For Signature by Lt Col Myers

Storm Water Pollution Prevention Plan Owner Certification

HAFB Storm Water Pollution Prevention Plan
Holloman Air Force Base, Otero County, New Mexico

I have reviewed this plan and agree that it meets the 2008 EPA NPDES criteria that was released on September 29, 2008. If you have any questions or comments pertaining to this plan, I will discuss them with you.

Will Desmare

Will Desmare

Please return to Will Desmare, CES/CEAN

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

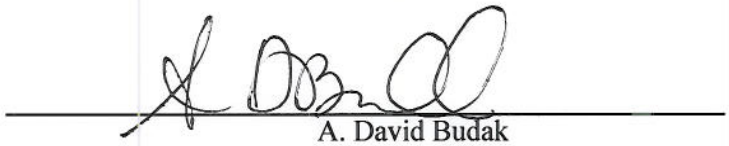
I certify, under penalty of law, that this document and all its attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. David Budak
Deputy Base Civil Engineer

The individual listed above is empowered to make this certification. Any other individual making this certification must be designated as a signatory authority, based on written delegation of authority from the Chief of Staff or the Installation Commander.

NON-STORM WATER DISCHARGES CERTIFICATION

In reference to the MSGP-2008 language, Section 4.4.1, I certify, under penalty of law, that a Cross-Connection Survey was conducted on HAFB to evaluate the presence of non-storm water discharges not allowed by the MSGP-2008. The Cross-Connection Survey, which utilized dry weather observation of storm drain outfalls, was completed in December 1994. All non-storm water discharges not allowed by the MSGP-2008/identified during the survey have been eliminated. Additionally, due to the size and nature of the HAFB Facility, the process of identification and elimination of illicit non-storm water discharges will continue as an ongoing activity. This process is supported through the Air Force Environmental Compliance Assessment Management Program, which requires mandatory annual investigations in addition to routine site and facility inspections.



A. David Budak
Deputy Base Civil Engineer

The individual listed above is empowered to make this certification. Any other individual making this certification must be designated as a signatory authority, based on written delegation of authority from the Chief of Staff or the Installation Commander.

NPDES FORM 3510 -6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT

Form Approved.
OMB No. 2040-0086

Submission of this completed Notice of Intent (NOI) constitutes notice that the operator identified in Section B of this form requests authorization to discharge pollutants to waters of the United States from the facility or site identified in Section C under EPA's NPDES Stormwater Multi-Sector General Permit (MSGP) for industrial stormwater. Submission of this NOI constitutes your notice to EPA that the facility identified in Section C of this form meets the eligibility conditions of Part 1.1 of the MSGP. Please read and make sure you comply with all eligibility requirements, including the requirement to prepare a stormwater pollution prevention plan. Refer to the instructions at the end of this form to complete your NOI.

A. Permit Number: NMR050000 (see Appendix C of the MSGP for the list of eligible permit numbers) **Tracking Number** (EPA Use Only):

B. Facility Operator Information

1. Name: Holloman Air Force Base

2. IRS Employer Identification Number (EIN): –

3. Mailing Address:

a. Street: 550 Tabosa Ave

b. City: Holloman Air Force Base c. State: NM d. Zip Code: 88330-

e. Phone: 575-572-3931 f. Fax (optional): 575-572-5080 g. E-mail: gabriel.desmare@holloman.af.mil

C. Facility Information

1. Facility Name: Holloman Air Force Base

2. Have stormwater discharges from your site been covered previously under an NPDES permit? ☑ YES ☐ NO

a. If yes, provide the Tracking Number if you had coverage under EPA's MSGP 2000 or the NPDES permit number if you had coverage under an EPA individual permit. NMR05A904

b.1 If no, was your facility in operation and discharging stormwater prior to October 30, 2005? ☐ YES ☐ NO

b.2 If no to C.2.b.1, did your facility commence discharging after October 30, 2005 and before January 5, 2009? ☐ YES ☐ NO

3. Location Address:

a. Street 550 Tabosa Ave

b. City: Holloman Air Force Base

c. County or similar government subdivision: Otero d. State: NM e. Zip Code: 88330-

f. Latitude: (use any one of the three formats provided.)
1. 32 ° 50 ' 00 " N (degrees, minutes, seconds)
2. ___ ° ___ . ___ ' N (degrees, minutes, decimal)
3. ___ . ___ ° N (degrees decimal)

g. Longitude: (use any of these 3 formats)
1. 106 ° 05 ' 00 " W (degrees, minutes, seconds)
2. ___ ° ___ . ___ ' W (degrees, minutes, decimal)
3. ___ . ___ ° W (degrees decimal)

h. Lat/Long Data Source: ☐ USGS topographic map ☐ EPA web site ☑ GPS ☐ Other: _____

If you used a USGS topographic map, what was the scale? _____

4. Estimated area of industrial activity at your site exposed to stormwater: 3,000 (acres)

5. Is this a federal facility? ☑ YES ☐ NO

6. Is your facility located on Indian Country lands? ☐ YES ☑ NO

If yes, name of reservation, or if not part of a reservation, put "Not Applicable:" _____

D. Discharge information

1. Does your facility discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ YES ☑ NO

If yes, name of MS4 operator: _____

2. Receiving Waters and Wetlands (**Note**: If additional space is needed for this question, fill out Attachment 1.)

a. What is the name(s) of your receiving water(s) that receive stormwater directly and/or through an MS4)? If your receiving water is impaired then identify the name of the impaired segment, if applicable, in parentheses following the receiving water name.	b. Are any of your discharges directly into any segment of an "impaired" water?	If you answered yes to question D.2.b, then answer the following three questions:		
		b.1. What pollutant(s) are causing the impairment?	b.2. Are the pollutant(s) causing the impairment present in your discharge?	b.3. Has a TMDL been completed for the pollutant(s) causing the impairment?
Lake Holloman	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
Lake Stinky	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
Lost River	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
Dillard Draw	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO

3. Water Quality Standards (for new dischargers only)

a. Are any of your discharges into any portion of a receiving water designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water)? ☐ YES ☑ NO

b. Has the receiving water(s) been designated by the state or tribal authority under its antidegradation policy as a Tier 3 water (Outstanding Natural Resource Water)? ☐ YES ☑ NO

4. Federal Effluent Limitation Guidelines and Sector-Specific Requirements

a. Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? ☐ YES ☑ NO

b. If yes, which effluent limitation guidelines apply to your stormwater discharges?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	Check if Applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities	E	☐
Part 418 Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	C	☐
Part 423	Coal pile runoff at steam electric generating facilities	O	☐
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	☐
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines	J	☐
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	☐
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills	K, L	☐

c. If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis? ☐ YES ☑ NO

5. Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as defined in MSGP:

Primary SIC Code: 4581 OR Primary Activity Code S1

6. Identify the applicable sector(s) and subsector(s) of industrial activity, including co-located industrial activity, for which you are requesting permit coverage:

a. Sector T1 Subsector 1 b. Sector K1 Subsector 1 c. Sector ___ Subsector ___

d. Sector ___ Subsector ___ e. Sector ___ Subsector ___ f. Sector ___ Subsector ___

7.a. Is your site presently inactive and unstaffed? ☐ YES ☑ NO

b1. If yes, is your site expected to be inactive and unstaffed for the entire permit term? ☐ YES ☐ NO

b2. If you select "no" in 7.b1 above, then indicate the length of time that you expect your facility to be inactive and unstaffed _____

E. Stormwater Pollution Prevention Plan (SWPPP) Contact Information

1a. SWPPP Contact Name: Will Desmare

b. Phone: 575-572-3931 Ext. ____ c. E-mail: gabriel.desmare@holloman.af.mil

2. URL of SWPPP (if applicable): _____

F. Endangered Species Protection

1. Using the instructions in Appendix E of the MSGP, under which criterion listed in Part 1.1.4.5 are you eligible for coverage under this permit?

☑ A ☐ B ☐ C ☐ D ☐ E ☐ F

2. If you select criterion E from Part 1.1.4.5:

a. What federally-listed species or federally-designated critical habitat are in your "action area?" _____

b. List the pollutants expected to be present in your discharge _____

c. If you are an existing discharger, do you have effluent monitoring data from EPA's MSGP 2000, or another previous NPDES permit? ☑ YES ☐ NO

c,1 If no, why not? ☐ No monitoring required for my sector ☐ Inactive/unstaffed site ☐ Other _____

c.2 Do you have any other data characterizing pollutants in your stormwater (describe)? _____

c.3 If you have benchmark monitoring data, did you exceed any of the applicable benchmarks? ☐ YES ☑ NO

c.4 Did you exceed any applicable effluent limitation guideline or cause or contribute to an exceedance of a State or Tribal water quality standard? ☐ YES ☑ NO

c.5 If you answered "yes" to either question F.2.c.3 or F.2.c.4 above, for what pollutant(s)? _____

d. Attach documentation supporting criterion E eligibility. Documentation should address species and habitat listed in F.2.a and the potential effects of pollutants listed in F.2.b (including any monitoring data for these pollutants) on the listed species and habitat.

3. If you select criterion F from Part 1.1.4.5, provide the operator's NPDES Tracking Number under which you are certifying eligibility: ____

G. Historic Preservation

Using the instructions in Appendix F of the MSGP, under which criterion listed in Part 1.1.4.6 are you eligible for coverage under this permit?

☑ A ☐ B ☐ C ☐ D

H. Certifier Name and Title

I certify under penalty of law that I meet the eligibility conditions of this permit and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Print Name: Jeffrey L. Harrigian

Title: Commander, 49th Fighter Wing

Signature: _____ Date: 6/11/09

E-mail: jeffrey.harrigian@holloman.af.mil

NOI Preparer (Complete if NOI was prepared by someone other than the certifier)

Prepared by: Will Desmare

Organization: 49 CES/CEAN

Phone: 575-572-3931 Ext. ____ E-mail: gabriel.desmare@holloman.af.mil

Holloman Air Force Base

Storm Water Pollution Prevention Plan

December 2008

49 CES/CEAN
550 Tabosa Avenue
Holloman AFB, New Mexico 88330

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STORM WATER POLLUTION PREVENTION PLAN
HOLLOMAN AIR FORCE BASE, OTERO COUNTY, NEW MEXICO

TABLE OF CONTENTS

Tables

Figures

Appendices

LIST OF ACRONYMS AND ABBREVIATIONS

AGE	Aerospace Ground Equipment
AST	Aboveground Storage Tank
BMP	Best Management Practice
CE	Civil Engineering
COD	chemical oxygen demand
CSCE	comprehensive site compliance evaluation
DMR	Discharge Monitoring Report
DRMO	Defense Reutilization and Marketing Office
EPA	Environmental Protection Agency
ft	feet
GAF	German Air Force
HAFB	Holloman Air Force Base
INRMP	Integrated Natural Resource Management Plan
IT	Implementation Team
µg/L	microgram per liter
mg	Milligram
mg/L	milligram per liter
MSDS	Material Safety Data Sheet
MSGP-2008	Multi-Sector General Permit
msl	mean sea level
ND	non-detect
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollution Discharge Elimination System
OWS	Oil/water separator
POC	Point of Contact
POL	petroleum, oil, and lubricants
PPM	potential pollutant material
PPT	Pollution Prevention Team
PVC	polyvinyl chloride

SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
TE	threatened and endangered
TKN	Total Kjeldahl Nitrogen
TSS	Total suspended solids
U.S.	United States
USAF	U.S. Air Force
USACE	U.S. Army Corps of Engineers
UST	Underground Storage Tank
VOC	volatile organic compounds

1 INTRODUCTION

On behalf of the United States (U.S.) Department of Defense, this Storm Water Pollution Prevention Plan (SWPPP) was prepared for Holloman Air Force Base (HAFB). This document addresses the pollution prevention requirements of the National Pollutant Discharge Elimination System, Storm Water Multi-Sector General Permit (MSGP-2008) for industrial activities. This plan was prepared in accordance with the requirements of MSGP-2008 as outlined in the Federal Register, Vol. 73, No. 189/Monday, Sep. 29, 2008, permit number NMR050000. This plan updates the January 2001 SWPPP and reflects minor operational changes and revisions to storm water management practices.

The purpose of this SWPPP is to (1) identify sources of pollution that could affect the quality of storm water discharges associated with industrial activities at HAFB, (2) describe and ensure implementation of practices to minimize and control pollutants in storm water discharges from these industrial activities, and (3) ensure compliance with the terms and conditions of the MSGP-2008.

Industrial activities at HAFB are subject to the requirements of Sectors S, K, and T of the MSGP-2008. The locations of individual buildings and structures are presented on figures within Section 3 for each of the drainage areas. Since these facilities are co-located at HAFB, a single Notice of Intent (NOI) was submitted to the U.S. Environmental Protection Agency (EPA) to authorize storm water discharges from the individual industrial activities. A copy of this NOI is included in Appendix A. In addition, facility-specific SWPPPs (broken out by the base drainage areas) are included in Section 3.

1.1 Endangered Species

Eligibility for the MSGP-2008 requires that the activities regulated by the permit pose no jeopardy to endangered species and critical habitat (MSGP-2008, Section 4.5). HAFB has been periodically surveyed (on a three-to-five year schedule) for federally-listed threatened and endangered (TE) species. Recent surveys have identified there are no TE species at HAFB. Therefore, HAFB meets Eligibility Criterion A under the MSGP-2008.

Although there are no federally-listed TE species of concern at HAFB, the following are New Mexico-listed species of concern:

- White Sands Pupfish
- Acarospora Clauzadeana Lichen
- Grassland neotropical migratory birds
- Western Burrowing owl
- Aplomado Falcon
- Grassland Raptors
- Bats
- Texas Horned Lizards

These species are managed in accordance with the HAFB Integrated Natural Resource Management Plan (INRMP). This plan was written by HAFB Environmental Flight personnel and approved by the U.S. Air Force, U.S. Army, U.S. Fish and Wildlife Service, New Mexico Department of Game and Fish, and U.S. Bureau of Land Management. The INRMP addresses storm water issues with respect to these species. Before new construction projects are started, the construction SWPPP must address whether these species

are present on the proposed construction land or if the proposed construction will affect them. Also, all outfalls are monitored and surveyed for the presence of these species, as well as any other TE species, on a three-to-five year schedule. There are no industrial storm water locations that adversely affect natural resources.

1.1 Historic Properties

Eligibility for the MSGP-2008 requires applicants to determine if storm water discharges, allowable non-storm water discharges, or construction of Best Management Practices (BMPs) could affect a historic property (MSGP-2008, Section 4.6). As reported by the 49 CES/CEV Cultural Resources Program Manager, HAFB surveyed over 360 archaeological sites and over 60 historic buildings on base. None of these sites are located in immediate proximity to storm water discharge points. Current industrial storm water activity has no adverse affect to cultural resources.

1.2 Certifications

Certifications are contained in the following pages.

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

I certify, under penalty of law, that this document and all its attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

MICHAEL L. MYERS, Lt Col, USAF
Commander, 49 CES

The individual listed above is empowered to make this certification. Any other individual making this certification must be designated as a signatory authority, based on written delegation of authority from the Chief of Staff or the Installation Commander.

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NON-STORM WATER DISCHARGES CERTIFICATION

In reference to the MSGP-2008 language, Section 4.4.1, I certify, under penalty of law, that a Cross-Connection Survey was conducted on HAFB to evaluate the presence of non-storm water discharges not allowed by the MSGP-2008. The Cross-Connection Survey, which utilized dry weather observation of storm drain outfalls, was completed in December 1994. All non-storm water discharges not allowed by the MSGP-2008/identified during the survey have been eliminated. Additionally, due to the size and nature of the HAFB Facility, the process of identification and elimination of illicit non-storm water discharges will continue as an ongoing activity. This process is supported through the Air Force Environmental Compliance Assessment Management Program, which requires mandatory annual investigations in addition to routine site and facility inspections.

MICHAEL L. MYERS, Lt Col, USAF
Commander, 49 CES

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2 General SWPPP Requirements

2.1 Introduction

Individual SWPPP subsections have been prepared for the eleven drainage areas to address the industrial activities of three industrial sectors on HAFB. These drainage area-specific sub-sections are included in Section 3.

2.2 Notice of Intent and Permit Language

A copy of the NOI will be included in Appendix A as required by Section 5.4 of the MSGP-2008.

A copy of the MSGP is provided in Appendix A as required by Section 5.4 of the MSGP-2008.

2.3 Pollution Prevention Team

The Pollution Prevention Team (PPT) provides structure and direction to HAFB's Storm Water Program The PPT is responsible for:

- Developing an accurate SWPPP.
- Revising both the SWPPP and control measures as site conditions change or as compliance inspections determine that new BMPs are required.
- Assisting in implementing all MSGP-2008 permit and SWPPP requirements.

PPT responsibilities and positions are listed in Tables 2.3-1 and 2.3-2.

2.4 Implementation Team

The Implementation Team (IT) works with the PPT to ensure the SWPPP is implemented correctly and in a timely fashion. The IT members also monitor their respective areas and recommend ways to alleviate problem areas through changes in operations, equipment, layout, and/or materials. The IT members consist of the various Unit Environmental Coordinators. Member responsibilities and positions for both teams are listed in Tables 2.3-1 and 2.3-2. A roster of the personnel assigned to the team is presented in Appendix F.

Table 2.4-1 Pollution Prevention and Implementation Team Responsibilities

Number	Description
1	Signature authority for the SWPPP, NOIs, and Notices of Termination (NOTs)
2	Signature authority for certifications and all other documents prepared in accordance with the Holloman AFB NPDES permit *(Note: requires letter from base commander delegating this authority to this individual).*
3	Review storm water documentation and ensure legal compliance
4	Ensure compliance inspections and training are performed and BMPs implemented.
5	Ensure compliance with federal, state, local and Air Force regulations.
6	Oversee activities and programs of environmental concern installation-wide.
7	Oversee the development of plans, programs, and procedures involving environmental issues.
8	Installation storm water program manager.
9	Coordinate revisions to the SWPPP.
10	Obtain and maintain all necessary permits for proper control of industrial storm water discharges.
11	Maintain a central file of all documents pertaining to SWPPP.
12	Oversee implementation of storm water monitoring and initiate corrective action measures as necessary.
13	Ensure all active and proposed installation construction activities comply with SWPPP requirements; i.e. (1) comply with regulatory requirements, (2) coordinate construction BMPs to minimize storm water contamination, and (3) design guidelines for BMPs for storm water management as related to construction activities.
14	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 001.
15	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 002.
16	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 003.
17	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 004.
18	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 005.
19	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 006.
20	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 008.

21	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 009.
22	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 011.
23	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 012.
24	Coordinate implementation of SWPPP, maintain records and training requirements, and ensure completion of all inspections for facility-specific portions of Drainage Area 014.
25	Technical Advisor
26	Provide technical/maintenance support and perform sampling

Table 2.4-2 Pollution Prevention & Implementation Teams

PPT Member Position	Responsibilities
49 FW Commander	1
Staff Judge Advocate	3
Deputy Base Civil Engineer	2
Environmental Flight Chief	5, 6, 7
Storm Water Quality Program Manager	4, 8 through 26
Storm Water Subcontractor	25. 26
46 Test Group/XP Environmental Coordinator, Drainage Area 008	20
M-1 Facilities Environmental Coordinator, Drainage Area 001, 004, 011	14, 17, 22
German Air Force Environmental Coordinator, Drainage Area 001	14
49 CES Environmental Coordinator, Drainage Area 002	15
49 LRS/LGRVM Environmental Coordinator, Drainage Area 002	15
Newtec Facilities Environmental Coordinator, Drainage Area 005, 008	18, 20
49 MXG Environmental Coordinator, Raptor Flight Line Drainage Area 004	17
49 MXS Environmental Coordinator,	17

Drainage Area 004	
49 LRS Environmental Coordinator, Drainage Area 004, 001, 002	17, 14, 15
49 MMG Environmental Coordinator, Drainage Area 006	19
DRMO Environmental Coordinator, Drainage Area 002	15
49 SVS, Auto Hobby Environmental Coordinator, Drainage Area 001	14
POL, 49 LRS, Drainage Area 001, 002, 003, 004	14, 15, 16, 17
Entomology, Drainage Area 002	15
46TG, Bldg 1079, Drainage Area 012	23
49CES/CEV, Rubble Area Coordinator, Drainage Area 014	22

2.5 Description of HAFB

HAFB is located in Otero County, 8 miles southwest of Alamogordo, New Mexico. The base is approximately 90 miles north of El Paso, Texas, and 200 miles south of Albuquerque, New Mexico (Figure 2-1).

The base is situated in the Tularosa Basin near White Sands National Monument and covers approximately 57,000 acres. The Tularosa Basin is bounded 8 miles to the east by the Sacramento Mountains and 20 miles to the west by the San Andres Mountains.

Elevations within the basin range from 4,400 feet (ft) above mean sea level (msl) in the northeast corner to 4,000 ft msl in the southwest corner, sloping downward to the southwest. Elevations at the base range from 4,100 to 4,028 ft msl. The base is crossed by several arroyos or intermittent streams. These arroyos include Lost River, Dillard Draw, Malone Draw, and several smaller tributaries such as Red Arroyo and Arroyo Lavacita. The arroyos generally drain in the southwest direction. Lost River is fed by ground-water seeps and springs. The river appears and disappears as the springs add water that is subsequently lost to evaporation and infiltration.

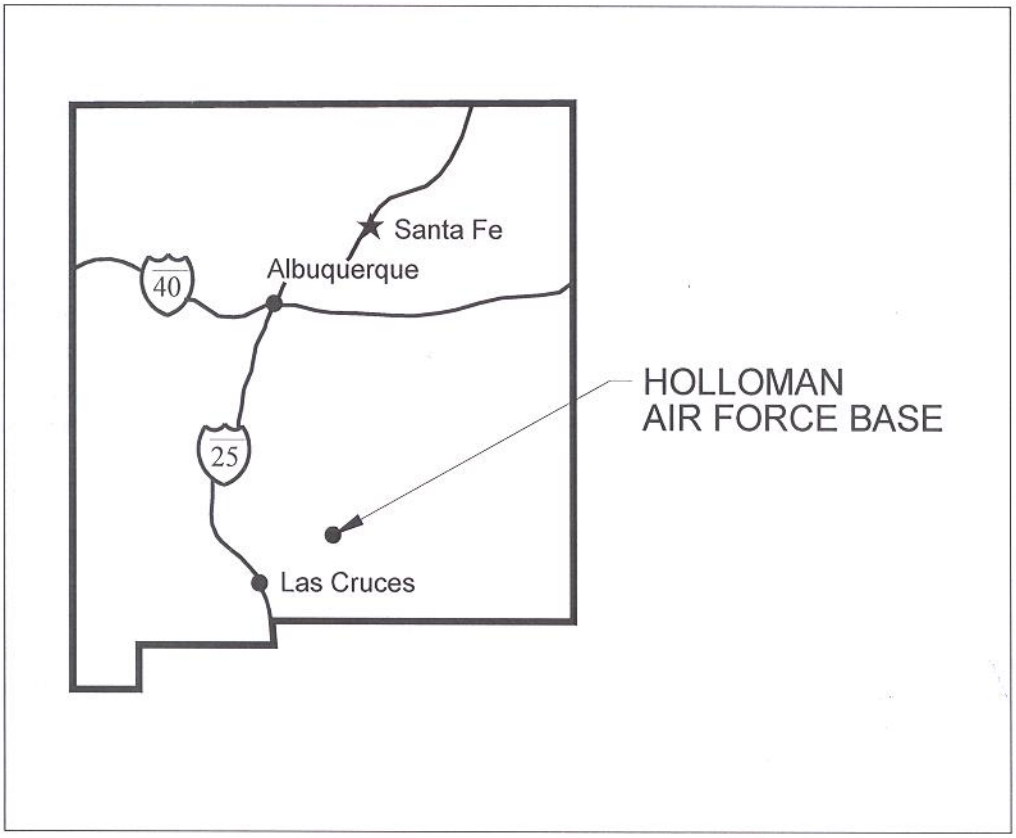

Figure 2-1. Location of HAFB

The climate is arid with low relative humidity and an annual average rainfall of between 8 and 9 inches. The mountain ranges to the east and west of the base affect local weather, producing summer thunderstorms. HAFB receives most of its annual rainfall between June and October (average monthly rainfall of one inch). The winter is generally dry, characterized by strong southerly winds and periods of blowing dust and sand (average monthly rainfall of 0.37 inches).

2.5.1 Description of HAFB Operations

HAFB opened in 1942 as a bomber training base and was briefly deactivated after World War II. In 1946, the base was reactivated as a guided missile research and test facility. In 1971, the Tactical Air Command (now the Air Combat Command), took over the base. HAFB is the home of the 49th Fighter Wing and several tenants. The core mission of HAFB is to support national security objectives with F-22 fighter capabilities as well as BEAR Base deployment capabilities. Other missions are supported, including many from the early missile research period, such as the High Speed Test Track and Phillips Balloon Laboratory. Also, the German Air Force has a training wing stationed at HAFB.

A base-wide map showing building locations and storm water drainage outfall locations is provided as Appendix G. Individual drainage area maps are included in the drainage area SWPPP subsections.

Individual facilities are also discussed in detail with regard to the storm water management program in the individual drainage area SWPPP subsections.

2.5.2 Description of HAFB Drainage Areas

Throughout HAFB, storm water is conveyed through drainage channels, underground piping (storm sewers), and sheet flow. In general, topography of the base dips to the south-southwest and, correspondingly, storm water flows in a southerly direction across the base. Eleven drainage areas have been identified as possible sources of storm water pollution. Table 2.5-1 summarizes the estimated drainage area and runoff coefficient of the 11 drainage areas. Table 2.5-2 summarizes the industrial facilities, building numbers, and U.S. EPA industrial sectors as they apply to individual facilities within the 11 drainage areas.

Table 2.5-1 Drainage Area Characteristics

Drainage Area	Estimated Size of Drainage Area (acres)	Estimated Runoff Coefficient a
001	231	High
002	113	High
003	18	High
004	303	High
005	64	High
006	157	High
008	27	Medium
009	3	High
011	16	High
012	79	High
013	42	Low

Table 2.5-2 HAFB USEPA Industrial Sectors Applicable By Drainage Area

Drainage Area	Name of Facility	Building Numbers	Applicable USEPA Sector [a]
001	Main Flight Line (USAF)	292, 293, 296, 297, 301, 302, 303, 304, 306, 310, 311, 313, & 318	S
	Auto Craft Shop	231	S
	German Air Force	285, 286, 287, 288, 294, 295, 314, 316, 11285, 21295, & 21297	S
	Fuel Tank Servicing Hangar	315	S
	Test Cell	638 & 639	S
	M-1 Support Services	279, 280, 282, 284, 300, 308, 309, 500 & 508	S
002	AAFES- Auto Shop	33	S
	Base Supply	North of Bldg 140	P
	Base Transportation	93, 137, 193, 195 & 198	P
	Civil Engineering (CE)	51, 54, 55, 56, 58, 59, 60, 61, 113, 114, & 115	P
	Defense Reutilization and Marketing Office (DRMO)	111, 112, 116, 117 & 118	K
	90-Day Storage	149	K
	German Air Force	105	S
003	POL	701, 702, & 703	S
004	Hazmart Pharmacy	806	K
	F22 (Raptor) Squadron	800, 816, 817, 820, 822, 823, 828, 866, 868, 877, Hangar Buildings 21809-21819 other facilities	S
	(Hush Houses)	11648, 11649	S
005	Aerospace Fuel Testing Laboratory	837, 838, 839, & 840	S
	Newtec Vehicles	841, 842, 843, 844, 848, 880, 856, 881, 897, 899, 1180	S
	Non-Destructive Inspections (NDI)	851 & 852	S
	Phillips Balloon Laboratory	849, 850, 853, 858, & 854	S

006	Materiel Maintenance Group (MMG)	901, 902, 903	S
008	Test Track Support Facilities	1173, 1176, 1178, 1178A, 1185, numerous other facilities	S
009	Wastewater Treatment Plant	N/A	T
011	T-38 Operations Facility	577, 578, 579 & 580	S
012	Army Air Operations Directorate	1028, 1058, 1059, 1073, 1079, 1080 & 1083	S
	46th Test Group	1074, 1084, 1085, 1086, 1087 & 1089	S
	Detachment 1, 82nd Aerial Target Squadron	1072, 1073, 1074, 1058, 1059 & 1080	S
013	Concrete Crushing Area	New Concrete Sector	S

2.6 Receiving Waters and Wetlands

All drainage areas have been identified as potentially contributing to waters of the United States (i.e., wetlands, and flowing and intermittently flowing rivers, creeks, or streams, etc.).

In 2006, the Supreme Court directed the U.S. Army Corps of Engineers (USACE) to re-define the terms wetlands and waters of the United States. The USACE was also directed to re-evaluate previously declared waters of the US and wetlands to determine if they meet the new criteria. The USACE has not re-evaluated any drainage areas in or around HAFB. HAFB will continue to use previously identified waters of the US and wetlands until the USACE can determine otherwise.

2.7 Potential Pollution Sources

The potential pollutant sources are identified for each drainage area in Section 3.

2.8 Potential Spills and Leaks

The areas where potential spills and leaks could occur are identified for each drainage area in Section 3. Spill records showing the date and time of each spill, time of notification to responsible base personnel, spill location, substance and estimated amount spilled, cause of spill, and corrective action taken are included in Appendix C. These records are maintained by the HAFB 49 CES/CEAN office.

2.9 Sampling Data

In compliance with the MSGP-2008, HAFB is required to conduct visual and analytical monitoring of storm water as discussed below:

- Visual inspection of storm water samples involves the collection of storm water samples generated at the facility. The storm water samples are qualitatively assessed by inspecting the sample for color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, or other obvious indicators of storm water pollution. If there is any reason to suspect storm water contamination (such as presence of an oil sheen), then analytical monitoring is performed as well as an investigation to determine the source of the contamination. Subsequent documentation will be retained as part of the SWPPP.

- Analytical monitoring involves the collection and laboratory analysis of storm water samples. For benchmark comparison, the analyses will be used to assess changes in storm water quality resulting from the implementation of pollution control measures and BMPs. These requirements are listed for each Drainage Area in Section 3.

Analytical monitoring results are reported to the U.S. EPA Region 6 in accordance with the applicable sector of the MSGP-2008. All monitoring records are retained as part of the SWPPP. Storm water sampling data are summarized in the drainage area-specific SWPPP sections.

2.10 Storm Water Controls

The MSGP-2008 requires the implementation of BMPs, site inspections, and training programs to minimize storm water pollution. HAFB's approach to these measures is discussed below in Sections 2.10.

To further prevent pollution of storm water by hazardous materials, all facilities at HAFB operate through the HAFB pharmacy system. Hazardous materials are requisitioned on an as-needed basis, and only limited quantities of hazardous materials are stored at a facility at any given time. Potentially hazardous wastes are also routinely removed from each facility. These measures limit the quantity of hazardous material that can be released at any given time.

2.10.1 BMP's

Storm water pollution from permitted facilities shall be minimized by implementing BMPs that limit storm water from coming into contact with potential pollutant sources. The BMPs include processes, procedures, schedules of activities, prohibitions on practices, and other management measures undertaken to prevent or reduce pollutant runoff during storm events. The BMPs are numbered for ease in correlation to the overall BMP list from section-to-section of the SWPPP. Listed BMPS are grouped into categories related to eight areas of industry practice that are recognized as areas that can improve protection and quality of storm water.

Nonstructural control areas include:

- good housekeeping,
- preventive maintenance,
- spill prevention and response,
- visual inspections,
- employee training, and
- recordkeeping and reporting.

Structural control areas include:

- sediment and erosion control, and
- runoff management.

A series of specific BMPs for each of these categories are summarized in Table 2.10-1. The BMPs described in Table 2.10-1 are based on recommendations provided by the U.S. EPA 833-F (2006 Fact Sheets) and are in use by HAFB.

Certain BMPs are Program and Planning BMPs and are administered by 49 CES/CEV. This office evaluates regulatory requirements and develops base-wide programs, planning documents, and policies. They distribute program and planning information and provide training, as needed, to base personnel. Base facility environmental coordinators support these program and planning BMPs by adopting standard policies indicated in these documents.

Structural BMPs pertain to facility equipment and real property improvements related to storm water management and the maintenance programs for these devices. Structural BMPs are programmed, installed, operated, and maintained by the Civil Engineering (CE) function. The 49 CES/CEV supports these Structural BMPs by providing regulatory justification and documentation for identified improvements or modifications. The 49 CES/CEV and facility personnel support Structural BMPs by identifying needed improvements, repairs, or maintenance activities. Base facility environmental coordinators support Structural BMPs by ensuring proper use of installed BMPs and notifying CE in the event of needed upgrade, repair, or maintenance. However, these BMPs are not directly related to day-to-day operating procedures at individual facilities.

Standard Operating Procedure (SOP) BMPs are behavior-based management practices that are implemented by facility personnel during day-to-day activities. Base facility environmental coordinators ensure shop personnel are aware of SOP BMPs, evaluate facility conditions and practices to ensure SOP BMPs can be implemented, and monitor that SOPs are being followed. The 49 CES/CEV supports SOP BMPs by providing training or information to facility personnel and periodically inspecting facility procedures to ensure compliance with applicable BMPs. The CE function supports SOP BMPs by programming and installing any needed structural improvements to allow proper implementation of SOP BMPs.

Table 2.10-1 Best Management Practices (BMP's)

Best Management Practice		Description
Good Housekeeping		
1	General	Maintain material and chemical storage areas in a clean and orderly manner.
2	Cleaning of maintenance bay floors by methods other than hosing and washing	Maintain clean, dry floors using brooms, shovels, vacuum cleaners or cleaning machines to prevent discharge of potential pollutant materials (PPMs) through bay doors to exterior of building.
3	Janitorial Services	Never dispose of mop water in a storm drain. Always dispose of mop water in a facility drain (such as the janitor's closet) that flows to the sanitary sewer and water treatment facility.
4	Used battery recycling	Immediately recycle used batteries in accordance with the Pollution Prevention (P2). Management Plan to promote recycling of materials and reduction of waste. If the weight of the batteries is less than two pounds, ship them to the 90-day site. If the weight of the batteries is more than two pounds, ship them to DRMO.
5	Metals recycling	Metals intended for recycling should be put in a storm water compliant dumpster (covered container). Keep the lid of the dumpster closed. Ship to DRMO when the dumpster is full. Do not overfill the dumpster.
6	Containment of wastes	Designate waste storage locations where materials are contained (bermed). Cover when possible to prevent contact with storm water runoff and to reduce the risk of contamination from accidental spills. Segregate all waste to promote better handling and enhance recycling efforts.
7	Aircraft Wash Rack	Wash all aircraft on approved wash racks (building 306 on the main flight line, and Building 898 on the west end). These wash racks contain an oil/water separator (OWS) that discharges to the sanitary sewer.
8	Label outdoor storage containers	Clearly label all outdoor storage containers with contents (e.g., "used oil" or "JP-8 for recycle").
9	Removal of fluids from incoming wrecked vehicles	Remove fluids from wrecked or damaged vehicles (which often drip oil and other fluids) to prevent spills or leaks of PPMs.
Preventive Maintenance		
10	Testing of tanks for structural integrity	Conduct non-destructive pressure and vacuum testing for Aboveground Storage Tanks (ASTs) in accordance with Joint Forces Manual UFC-460-03F (Operation and Maintenance of Petroleum Systems) to locate potential leaks or damage to storage vessels. 49 CES/CEOU is responsible for structural integrity testing. Testing ensures early detection of structural failure to prevent significant spills or leaks.

Table 2.10-1 Best Management Practices (BMP's)

Best Management Practice		Description
11	Routine maintenance of oil/water separators	Routinely inspect, clean, and maintain the OWS for effective operation. When the OWS is close to capacity, contact the 49 CES/CEV OWS program manager for coordination with a contractor to remove the oil sludge and clean the OWS (Contract Number FA 4801-08-P-0063). Clogging and overflow of the OWS represents a potential discharge of pollutants to the storm water system.
12	Facility Roof Maintenance	When performing maintenance on facility roofs, pick up all excess tar, insulation, sealants and other roofing materials. Clean the work area prior to leaving. See AFI 132-1051, Roof System Management.
13	Facility Equipment Maintenance	When performing maintenance on facility equipment, use drip pans or secondary containment and clean up all used fluids and debris prior to leaving the area.
Spill Prevention and Response		
14	Fuel spills cleaned other than by hosing/washing	Avoid using water to wash fuel spills. Wash water may transport fuel, oil, and grease into the storm sewer. Use absorbent materials for cleaning up all petroleum-related spills. Clean spills in accordance with the HAFB SPCC Plan (Appendix J).
15	Oil/grease collection traps	Install OWSs and oil and grease traps to reduce the amount of oil entering storm drains. Routinely inspect, clean, and maintain these devices.
16	Grease Trap Maintenance	BMP for grease traps is addressed in the Grease Interceptor Management Plan (dated January 2008). ECAS Contract NO. FA 4890-04-D-0005, Task Order No. 5015. This plan is managed by the 49 CES/CEV Grease Interceptor Project Manager.
17	Provide secondary containment around above ground storage tanks	Ensure all ASTs have secondary containment that meet the requirements of 40 CFR 112.
18	Emergency spill control stations and supplies	Install and, identify by signs, designated emergency spill control stations that include safety equipment (i.e., eye protection, protective clothing, and fire extinguisher) and cleanup equipment (i.e., brooms, barriers, sweeps, absorbents, and containers)
19	Use Standard Fueling Procedures for aircraft	All fueling of T-38s is accomplished in accordance with TO-IT-38A-2-SC2-1 (Organizational Maintenance, Refueling/defueling Procedures, USAF Procedures). All fueling of the F22 Raptor is accomplished in accordance with PMA-IMUS-Task Number F702726144. All fueling of German Air Force (GAF) Tornados is accomplished in accordance with GAF T.O.1F-PA200-2-2.
20	Vehicle Wash Rack	Wash all vehicles and equipment at a washrack that contains an

Table 2.10-1 Best Management Practices (BMP's)

Best Management Practice		Description
		OWS that discharges to the sanitary sewer.
21	Spill overflow prevention equipment	Install equipment to prevent fuel overflow during storage tank filling, which is a major source of spills. Overfill prevention equipment automatically shuts off flow, restricts flow, or sounds an alarm when the tank is almost full.
22	Protection of fueling areas from precipitation/runoff	Follow fueling procedures in accordance with Joint Forces Manual UFC-3-460-03F (Operation and Maintenance of Petroleum Systems) to minimize fuel spills and leaks from coming into contact with storm water. Consider covering fueling areas and paving the fuel areas with concrete instead of asphalt (asphalt soaks up fuel and can become a source of storm water contamination).
23	Drip pans/pads used to minimize spills	Use drip pans or pads to catch and contain small volumes of solution from leaks, drips, and spills that occur from an activity so that materials or chemicals can be cleaned up easily or recycled before they are released to storm water.
24	Solvents reuse/control	Use an on-site solvent recovery unit to recycle dirty solvent for reuse. Dirty solvent can be used for presoaking dirty parts before cleaning parts in fresh solvent. Waste solvent is removed and disposed of off-site every twelve weeks via an off-site contractor under the direction of the 49 CES/CEV Environmental Flight. Unused solvents can be turned into HAZMART in accordance with established procedures.
25	Use of absorbent materials for cleaning up liquid spills and leaks	Use absorbent materials (dry sweep) for activities with liquid materials on-site. Absorbent materials can be used in conjunction with curbing to provide cleanup of small spills within a containment area. Clean all spills in accordance with the HAFB Spill Prevention, Control, and Countermeasure (SPCC).
26	Centralized parts cleaning stations	Contain the use of solvents and other cleaning compounds to designated areas to promote safer handling and to minimize risks of spills. Waste solvent is removed from the base by a private contractor every twelve weeks under the direction of the 49 CES/CEV solvent recovery program manager.
27	Control of Hazardous Wastes	All transfers of hazardous waste are accomplished, at a minimum, on a secondary containment structure.
28	Berms or site grading at fueling areas	Construct berms to contain spills within fueling areas to prevent storm water run-on/off and contain spills to allow control measures to be implemented. Clean all spills in accordance with the HAFB SPCC plan.
29	Indoor facilities for bulk material storage and equipment maintenance	Limit bulk material storage and equipment maintenance operations to controlled environments, thus reducing risk of contact with storm water. All interior operations are managed through appropriate spill prevention and control procedures.
Visual Inspections		

Table 2.10-1 Best Management Practices (BMP's)

Best Management Practice		Description
30	General	Ensure all elements of the SWPPP are in place and working properly by conducting visual inspections.
31	Routine inspection program for all tanks	Inspect all petroleum or liquid-chemical storage tanks and drums for corrosion or damage to tanks, tank supports, drain valves, and fill ports in accordance with Joint Forces Manual UFC-3-460-03F (Operation and Maintenance of Petroleum Systems). Inspect tanks for signs of leaking or improperly closed valves. Review UST LDS records for indications of a leak.
32	Signs/labels on containers	Look for signs and labels at problem areas or on hazardous materials that provide information and instructions on the use of materials and equipment. Signs and labels should be visible and easy to read and should include emergency information.
Employee Training		
33	General Training	Ensure all personnel are trained in accordance with section 2.10.2. Forward all training records and documentation to the 49 CES/CEV Storm Water Program Manager in Building 55.
ediment and Erosion Control		
34	Nonstructural erosion and sediment transport control	Where possible, preserve natural vegetation for storm water control. Revegetate or stabilize disturbed areas as soon as practicable to minimize erosion potential, protect water quality, and provide aesthetic benefits. Natural vegetation provides infiltration, removes sediments and other pollutants, and reduces the flow and velocity of storm water.
Recordkeeping and Reporting		
35	Inventory of PPMs	An inventory of all chemicals and hazardous materials used at HAFB is kept in the EMIS database maintained by the 49 CES/CEV Environmental Flight in Building 55. This database is maintained by the Hazardous Materials and Hazardous Waste Program managers.
36	Material safety data sheets (MSDSs) for all PPMs identified in inventory	Maintain MSDSs for all PPMs currently stored and/or used at the facility. Identify locations for MSDS through training and signs.
De-icing		
37		Minimize the amount of de-icing fluid used by following approved de-icing procedures.
38		Establish centralized de-icing locations where sub-surface drainage is minimized

Table 2.10-1 Best Management Practices (BMP's)

Best Management Practice		Description
39		If practical, de-ice over an OWS where the effluent will go to the sanitary sewer
40		If practical, reduce the amount of de-icing fluid required by using hangar storage, solar radiation,
Note: These BMPs are based on recommendations provided by the U.S. EPA [EPA-833-F-06-Series] 2006		

2.10.2 Training

Employee training is an integral part of the storm water management program at HAFB. Employees responsible for implementing BMPs shall be informed about the applicable components of the HAFB SWPPP. At a minimum, all training shall address the following topics:

- Good housekeeping
- Spill prevention and response
- Material management practices

Training shall be documented and maintained by the Storm Water Program Manager or assigned representative. The schedule and specific topics for training shall be developed by the PPT. At a minimum, training shall be conducted annually, when a new employee is hired, or when new contractor personnel are mobilized at a facility covered under the SWPPP. Training documents are included in Appendix E.

2.11 Non-Storm Water Discharges

Non-storm water discharges authorized under the MSGP-2008 include discharges from incidental cooling tower mist (subject to certain requirements), fire-fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine exterior building washings that do not use detergents or other compounds; pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents were not used; air conditioning condensate; uncontaminated springs; uncontaminated groundwater; and foundation or footing drains where flows are not contaminated with process materials. The MSGP-2008 requires that these discharges be identified in the SWPPP to obtain coverage under the permit. These discharges currently occur at HAFB or may in the future during the effective duration of the MSGP-2008. In addition to the potable water sources listed above, the flushing of portable water heaters during routine maintenance may result in potable water discharges to the storm water system. Specifically, during maintenance of the water heaters, which is conducted in Buildings 901 and 902, clean water is run through the heaters to prevent cracking of the heater liners. This water is then discharged to the floor drainage trenches and routed to the storm water drainage system.

Additionally, non-storm water discharges to the storm water drainage system were identified during the August-September 1997 (and subsequent) site visits. The non-storm water discharges occurring at Outfall 001 and Outfall 002 have been identified as uncontaminated groundwater intrusion and infiltration. Field observations at the time confirmed these discharges were not from surface water sources, and testing indicated they were not from a potable water line leak. Groundwater at HAFB varies

from ground level to roughly 20 feet below ground surface with an average depth to groundwater of approximately 5 feet. A more detailed assessment of these non-storm water discharges was performed during the site inspections of 1997 and 1998. These assessments are provided in Appendix I for reference purposes. Evaluation of these non-storm water discharges was performed during the permit term of the MSGP-1995, and HAFB has no reason to believe conditions have changed. Per Section 1.1.4.1 of the MSGP-2008, these non-storm water discharges do not have to be re-investigated.

2.12 Site Inspections

The effectiveness of the SWPPP and implementation of the drainage area-specific BMPs will be monitored by outfall inspections and annual site compliance evaluations.

SWPPP inspections of drainage areas shall be conducted by the Storm Water Manager, that person's designee, or an assigned representative identified by the PPT, along with the Unit Environmental Coordinator for the area being inspected. Drainage area outfall inspections will be conducted quarterly to assess the condition of the outfall and whether there is a potential storm water pollutant issue upstream of the outfall. Personnel conducting the inspections are required to:

- Inspect equipment and areas of the storm water outfall to verify that storm water pollution control measures are functioning as intended.
- Institute response actions to correct identified deficiencies.
- Complete and certify an *Inspection Checklist* (included in Appendix D) following each inspection. All *Inspection Checklists* will be maintained with the master SWPPP for at least 3 years after the date of the inspection.

A comprehensive site compliance evaluation (CSCE) shall be conducted annually. Where the frequencies of the CSCE and site inspections overlap, the annual inspection will be performed in lieu of the quarterly inspection). Qualified personnel identified by the PPT will conduct subsequent CSCEs in accordance with the following protocol:

- Inspect facility areas contributing to storm water discharge for evidence of and potential for adverse impacts to water.
- Evaluate pollution and erosion control equipment for its effectiveness at controlling storm water pollution. Recommendations for additional pollution control measures will be made where deficiencies are noted.
- Confirm the accuracy of the descriptions of potential pollution sources contained in this document and revise as necessary.
- Assess compliance with the terms and conditions of the permit.
- If the CSCE reveals that the SWPPP or current BMPs are ineffective in eliminating or significantly minimizing pollutants to storm water, the HAFB SWPPP should be modified within 14 calendar days of the CSCE completion.
- If the CSCE identifies areas where current BMPs are ineffective in eliminating or significantly minimizing pollutants in storm water discharges, any changes to pollution and erosion control measures should be implemented within 12 weeks (per the MSGP-2008) of the CSCE completion.

- Complete an *Inspection Checklist* (Appendix D) following each inspection. The *Inspection Checklist* shall be certified by a qualified person identified by the PPT. All *Inspection Checklists* will be maintained with the site-wide SWPPP for at least 3 years from the inspection date.

In the event of a significant spill or discharge, additional site inspection procedures will occur:

- The Fire Department institutes appropriate emergency remedial actions.
- 49 CES/CEV documents the spill or discharge using the HAFB spill report form and spill log database.
- Based on the results of the site inspection, 49 CES/CEV ensures identified deficiencies are restored to the correct environmental/operational condition or implements additional BMPs to reduce likelihood of a future spill or release.

2.12.1 Control Measures

In addition to facility-specific requirements, Section 2 of the guidance for preparation of NPDES permit applications (MSGP-2008) requires that all SWPPPs address other special conditions. These are outlined in Sections 2.3.12.1 through 2.3.12.3 below.

2.12.1.1 Hazardous Substances or Oil

This SWPPP, in conjunction with the HAFB Hazardous Material Plan (Appendix H), is in place to prevent the discharge of hazardous substances or oil into storm water. Releases and spills in excess of a reportable quantity are addressed according to the notification requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302. In addition, the SWPPP will be modified within 14 calendar days of the event. There are no anticipated discharges at HAFB.

2.12.1.2 Salt Storage Facilities

There are no salt storage facilities at HAFB; therefore, this requirement is not addressed in this SWPPP.

2.12.1.3 Discharge Compliance with Water Quality Standards

Storm water discharges at HAFB are in compliance with Water Quality Standards as required in Section 2.2 of the MSGP-2008.

2.13 References

U.S. U.S. EPA, 2008. Final Reissuance of the National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit for Industrial Activities; 73 *Federal Register,* Vol. 73, No. 189, September 29, 2008 (see Appendix A).

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3 DRAINAGE AREA SWPPP OVERVIEW

The following sections summarize the requirements for each drainage area identified at HAFB.

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3.1 Drainage Area 001

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities located within Drainage Area 001 include the Main Flight Line, Auto Craft Shop, Aerospace Ground Equipment (AGE) Refueling, Fuel Hangar (Bldg 315), Base Supply, Aero Club, T-38 Test Cell, and GAF.

3.1.1 Drainage Area Description

Drainage Area 001 is located on the southeastern side of HAFB and has an estimated size of 231 acres (Figures 3-1a and 3-1b). The approximate center of Drainage Area 001 is at 32° 50' 33" latitude and 106°05' 13" longitude. This area includes Taxiways A and B, the main ramp, and support operations.

3.1.2 Implementation Team for Outfall 001

The primary Points of Contact (POC) for Drainage Area 001 are:

- T-38 Consolidated Aircraft Maintenance Contract Environmental Coordinator
- German Air Force Environmental Coordinator
- 49th LRS Environmental Coordinator
- 49th SVS, Auto Hobby Shop Environmental Coordinator
- 49th LRS, POL, Environmental Coordinator

3.1.3 Description of Pollution Sources and Inventory of On-Site Chemicals

Compliance site inspections were conducted at Drainage Area 001 in October 2007 and April 2008 to identify pollution sources and inventory on-site chemicals.

The pollution sources at the facilities located within Drainage Area 001 include fuels (jet fuel, aviation gas, diesel fuel, and unleaded gasoline), vehicle fluids (new and used oil, hydraulic and lubrication oils, and antifreeze), volatile organic compounds (solvents and cleaning agents, paints, paint thinners and strippers, adhesives), and cleaning fluids/detergents. Additionally, some amounts of scrap metal and hazardous materials are stored in various facilities within this drainage area.

.**Figure 3-1a. Drainage Area 001**

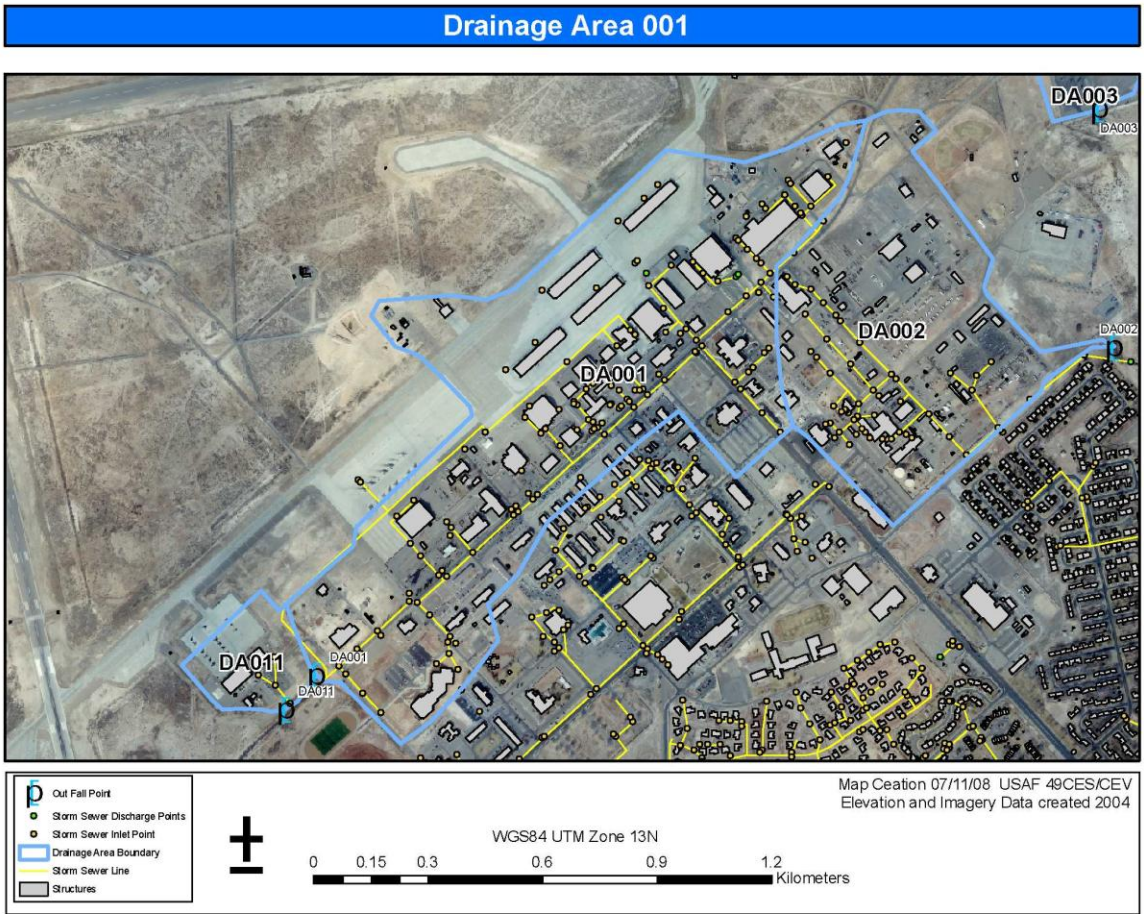
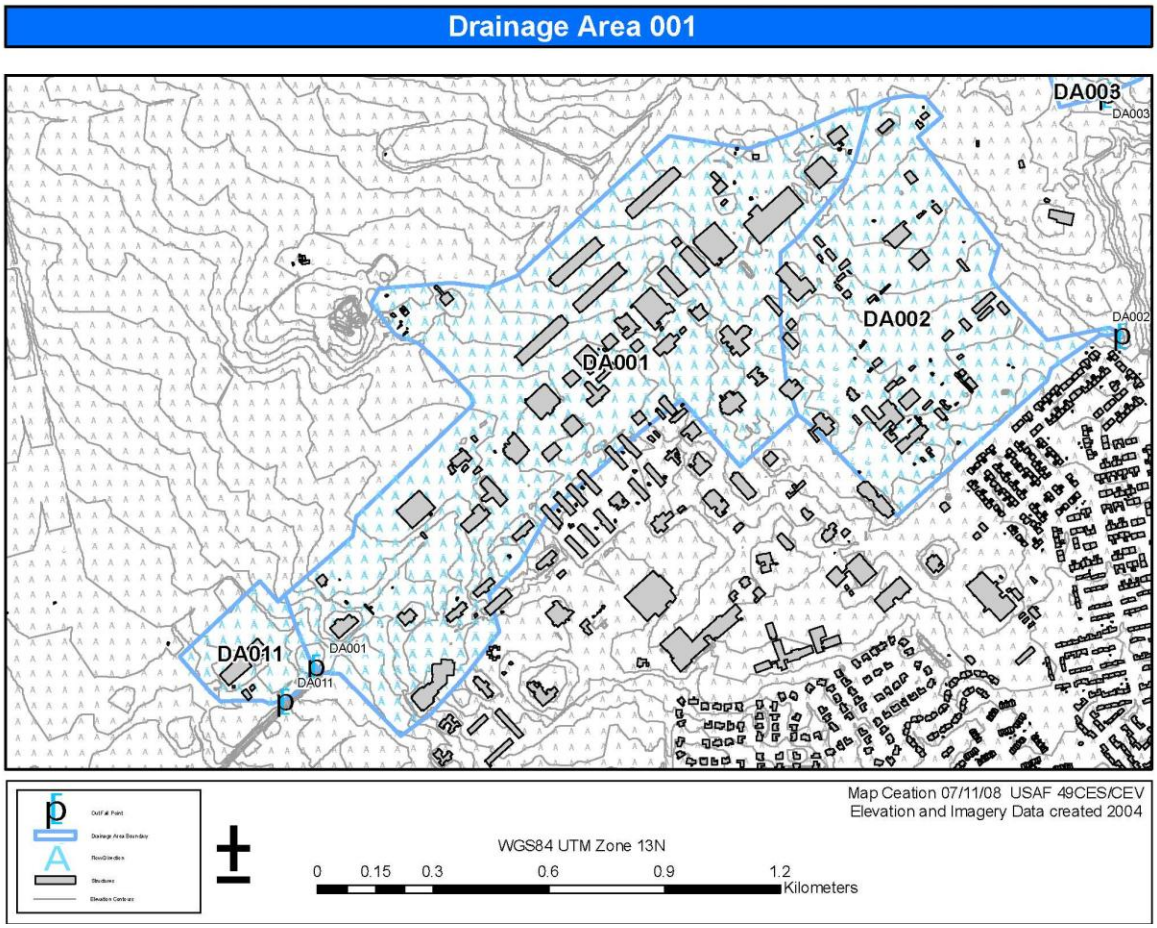


Figure 3-1b. Drainage Area 001



3.1.3.1 Facility Drainage

Drainage Area 001 consists primarily of paved streets, aprons, and parking areas. Most open areas in and around the area are naturally vegetated or xeriscaped with gravel and native plants to help reduce sheet flow runoff. Storm water runoff from individual sites or buildings generally enters the roadways where it flows into storm drains. Other sheet flow runoff flows southwest. There are over 100 (~106) storm drains within the drainage area. Effluent flows to a constructed wetlands area and periodically discharges into Lake Holloman.

3.1.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows from Drainage Area 001 would include petroleum hydrocarbons (associated with fuels or vehicles) and suspended solids from eroded soils (non-vegetated open areas or dirt parking areas). It is unlikely that other volatile and semi-volatile organic compounds associated with painting materials, adhesives, cleaning agents, and metals associated with limited scrap metal storage would be present in storm water flows. Most of the activities and storage areas are located indoors or in covered outdoor areas. The presence of any pollutants in areas where contact with storm water could occur is limited to residual amounts.

3.1.3.3 Material Inventory

Material inventory information for Drainage Area 002 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.1.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 001 which were exposed to precipitation or drained to a storm water conveyance since January 2001. This is approximately six years prior to the date of the most recent inspections which were conducted in October 2007 and April 2008.

3.1.3.5 Non-Storm Water Discharges

One non-storm water discharge occurs within this drainage area. This discharge is uncontaminated groundwater intrusion and filtration. This discharge is more fully discussed in Section 2.11..

3.1.3.6 Storm Water Sampling Data

Outfall sampling data are presented in Table 3.1-1.

Table 3.1-1 Outfall 1: Storm Water Analyses and Field Data

Sample Date	Sampling Parameter												
	Precipitation Amount (inches)	**pH (standard units)**	**NH_3**	**NO_3 & NO_2**	**NO_3 & NO**	**TKN**	**COD**	**TSS**	**Oil & Grease**	**Chlorine**	**MBAS (Methylene Blue Active Substances)**	**1,1,1-TCA (µg/L)**	**TCE (µg/L)**
03/22/2000	0.29	7.31	0.7	2.1	-	1.8	28	7.6	ND	-	-	-	-
06/17/2000	0.9	7.70	0.53	4.17	-	1.6	42	<5	<1	-	-	-	-
07/12/2000	0.12	7.06	0.51	1.7	-	1.1	34	6	7	-	-	-	-
10/28/2000	0.55	7.8	<0.1	4.2	-	1.3	24	<5	<1	-	-	-	-
01/27/2001	0.23	7.4	<0.1	3.43	-	1.0	<4.0	44.0	<2	-	-	-	-
05/09/2001	-	-	9.8	-	0.66	12.5	40	8.0	ND	ND	1.42	ND	22
05/13/2001	0.38	7.64	0.1	2.52	-	1.9	<4.0	30	<2.0	-	-	-	-
02/04/2002	0.24	6.64	0.3	2.03	-	1.1	ND	92	ND	-	-	-	-
05/19/2002	-	8.1	-	-	-	-	-	-	-	-	-	-	-
07/16/2002	-	7.16	-	-	-	-	-	-	-	-	-	-	-

3.1.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs in this table that apply to Outfall 001 are listed by building in Appendix O.

3.1.3.8 Risk Identification and Summary of Pollution Sources

Sections 3.1.3.8.1 through 3.1.3.8.7 describe the major facilities and functional units within Drainage Area 001. These facilities and functional units perform industrial activities or maintain substantial quantities of materials to represent a significant source of pollutants to storm water.

3.1.3.8.1 Main Flight Line

The Main Flight Line is located south of Taxiway Alpha and contains numerous buildings and aircraft hangars. F-4 aircraft are typically parked outside along the Main Flight Line except during maintenance and hangar operations. Visiting aircraft from other Air Force, Navy, or Marine Corps units, as well as aircraft from other countries, may also be parked outside along the Main Flight Line. German Air Force (GAF) Tornado aircraft are parked, maintained, and fueled inside aircraft hangars.

Pollutants of concern are discussed in more detail in the sections below.

Loading/Unloading Operations

Loading and unloading of wastes and/or materials occurs at various facilities and buildings located along the flightline. Loading and unloading of oils and petroleum fuel products usually occurs outside the facilities with bowsers and fuel hoses. GAF aircraft are fueled inside hangars from permanent fueling stations. The chance of spilling fuel under these circumstances is minimal. Spills or leaks during loading or unloading of fuel bowsers and oil/hydraulic fluid carts or waste fuel unloading could result in the exposure of petroleum products to storm water. All spills are cleaned up in accordance with the HAFB SPCC Plan. Generally, containment pads are sloped toward sumps. All facilities institute BMPs such as keeping spill kits nearby loading/unloading areas and cleaning up minor spills when they happen. Fuels, fluids (used and new vehicle fluids from maintenance activities), and cleaning products could contact storm water if spilled during loading or unloading operations.

Outdoor Storage Activities

All aircraft (less the GAF Tornados), are parked outdoors along the Main Flight Line except during maintenance, cleaning, or flight operations. GAF Tornado aircraft are based and maintained in hangarettes. Aircraft fluid or fuel spills due to maintenance or leaks from aircraft could result in exposure of pollutants to storm water. However, all spills are immediately cleaned up in accordance with the HAFB SPCC Plan.

AGE is kept at various outside locations along the Main Flight Line and includes fuel bowsers, oil/hydraulic fluid carts, hydraulic mules, air conditioners, Dash-60 electrical/air power units, air compressors, portable lighting units, engine stands, ladders, tow bars, boat tails, trailers, jammers, petroleum product storage racks, pylons, and travel pods. Fuel bowsers, oil carts, and hydraulic fluid carts containing fluids are stored within concrete-paved and bermed containment pads when not in use. The remaining equipment is stored in open concrete-paved areas. The potential for AGE equipment to affect storm water quality is minimal.

Non-powered AGE, such as ladders, tow bars, trailers, pylons, and travel pods, are generally constructed of innocuous materials and are not considered significant contributors of pollutants to storm water runoff. Powered AGE, such as electrical/air power units and hydraulic mules, may leak fuel or hydraulic fluid which could come in contact with storm water.

Empty portable fuel bowsers and oil/hydraulic fluid carts that are kept in open-uncovered areas may leak or expose minor amounts of residual fluids to storm water.

Materials are stored in bulk quantities in Building 310 (Base Supply) and are distributed throughout the base. Once distributed, materials such as paints, lubricants, hydraulic fluid, solvents, detergents and other cleaners, and ethylene glycol (antifreeze) are stored within the facility or outside in designated storage areas. The potential for stored material to affect storm water quality is minimal.

Unfinished metal sheets and piping are stored outside at Building 281 (Sheet Metal Shop). The potential for these metal products to affect storm water quality is minimal.

On-Site Waste Disposal, Treatment, or Storage Practices

Wastes generated as a result of flight line operations include used fuel, hydraulic fluid, and antifreeze; oil and other petroleum product-soaked rags; spill pillows; and solvent sludge waste. The solvent sludge waste is generated by self-contained solvent recycling machines and is collected by a government contractor under the direction of 49 CES Environmental Flight. The remaining wastes are temporarily accumulated both inside and outside buildings and hangars along the Main Flight Line. Wastes are accumulated in 55-gallon drums prior to transfer by the DRMO for recycling or off-site disposal. Small quantities of hazardous materials stored inside are kept in metal storage lockers (flammable material lockers).

Fueling Stations and Fueling Activities

Main Flight Line aircraft are fueled/de-fueled on the flight line apron using tanker trucks and/or portable bowsers. GAF Hangarettes are equipped with indoor fuel dispensing equipment fed from pipelines within concrete trenched containment.

De-fueling of aircraft occurs adjacent to Building 301. De-fueling of aircraft can be accomplished anywhere along the main flight line if aircraft do not have to be de-paneled and there is a grounding point available.

Spills or leaks during aircraft fueling/de-fueling, loading/unloading of fuel bowsers and oil/hydraulic fluid carts processing could expose petroleum products to storm water. In this area, exposure of petroleum products to storm water is minimized by the use of spill carts.

Vehicle/Aircraft/Equipment Maintenance and Cleaning

Major aircraft maintenance, including mechanical overhauls and stripping/painting operations, is performed in hangars or designated facilities. Associated pollutants of concern are diesel, gasoline, hydraulic oil, ultra sonic fluid, cleaners/degreasers, and paints. Since these operations are performed indoors, there is an extremely small chance for a negative storm water impact.

Various aircraft maintenance support facilities are located along the Main Flight Line. Mer racks, equipped with secondary containment pans, are used inside some buildings for the dispensing of petroleum products used in maintenance activities. This equipment has minimal potential to affect storm water quality.

Aircraft are washed at a washrack adjacent to Building 304. The washrack is equipped with an OWS that discharges to the sanitary sewer system. This washrack has minimal potential to affect storm water quality.

AGE is cleaned on a washrack inside Building 309, and GAF AGE is maintained in Building 314. Wastewater from the washrack is routed through an OWS to the sanitary sewer. AGE is fueled at the Main Flight Line AGE station and east of Building 572. This washrack has minimal potential to affect storm water quality.

The Main Crash/Fire/Rescue Station (Building 525) is equipped with four catch basins (that contain sand traps and lead to the sanitary sewer) where firefighting equipment is washed. Vehicles can also be taken to the washrack at Fire Station Number 2 (Building 869 in Drainage Area 004) for washing. The main bays to the fire station also contain a continuous trench basin that leads to a sand trap followed by the sanitary sewer. The potential for these washing activities to affect storm water quality is minimal.

Pollutants of concern associated with vehicle and equipment washing include detergents, residual fuels, and vehicle fluids that might be present on the equipment. Since these operations are performed at a washrack, there is an extremely small chance for a negative storm water impact.

Liquid Storage Tanks

Jet fuel is normally routed from bulk storage ASTs located at the POL within Drainage Area 003 through an underground pipeline to four 25,000-gallon capacity ASTs located near Building 288 in Drainage Area 001. The 25,000-gallon capacity ASTs are located within a concrete-paved and bermed area and are part of the base hydrant system. Fuel from these ASTs is piped to hangarettes, where refueling takes place. Fuel bowsers of varying sizes are used throughout the Main Flight Line area to de-puddle aircraft (remove the last part of the fuel from the tank).

All fueling activities could expose storm water to fuels and petroleum hydrocarbons if a spill or leak should occur.

3.1.3.8.2 Auto Craft Shop

The Auto Craft Shop (located in Building 231) between Delaware and Connecticut Avenues, is used to perform maintenance and washing of personally-owned vehicles. Maintenance activities are confined to indoor bays.

Outdoor Storage Activities

Vehicles are parked and may be temporarily stored in outdoor parking areas. Vehicles may leak fluids, oil, or fuels that could contact storm water. Used vehicle parts and maintenance-related equipment are stored in a concrete-paved, covered area located adjacent to Building 231. The storage area is fairly level with little potential for run-on/run-off of storm water. Therefore, the potential for these activities to adversely affect storm water quality is minimal.

Materials stored in Building 231 for resale include lubricants, hydraulic brake fluid, cleaners, spray paint, and ethylene glycol (antifreeze). These materials are stored within a secure, indoor area. Therefore, the potential for these activities to adversely affect storm water quality is minimal.

On-Site Waste Disposal, Treatment, or Storage Practices

Wastes generated from maintenance activities include used oil, hydraulic fluid, and antifreeze; oil-soaked and other petroleum product-soaked rags; and paint-related waste. Waste is temporarily accumulated outside the building in 55-gallon drums placed within a concrete-paved and bermed storage area with a sheet-metal roof. A 600-gallon AST located within the storage area is also utilized to accumulate used oil for off-site recycling. Used oil is manually transported from the vehicle maintenance bays to the outside waste accumulation area for temporary storage in the 600-gallon AST or 55-gallon drums. This activity could result in spills that could expose pollutants to storm water.

Vehicle/ Maintenance and Cleaning

All vehicle maintenance and painting activities take place at the in-door maintenance bays and paint booths. Vehicles are washed on a concrete-paved and bermed washrack located adjacent to the building. The washrack floor is sloped to allow wash water to drain to a sand trap to an OWS that discharges to the sanitary sewer. Therefore, the potential for these activities to adversely affect storm water quality is minimal.

Liquid Storage Tanks

A 528-gallon double-walled AST located within the covered, outdoor storage area is utilized to accumulate used oil for off-site recycling. The potential for these activities to adversely affect storm water quality is minimal.

3.1.3.8.3 Test Cell Shop

The Test Cell Shop (Building 639) is located just north of the main taxiway (A). The Test Cell Shop is an enclosed facility used to test T-38 and J-85 jet engines mounted on test stands. Fuel (JP-8) for use during engine tests is stored adjacent to Building 639 in a 5000-gallon AST equipped with secondary containment (concrete dike). Fuel is piped directly from the AST to the engine test stand for use.

Loading/Unloading Operations

Unloading of fuel during delivery to the AST could result in spills that may expose petroleum products to storm water. All fueling of T-38s is accomplished in accordance with TO IT-38A-2-SCL-1 (Organizational Maintenance, Refueling/Defueling Procedures, USAF Series). All spills are handled in accordance with the HAFB SPCC Plan; therefore, there is only a small chance for a negative storm water impact.

Liquid Storage Tanks

A 5,000-gallon AST is located within a secondary containment structure adjacent to Building 639. Fuel is piped directly from the AST into the building where fueling of engines is conducted. Spills or leaks of fuel during refilling of the AST have the potential to contact storm water. In the event of an ongoing leak or catastrophic failure of the AST, a secondary containment structure captures released fuel and impacted storm water.

3.1.3.8.4 Aero Club

The Aero Club is located adjacent to Buildings 282 and 283 and is used by base individuals that fly personal aircraft. Aviation fuel (AVGAS) is dispensed from a 3000-gallon double-walled AST located adjacent to the facility.

Loading/Unloading/Fueling Operations

Unloading of fuel during delivery to the AST, as well as fueling of aircraft, could result in spills that may expose fuel to storm water.

Liquid Storage Tanks

A 3,000-gallon double-walled AST is located within a secondary containment structure adjacent to the Aero Club (Building 283). Spills or leaks of fuel during refilling of the AST have the potential to contact storm water. In the event of an on-going leak or catastrophic failure of the AST, a secondary containment structure captures released fuel and impacted storm water.

3.1.3.8.5 Fuel Systems Maintenance Shop

The Fuel Systems Maintenance Shop is located in Building 315. The facility performs aircraft fuel tank, fuel cell, and fuel bladder inspection and repair. Limited indoor storage of adhesives and solvents is present at the facility. Also, two fuel bowsers (150-200 gallon capacity) that contain small amounts of residual JP-8 are stored inside the facility. Pollutants are summarized in Table 3.1-6 and discussed in more detail in the sections below. Drains in this facility have been capped, and spill kits are present. All spills are cleaned up in accordance with the HAFB SPCC Plan

Loading/Unloading Operations

Unloading of fuel during delivery to the on-site fuel bowser could result in spills that may expose fuel to storm water. Limited unloading of small amounts of cleaners, adhesives, and degreasers into indoor storage areas could impact storm water. All fueling of T-38s is accomplished in accordance with TO IT-38A-2-SCL-1 (Organizational Maintenance, Refueling/Defueling Procedures, USAF Series).

Fueling Stations

During aircraft de-fueling to a bowser, there is a potential for spills or leaks of fuel to contact storm water.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

Maintenance activities take place inside Building 315. There is limited potential for small amounts of adhesives, cleaners, degreasers and soiled rags stored and used indoors to contact storm water.

Liquid Storage Tanks

Two fuel bowsers (150-200 gallon capacity), which contain small amounts of residual JP-8, are stored inside the facility. Spills or leaks of fuel during de-fueling have the potential to contact storm water. Additionally, an ongoing leak from the bowser AST would release fuel that may come in contact with storm water. All fueling of T-38s is accomplished in accordance with TO IT-38A-2-SCL-1 (Organizational Maintenance, Refueling/Defueling Procedures, USAF Series). All spills are handled in accordance with the HAFB SPCC Plan. There is an extremely small chance for a negative storm water impact.

3.1.3.8.6 AGE Refueling Station

The AGE Refueling Station for equipment is located west of Building 571. The station dispenses unleaded gasoline, diesel fuel, and JP-8 jet fuel from three double-walled ASTs located on-site.

Loading/Unloading Operations

Unloading of fuel during delivery to the on-site tanks could result in spills that may expose fuel to storm water.

Fueling Stations

There is low potential for spills or leaks of fuel to contact storm water during equipment fueling.

Liquid Storage Tanks

A 1,600-gallon unleaded gasoline AST, 1,600-gallon diesel fuel AST, and 3,000-gallon JP-8 AST are located at the AGE Refueling Station. All ASTs are double walled, constructed of steel, and located within a concrete-bermed secondary containment area. Spills or leaks of fuel during refilling of the tanks or during fueling of equipment have the potential to contact storm water. Additionally, an on-going leak from the tanks could expose fuel to storm water.

3.1.3.8.7 Other Drainage Area 001 Facilities

Other buildings and facilities within Drainage Area 001 that handle materials with the potential to impact storm water or have industrial activities that fall within the MSGP-2008 criteria include Vehicle Operations (Building 196), Machine Shop (Building 280), and Base Supply (Building 310). These facilities handle or use materials that have the potential to impact storm water; however, all material storage and usage are primarily confined to indoor activities. Vehicle Operations and Machine Shop maintain limited quantities of paints, solvents, oils, and metal scraps inside the facilities in appropriate storage lockers or drums on secondary containment pallets. Base Supply maintains a large and variable amount of products including paints, solvents, lubricants, hydraulic fluids, solvents, detergents, cleaners, and vehicle fluids. All materials are stored indoors. Base Supply distributes the items to other base organizations on an as-needed basis.

For each of these facilities, there is a potential for materials to be slipped or leaked during loading or unloading into the indoor storage areas. However, prompt cleanup of any minor spills or leaks reduces the likelihood of storm water contact with these products. Therefore, the materials maintained in these facilities are not considered a substantial risk to storm water quality.

3.1.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.1.4.1 Site Inspection and Maintenance Procedures

The drainage area will be monitored by quarterly outfall inspections. Areas that must be inspected at facilities within Drainage Area 001 include the following:

- Perimeter of the entire specific facility (for erosion and drainage)
- Liquid storage tank areas (including fuel storage)

- Fueling stations
- Fueling operations areas
- Outdoor equipment storage or maintenance areas
- Outdoor hazardous materials storage units and areas
- Flight line areas
- Washrack areas
- Any temporary construction areas

Specific inspection locations for the various primary facilities within Drainage Area 001 are discussed in Sections 3.1.4.1.1 through 3.1.4.1.6. Inspection checklists for the different drainage area facilities are included in Appendix D.

3.1.4.1.1 Main Flight Line Inspection Procedures

All portions of the Main Flight Line area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Flightline area (for erosion and drainage)
- Outdoor aircraft parking and maintenance areas (for spills and leaks)
- Outdoor AGE storage areas (for spills and leaks)
- Liquid storage tank areas (including fuel storage)
    - ASTs adjacent to Building 288
    - Transfer Tanks Adjacent to Building 309
    - Fuel bowsers throughout area
- Fueling and defueling stations
- Outdoor hazardous materials storage units or accumulation areas

- Washrack area (Building 306)

3.1.4.1.2 Auto Craft Shop Inspection Procedures

All areas of the Auto Craft Shop should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Outdoor areas immediately outside indoor maintenance bays (for spills and leaks)
- Waste oil storage AST
- Outdoor waste vehicle fluids and materials accumulation area

3.1.4.1.3 Test Cell Shop Inspection Procedures

All portions of the Test Cell Shop area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor areas immediately outside indoor maintenance bays (for spills and leaks)
- Outdoor fuel storage AST
    - ASTs adjacent to Building 288
    - Transfer Tanks Adjacent to Building 309
    - Fuel bowsers throughout area
- Fueling and defueling stations
- Outdoor hazardous materials storage units or accumulation areas
- Washrack area (Building 306)

3.1.4.1.4 Aero Club Inspection Procedures

All portions of the Areo Club area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor aircraft parking and maintenance areas (for spills and leaks)
- Outdoor fuel storage AST
- Fueling stations

3.1.4.1.5 Fuel Hangar Inspection Procedures

All portions of the Fuel Hangar area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Areas immediately outside indoor maintenance bays (for spills and leaks)
- Fuel Bowser Storage Area

3.1.4.1.6 AGE Refueling Station Inspection Procedures

All portions of the AGE Refueling Station area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor fuel storage ASTs (tanks and area around tanks)
- Fueling stations (for spills, leaks, accumulated residual fuel)

3.1.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.1.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 001 are discussed in Section 4.

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3.2 Drainage Area 002

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 that are located within Drainage Area 002 include the Base Supply Storage Yard, Base Transportation, CE, DRMO, Entomology, GAF, and Ninety-Day Storage.

These various facilities are housed in and around Buildings 193, 194, 195, 198, 131, 149, 137, 140, 141, 142, 105, 33, 35, 45, 49, 50, 52, 54, 55, 56, 57, 58, 59, 71, 88, 89, 93, 111,112, 113, 115, 116, 117, 118, 374, 375, and 373.

3.2.1 Drainage Area Description

Drainage Area 002 is located on the southeastern side of HAFB and is approximately 113 acres (Figures 3-2a and 3-2b). The approximate center of Drainage Area 002 is at 32° 50' 34" latitude and 106°04' 25" longitude. Drainage Area 002 constitutes a large portion of the main developed portion of the base, including many base offices and support services.

3.2.2 Implementation Team for Outfall 002

The primary POCs for Drainage Area 002 are:

- POL Environmental Coordinator
- 49 CE Environmental Coordinator
- Entomology Shop Environmental Coordinator
- GAF Environmental Coordinator
- DRMO Environmental Coordinator
- 49 LRS/LGRVM Environmental Coordinator
- AAFES Environmental Coordinator

Figure 3-2a. Drainage Area 002

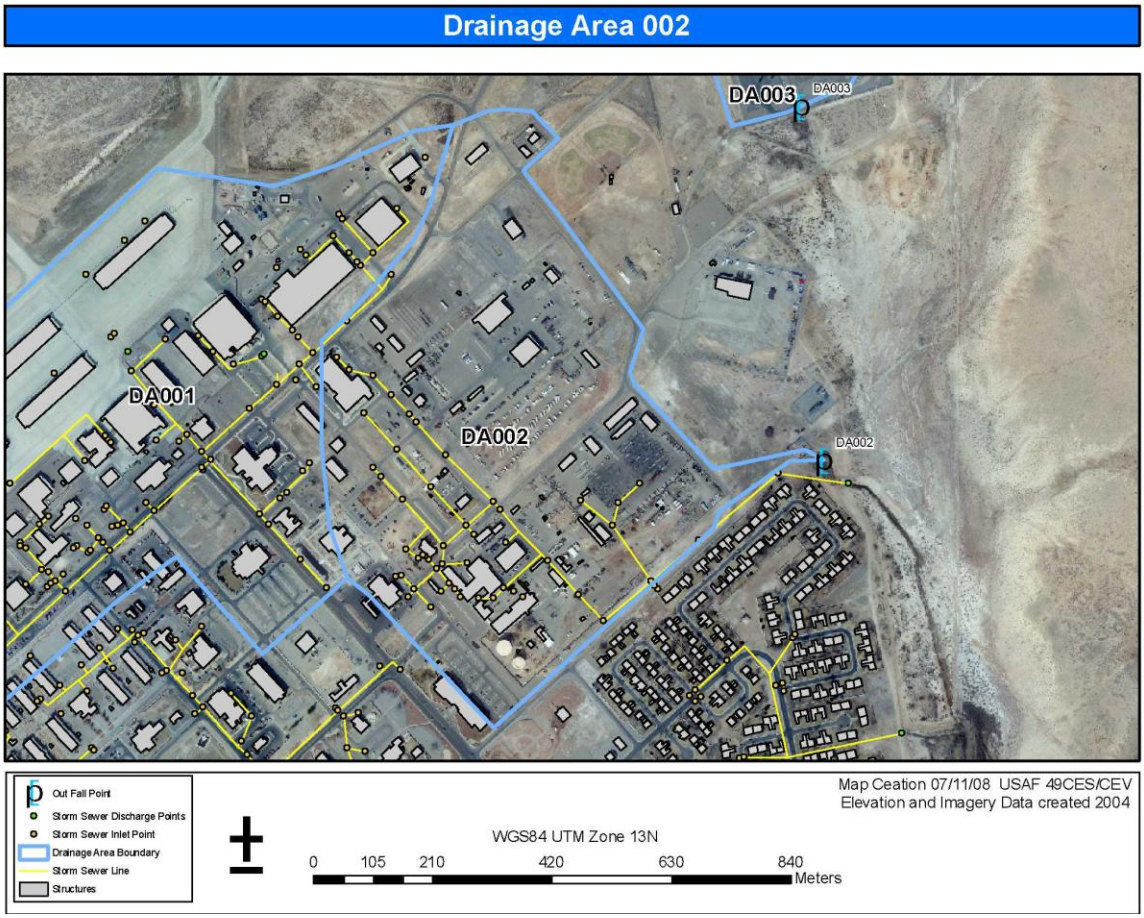
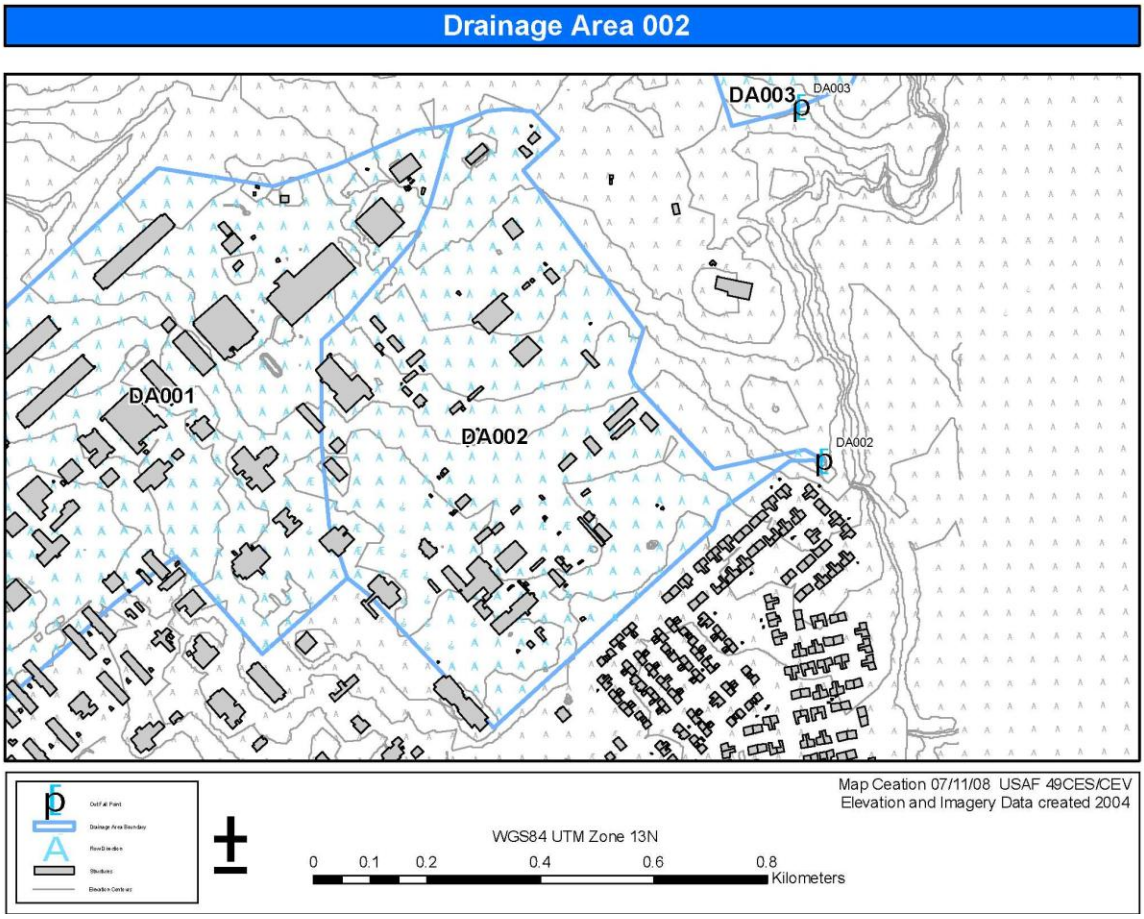


Figure 3-2b. Drainage Area 002



3.2.3 Description of Pollution Sources and Inventory of On-Site Chemicals

Compliance site inspections were conducted at Drainage Area 002 in October 2007 and April 008 to identify the pollution sources and inventory on-site chemicals. The results of these site assessments were used to prepare this drainage area SWPPP.

The main pollution sources at facilities located within Drainage Area 002 include vehicle fuels (diesel and unleaded gasoline), vehicle fluids (new and used oil, hydraulic and lubrication oils, and antifreeze), insecticides, herbicides, volatile organic compounds (VOCs) used as solvents and cleaning agents, paints, paint thinners and strippers, adhesives, AFFF, cleaning fluids and detergents, and suspended solids from minor debris and dirt parking lots and open areas. Large amounts of scrap metals and small quantities of hazardous materials are also stored in various facilities in this drainage area.

3.2.3.1 Facility Drainage

Drainage Area 002 represents a significant portion of the main base. Much of the area is paved streets or parking areas. Most open areas in and around Drainage Area 002 are minimally vegetated or xeriscaped with gravel and native plants to help reduce sheet flow runoff. Storm water runoff that flows from individual sites or buildings enters the roadways where it flows into storm drains. Sheet flow runoff generally flows southeast. There are approximately 41 storm drains in Drainage Area 002. Drainage Area 002 storm water discharges through the storm drain system to Dillard Draw.

3.2.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows from Drainage Area 002 are petroleum hydrocarbons associated with minor spills or vehicle fluids, insecticides, herbicides, volatile and semi-volatile organic compounds associated with painting materials, adhesives, cleaning agents, and some metals associated with DRMO and other scrap metal storage. Many activities and accumulation and storage areas in Drainage Area 002 are located indoors or in bermed or covered outdoor areas. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to residual amounts.

3.2.3.3 Material Inventory

Material inventory information for Drainage Area 002 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.2.3.4 Significant Spills and Leaks

No significant releases of toxic or hazardous pollutants at facilities in Drainage Area 002 which were exposed to precipitation or drained to a storm water conveyance have occurred since January 2001. This is roughly seven years prior to the date of the most recent inspection in October 2007.

3.2.3.5 Non-Storm Water Discharges

One non-storm water discharge occurs within this drainage area. This discharge occurring at Outfall #2 has been verified as uncontaminated groundwater intrusion and infiltration through salinity testing.

3.2.3.6 Storm Water Sampling Data

Outfall sampling data are presented in Table 3.2-1.

3.2.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 002 are listed by building in Appendix O.

3.2.3.8 Risk Identification and Summary of Pollution Sources

Sections 3.2.3.8.1 through 3.2.3.8.6 describe the major facilities and functional units within Drainage Area 002 which are subject to the MSGP-2008. These facilities and functional units perform industrial activities or maintain substantial quantities of materials to represent a significant potential source of pollutants to storm water. The nature of the activities and materials stored at these facilities and potential sources and types of pollutants of concern are discussed in the sections below.

3.2.3.7.1 Base Supply Storage Yard

The Base Supply Storage Yard is located northeast of Building 140, off Ocotillo Avenue between Delaware Avenue and Base Transportation (Buildings 193, 195, and 198, and a washrack located adjacent to Building 137). Base supplies not stored in Building 310 (Drainage Area 001) are kept in the Base Supply Storage Yard until distribution.

Table 3.2-1 Outfall 2: Storm Water Analyses and Field Data

Date	Precip. (inches)	pH s.u.	NH_3 (mg/L)	NO_3 (mg/L)	NO_3 & NO_2 (mg/L)	NO_3 & NO (mg/L)	TKN (mg/L)	COD (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)	Total CN (mg/L)	Al (mg/L)	As (mg/L)	Cd (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Hg (mg/L)	Se (mg/L)	Ag (mg/L)	Zn (mg/L)	Cyanide (mg/L)
05/07/1997			0.8		9.2		0.7	71.8	25	ND		ND	ND	ND	NT	ND	NT	NT	1240	ND	ND	ND	ND	ND
06/06/1997	0.48		<0.2		6.8	6.8	BIT	NT	BIT	<0.3	<0.005	0.188	0.014	0.0018			0.153	<0.02	844	<0.0002	NT	<0.01	<0.05	
08/20/1997	0.15		<0.3		2.6	2.6	0.84	320	110	<5.0	<0.2	2.7	<0.01	<0.001		<0.025	nt	0.0083	850	<0.001	<0.2	<0.02	<0.02	<0.020
09/22/1997	0.18		<0.3		2.3	2.3	0.87	160	23	<5.0	<0.04	NT	NT	NT			NT	5.7	NT	NT	NT	NT	NT	<0.04
12/07/1997	0.15		0.05		6.4	6.4	1.7	20	9	<5	<0.005	2.1	<0.025	<0.002		0.0091		<0.0042	330	<0.002	<0.025	<0.003	0.058	<0.005
10/20/1998	0.38	6.98		1910	431			60				0.2							188					
10/26/1998	0.19	7.3		2075	468			10				2.04							18.0					
10/31/1998	0.39	7.15		1930	436			16				0.36							126					
12/02/1998	0.38	7.59		1710	386			14				1.01							52.3					
03/17/1999	0.26	7.68		1.2	1.2			25				1.6							31.6					
06/29/1999		6.21																						
07/17/1999	0.11	6.72		0.89	0.89			32				0.289							26.8					
08/05/1999	0.27	7.17		676	676			13				1.43							9.00					
09/02/1999	2.48	7.19		5.01	5.01			20				0.81							0.042					
09/13/1999	0.38			4.74	4.74			50				1.31							612					
06/17/2000	0.9	7.36	0.74		12.2		0.9	30	ND	ND		ND	ND	ND		0.005	0.059	0.004	58.7	ND	0.006	ND	0.034	ND
07/12/2000	0.12	6.98	0.41		3.3		0.8	36	13	5		0.197	<0.004	0.004		0.010	0.202	0.007	1110	0.0004	0.005	<0.005	<0.002	0.01
10/28/2000	0.66	7.31	0.4		0.1		0.9	27	6	<1		0.029	0.008	<0.003		0.016	0.128	0.01	424	0.0004	0.012	0.018	0.022	<0.01
01/27/2001	0.29	7.1	<.10		1.57		<0.5	<4.0	68	<2		<0.03	0.006	0.008		0.092	0.242	0.006	1440	<0.0004	0.012	0.008	0.022	<0.01
05/13/2001	0.46	7.05	0.1		0.78		0.9	<4.0	<5.0	<2.0		<0.030	0.01	0.005	0.148		0.423	0.004	1740	<0.0004	0.008	<0.005	0.176	<0.01
07/19/2001	0.12	6.87	0.1		1.4		1.1	55	11	<1.0		0.103	0.007	<0.003	<0.004		0.138	0.006	2.79	<0.004	0.009	<0.005	<0.010	<0.01
02/04/2002	0.24	6.79	ND		0.63		ND	ND	30	ND		0.052	ND	ND		ND	1.56	ND	0.887	ND	0.006	ND	0.011	0.02
05/19/2002	0.16	8.27	0.10			1.09		31	18			ND	ND	ND		ND		ND	1220	ND	ND	ND	0.022	0.02
07/22/2002	0.38	6.89	0.42		0.73			47	90			2.61	ND	ND		0.011		ND	728	ND	0.007	ND	0.029	ND
10/07/2002	0.15	7.4	0.96		ND			33	8.0			0.106	ND	ND		ND		ND	254	ND	0.015	ND	0.02	ND

Loading/Unloading Operations

The Base Supply Storage area has minimal potential for spills during storage activities. It is during loading and unloading of wastes and/or materials that potential is greatest for spills to impact storm water. Loading and unloading drums and containers usually occurs outside on paved areas within secondary containment areas. Containment pads are sloped toward sumps where they exist, and the facility institutes BMPs such as keeping spill kits nearby loading/unloading areas and cleaning minor spills when they happen.

Outdoor Storage Activities

Used and new oil is kept at various outside locations at Drainage Area 002 including the Base Supply Storage Yard. Materials and equipment stored outdoors at the Base Supply Storage Yard vary and may include the following items: drums of new oil, detergent, petroleum naphtha, air conditioner cleaner, potassium hydroxide, cleaning compounds, hydraulic fluid, grease, lube oil, freon, antifreeze, firefighting foam, paint thinner, paint remover, isopropyl alcohol, miscellaneous metal parts, cable, aircraft parts, fencing, lightalls, metal pipes, and transformers. Solid materials, parts, and small equipment are stored on pallets in areas open to the elements. Some drummed materials are stored on pallets or racks within concrete-bermed areas, while other materials are stored on pallets within a three-sided building without secondary containment. The potential for these activities to adversely affect storm water is minimal.

Liquid Storage Tanks

Liquids at the Base Supply Storage Yard are kept in 55-gallon drums and 1-gallon containers. Some drummed materials are stored on pallets or racks within concrete-bermed areas, while other materials are stored on pallets within a three-sided building without secondary containment. The potential for these activities to adversely affect storm water is minimal.

3.2.3.7.2 Base Transportation

Base Transportation facilities are located near the northeast portion of the Main Flight Line facilities. Base Transportation consists of three locations (Buildings 193, 195, and 198) where repair, maintenance, and fueling of base vehicles are performed. Also, a washrack is located adjacent to Building 137 where base vehicles are washed.

Base Transportation vehicle maintenance is conducted at Buildings 193 and 198. In addition, wrecked vehicles are brought to Building 198 to drain fluids prior to disposal or storage of the vehicles. Waste oil and used antifreeze are temporarily accumulated within these buildings in 55-gallon drums placed on secondary containment pallets. Used antifreeze is accumulated in buildings 193 and 198 in 55-gallon drums maintained over secondary containment. The drums are marked as non-regulated waste and turned over to DRMO when filled to the 95 percent full mark.

Vehicle maintenance activities including bodywork, painting, reupholstering and glass repairs are conducted at Building 195 (Allied Trades). Materials including paints and paint thinners are stored inside

in metal storage lockers and in a self-contained (i.e., walled and roofed) storage unit located adjacent to Building 195.

Loading/Unloading Operations

Vehicles are unloaded at the Base Transportation area for maintenance and loaded after repair or for disposal. New vehicle maintenance supplies are unloaded onto the site, and old materials are loaded for disposal. The potential for these activities to adversely affect storm water is minimal.

Outdoor Storage Activities

Vehicles are brought into the Base Transportation area for maintenance or if they have been wrecked. Wrecked vehicles stored on-site may have the potential to leak oil. Paints and thinners are stored in a shed outside Building 195. The potential for these activities to adversely affect storm water exists. However, this potential is minimized through the use of BMPs.

On-Site Waste Disposal, Treatment, or Storage Practices

Wastes from maintenance activities include used oil, used hydraulic fluid and antifreeze, oil-soaked and other petroleum product-soaked rags, and paint-related waste. Waste is temporarily accumulated outside the building in 55-gallon drums placed within a concrete-paved and bermed, sheet metal-roofed structure. A 528-gallon double-walled AST located within the storage area is also used to accumulate used oil for off-site recycling. Used oil is poured into drain receptacles, pumped into the double-lined used-oil storage system, and disposed of by a local contractor. The potential for these activities to adversely affect storm water is minimal.

Vehicle/Equipment Maintenance and Cleaning

All vehicle maintenance and painting activities take place in the indoor maintenance bays and paint booths. Vehicle washing/pressure cleaning is conducted inside buildings 193 and 198 over the building water drains which lead to OWSs. There is no outdoor cleaning of parts or vehicles. The potential for these activities to adversely affect storm water is minimal.

Liquid Storage Tanks

A 528-gallon double-walled AST located within the storage area is utilized to accumulate used oil for off-site recycling. Used oil is poured into drain receptacles, pumped into the double-lined used oil storage system, and pumped out by a local contractor. The potential for these activities to adversely affect storm water is minimal.

3.2.3.7.3 CE

CE facilities are located off Tabosa Avenue between Arkansas and Arizona Avenues. CE activities are based at seven buildings (Buildings 49, 54, 55, 56, 58, 59, and 93) and areas adjacent to some of these facilities. Activities conducted within these buildings include storage of miscellaneous equipment and materials (Building 49); HVAC, Electric Shop, Liquid Shop, Power Production, and Sign Shop (Building 54); sheet metal fabrication (Building 55); heavy equipment repair (Building 56); and water treatment operations, utilities, and maintenance of base facilities (Buildings 58, 59, and 93). The CE vehicle washrack is located near Building 54.

Various CE support equipment is stored adjacent to several CE buildings. Equipment kept outside includes equipment for field exercises or other deployment actions, equipment and appliances awaiting disposal or other disposition, gardening equipment, and maintenance vehicles. Equipment and materials intended for field exercises are stored under an open-sided, roofed-area located east of Building 58. Small gardening equipment is stored under a canopy. Maintenance vehicles and large lawn mowers are stored in an uncovered area. Heavy construction and industrial equipment, such as bull dozers, are stored outside in the CE yard.

Small amounts of hazardous materials are stored throughout the CE compound in metal lockers, which are located both indoors and outdoors. Typical hazardous materials stored include acid, bases, anti-freeze, adhesives, diesel, oil, paint, and detergent. Drums of oils, cleaners, and wax are kept on a metal dispensing rack inside Building 56 for vehicle maintenance activities. A 528-gallon capacity double-walled AST is used to store diesel fuel adjacent to Building 49. Miscellaneous building supplies such as metal pipe, polyvinyl chloride (PVC) pipe, and wood are kept outside in uncovered areas.

Small quantities of recyclable wastes are accumulated in areas east and south of Building 54. Used hydraulic oil and motor oil are accumulated separately in 385-gallon plastic, double-walled USTs. A third 385-gallon plastic, double-walled UST is used for other fluids. Used motor oil and antifreeze are accumulated in 55-gallon drums on secondary containment pallets located within an uncovered, concrete-paved spill containment pad.

The CE washrack, located near Building 54, is used to wash CE vehicles and heavy construction equipment. The washrack consists of an uncovered, concrete pad which is sloped to a drain located at the center of the pad. Wash water flows through an OWS to the sanitary sewer system. A cable is locked in place across the entrance to the washrack to prevent unauthorized use. A key has to be signed out to release the cable lock and allow access to the pad. After the key is returned, the washrack is inspected and, if necessary, cleaned. Loading and unloading of wastes and/or materials at CE facilities could result in spills that may expose pollutants to storm water.

Loading/Unloading Operations

Unloading of fuel during delivery to the ASTs could result in spills that may expose petroleum hydrocarbon fuel to storm water. Unloading and loading of new and used cleaners and oils could result in spills that may expose oils or chemicals to storm water.

Outdoor Storage Activities

Building materials exposed to the elements have limited potential to reach storm water. Materials (stored in a shed) such as new PVC cement; wood sealers; storage lockers containing new acids and paint; drums of new oil, antifreeze, and AFFF; and building supplies have limited potential to reach the storm water.

On-Site Waste Disposal, Treatment or Storage Practices

There is limited potential for used hydraulic oil, motor oil, antifreeze, diesel, and other fluids that are stored in one 2000-gallon double-walled steel UST, three 385-gallon double walled plastic USTs, and one 500-gallon double-walled steel UST to reach storm water.

Vehicle/Equipment Maintenance and/or Cleaning Areas

A washrack is located in the CE yard to wash vehicles. This washrack is connected to an OWS that leads to the sanitary sewer. The potential for storm water contamination from this washrack is minimal.

Liquid Storage Tanks

Used hydraulic oil, motor oil, antifreeze, diesel and other fluids are stored in one 2000-gallon double-walled steel UST, three 385-gallon double-walled plastic USTs, and one 500-gallon double-walled steel UST. Residual fluids from loading operations have minimal potential of reaching storm water.

Erosion Potential

Due to the amount of unpaved surface in the CE lot, there is some erosion potential.

3.2.3.7.4 Ninety-Day Storage

Ninety-Day Storage is housed at Building 149. This facility stores hazardous waste and materials awaiting shipment off-site for treatment or disposal. This structure consists of a concrete, sloped, and bermed pad that trucks can drive onto and unload materials. It is sheltered with a roof, and a chain link fence surrounds the area.

Loading/Unloading Operations

Unloading of chemicals or oils during delivery to the storage area could expose chemicals or oils to storm water. Since most unloading at Ninety-Day Storage is done inside the bermed area, potential for chemicals to reach storm water is limited.

Outdoor Storage Activities

All material at Ninety-Day Storage is stored outside on a covered, fenced, locked, bermed, and sloped concrete pad. The potential for these activities to adversely affect storm water is minimal.

On-Site Waste Storage Practices

Hazardous materials and waste are kept in segregated locations, on secondary containment, and under shelter. There is an extremely small potential for this material to reach storm water.

Liquid Storage Tanks

Used hydraulic oil, motor oil, antifreeze, diesel and other fluids are stored in one 528-gallon double-walled steel UST. Residual oils from loading operations have the potential of reaching storm water.

3.2.3.7.5 DRMO

The DRMO is located between Arkansas and Arizona Avenues and is bordered on the east side by Creosote Avenue and on the west side by CE. The DRMO consists of a chain-link fenced compound that includes six buildings and an asphalt-paved storage yard. Three of the buildings are used for administrative activities. The three remaining buildings (Buildings 113, 115, and 118) are used for the storage of equipment or temporary storage of hazardous waste and materials.

Miscellaneous equipment and vehicles designated for sale to the public are stored outdoors in the central portion of the DRMO storage yard. Scrap computer parts, metals, wire, wood, and tires designated for recycling are sorted and accumulated in uncovered, three-sided concrete storage cells located along the south and east perimeter of the DRMO compound.

Office equipment for sale to the public (including chairs, desks, and file cabinets) are stored inside of Building 113. Computer parts for sale are stored inside of Building 115.

Building 118 is a RCRA-permitted TSDF and has concrete floors with secondary containment. The facility temporarily stores hazardous materials no longer needed or used and hazardous wastes. DRMO arranges for the sale or off-site disposal of these materials. Materials stored may include insecticides, herbicides, coatings, vehicle batteries, or other hazardous materials. Wastes may include oils, grease, fuels, adhesives, antifreeze, and other waste generated by base activities.

A roofed, concrete-paved and bermed pad located adjacent to Building 118 serves as a central accumulation point for recyclable and hazardous wastes. Wastes accumulated include used oily-rags, oil,

and antifreeze contained in 55-gallon drums, and used vehicle batteries secured to wood pallets or placed on metal racks.

Loading and unloading of wastes and/or materials at the DRMO facilities could result in spills that may expose pollutants to storm water.

Loading/Unloading Operations

Any hazardous material used on base could be spilled during limited loading or unloading into the indoor storage areas. However, there is limited potential for contaminants to reach storm water.

Outdoor Storage Activities

Drums of oily rags, antifreeze, oil, and vehicle batteries are stored under a roofed, bermed area outside. Other scrap metal is stored in open asphalt-areas. The scrap metal is either on dunnage or in dumpsters. The materials handled at the facility present potential for contaminants to reach storm water. Appropriate management practices are required to limit storm water contact with stored materials and manage run-on and run-off to avoid transporting contaminants to area inlet storm drains.

On-Site Waste Storage Practices

Waste is stored indefinitely at DRMO until disposed of. The area is controlled, bermed, and sheltered. DRMO is a RCRA-permitted TSDF with concrete floors and secondary containment. There is limited potential for waste to reach storm water.

3.2.3.7.6 Other Drainage Area 002 Facilities

Other buildings and facilities within Drainage Area 002 that handle materials that could impact storm water or have industrial activities that fall within the MSGP-2008 criteria include Housing Maintenance (Building 93), Entomology (Building 374), and GAF facilities. These facilities handle or use materials that could impact storm water; however, all storage and material usage is confined to indoor activities. Housing Maintenance stores limited quantities of water-based paints within a storage shed and on appropriate secondary containment pallets. Entomology stores limited quantities of insecticides and herbicides in small bottles kept on racks inside the building. GAF activities associated with the GAF Base Exchange, administration, and storage activities are confined mostly to indoors.

For each of these facilities, there is a small potential for materials to be slipped or leaked during loading or unloading into the indoor storage areas of the facility. However, prompt cleanup of any minor spills or leaks reduces the likelihood of storm water contact with these products. Therefore, the materials maintained in these facilities are not considered a risk to storm water quality.

3.2.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.2.4.1 Site Inspection and Maintenance Procedures

The drainage area will be monitored by quarterly outfall inspections. Areas that must be inspected at facilities within Drainage Area 002 include the following:

- Perimeter of the entire specific facility (for erosion and drainage)
- Liquid storage tank areas (including fuel storage)
- Fueling stations
- Fueling operations area
- Outdoor equipment storage or maintenance areas
- Outdoor hazardous materials storage units and areas
- Flight line areas
- Washrack areas
- Any temporary construction areas

Specific inspection locations for primary facilities within Drainage Area 002 are discussed in Sections 3.2.4.1.1 through 3.2.4.1.6. Additionally, inspection checklists for the different facilities are included in Appendix D.

3.2.4.1.1 Base Supply Storage Yard Inspection Procedures

All portions of the Base Supply area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion and drainage or spilled or leaked material)
- Sheltered storage area (for erosion and drainage or spilled or leaked material)
- Outdoor vehicle parking and maintenance areas (for spills and leaks)

- Drum storage areas
- Outdoor hazardous materials storage units or accumulation areas

3.2.4.1.2 Base Transportation Inspection Procedures

All portions of Base Transportation (Buildings 137, 193, 195, and 198) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion and drainage or spilled or leaked material)
- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Outdoor areas immediately outside indoor maintenance bays (for spills and leaks)
- Drum storage areas (for corrosion or spills)
- Fueling and de-fueling stations (for spills and leaks)
- Waste oil bowser storage (for spills and leaks)
- Outdoor waste vehicle fluids and materials accumulation area

3.2.4.1.3 CE Inspection Procedures

All portions of Civil Engineering (Buildings 54, 55, 56, 58, 59 and 93) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Maintenance bays (for spills and leaks)
- Outdoor fuel storage ASTs (for spills and leaks)
- ASTs adjacent to Building 54 (for spills and leaks)
- Fuel bowsers throughout area (for spills and leaks)
- AGE parking area (for spills and leaks)

- Fueling and de-fueling stations (for spills and leaks)
- Outdoor hazardous materials storage units or accumulation areas (for spills and leaks)
- Washrack area (west of Building 56 and adjacent to Building 54)

3.2.4.1.4 Ninety-Day Storage Facility Inspection Procedures

All portions of the Ninety-Day Storage Facility area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Sheltered storage area (for erosion and drainage)
- Areas immediately outside indoor bay (for spills and leaks)
- Vehicle parking and maintenance areas (for spills and leaks)
- Drums (for corrosion and/or integrity)

3.2.4.1.5 DRMO Inspection Procedures

All portions of the DRMO area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion and drainage, and for spills and leaks)
- Sheltered storage area (for erosion and drainage, and for spills and leaks)
- Vehicle parking and maintenance areas (for spills and leaks)
- Drum storage areas (for spills and leaks)
- Outdoor hazardous materials storage units or accumulation areas (for spills and leaks)

3.2.4.1.6 GAF Inspection Procedures

All portions of the GAF area should inspected and observed for conditions that may negatively impact storm water. At a minimum, the following designated areas should be inspected:

- Outdoor storage area (for erosion and drainage, and for spills and leaks)
- Outdoor vehicle parking and maintenance areas (for spills and leaks, and for spills and leaks)

- Outdoor areas immediately outside indoor maintenance bays (for spills and leaks)
- Drum storage areas (for corrosion or spills)
- Outdoor hazardous materials storage units or accumulation areas

3.2.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.2.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 002 are discussed in Section 4.

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3.3 Drainage Area 003

This section was developed based on information compiled during site assessments and personnel interviews. POL is the only industrial facility located within Drainage Area 003 that is subject to the requirements of the MSGP-2006.

These facilities are housed in and around Buildings 701, 702, and 703.

3.3.1 Drainage Area Description

Drainage Area 003 is located on the southeastern side of HAFB and the estimated size is 18 acres. The approximate center of Drainage Area 003 is at 32° 50' 58" latitude and 106° 04' 14" longitude. Drainage Area 003 constitutes a large portion of Fuels Storage on base. See Figures 3-3a and 3-3b.

3.3.2 Implementation Team for Outfall 003

The POC for Drainage Area 003 is the POL Environmental Coordinator.

3.3.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at the facilities located within Drainage Area 003 include antifreeze, lube oil, simple green, heating oil, Citrikleen, oil, antifreeze, and fuel (diesel, unleaded, and JP-8).

To fulfill the requirements for the annual site inspection, HAFB conducted a compliance site inspection at Drainage Area 003 in October 2007 to identify pollution sources and inventory on-site chemicals. The results of that site assessment, along with the site compliance assessments of 2005 through 2006, were used to prepare this drainage area SWPPP.

3.3.3.1 Facility Drainage

Most open areas in and around Drainage Area 003 are paved or xeriscaped with gravel to help reduce sheet flow runoff and erosion. Storm water sheet flow runoff generally flows southeast. There are two storm drains in Drainage Area 003. Storm water within Drainage Area 003 discharges through culverts to Dillard Draw, one of which is monitored as Outfall 003.

Figure 3-3a. Drainage Area 003

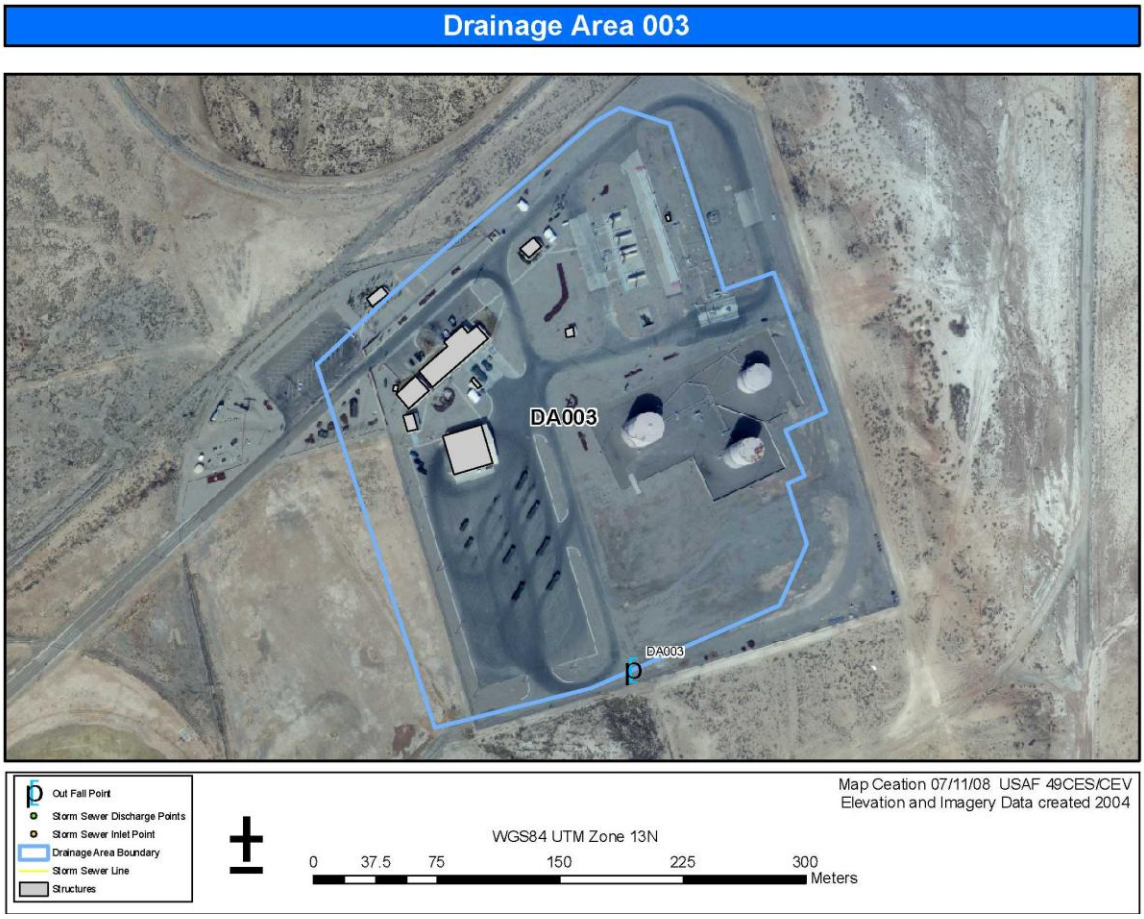
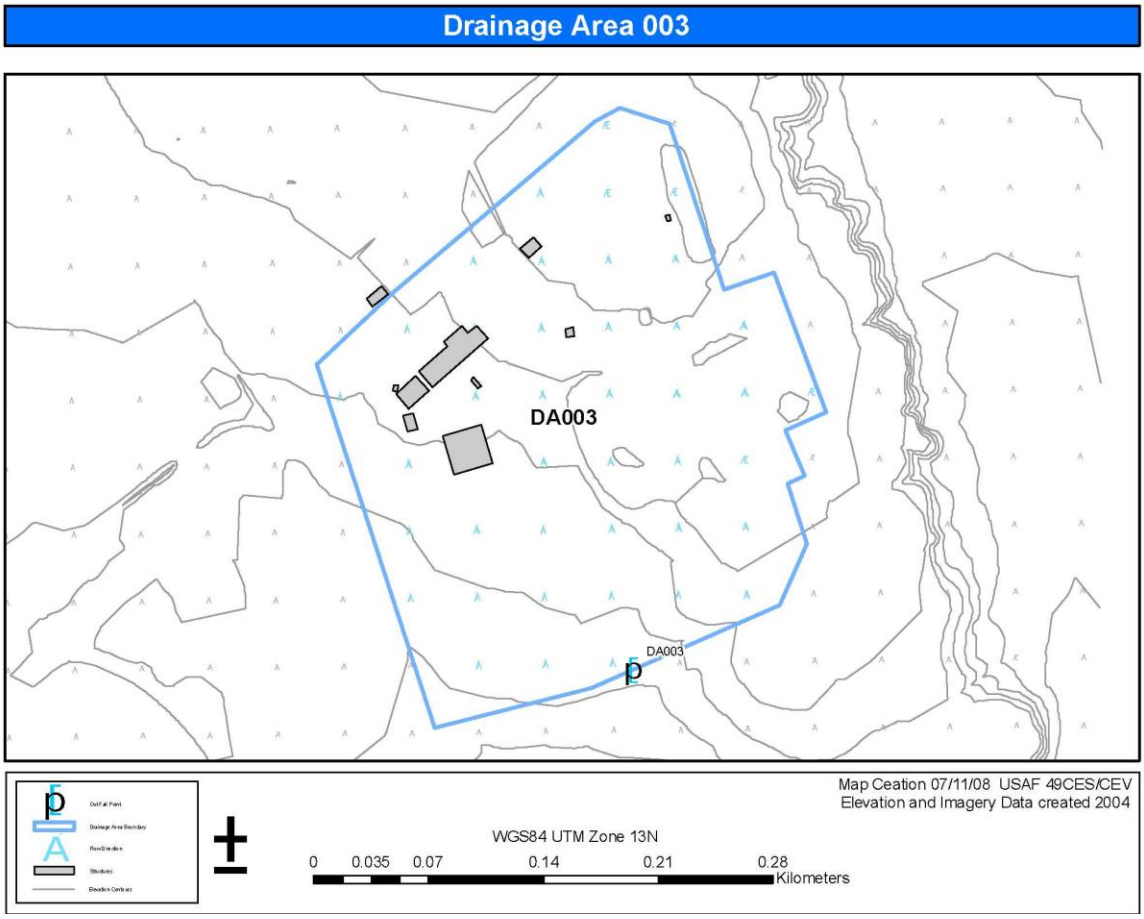


Figure 3-3b. Drainage Area 003



3.3.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 003 include petroleum hydrocarbons associated with fuels, vehicle fluids, and cleaning agents. Many activities and storage areas in Drainage Area 003 are located outdoors in bowsers, ASTs, and vehicles used to transport fuel. There is minimal potential that these outdoor storage activities could result in spills. The potential for spills is greatest during fueling and de-fueling operations.

3.3.3.3 Material Inventory

Material inventory information for Drainage Area 003 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.3.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 003 which were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This is roughly seven years prior to the date of the most recent inspection in October 2007.

3.3.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.3.3.6 Storm Water Sampling Data

Outfall sampling data are presented in Table 3.3-1.

3.3.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 003 are listed by building in Appendix O.

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Table 3.3-1 Outfall 3: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	NH_3 (mg/L)	NO_2 (mg/L)	NO_3 (mg/L)	Organic N (mg/L)	NO_3 & NO_2 (mg/L)	NO_3 & NO (mg/L)	TKN (mg/L)	COD (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)
09/22/1997	0.18		<0.3				8.1	8.1	1.3		30	<0.5
07/22/1998		7.79	12.3				42.4		9.4		42.8	ND
07/28/1998		7.09	0.5			1.5	29.8		2.0		31	ND
07/31/1998	0.1	6.79	0.4			ND	39.1		ND		17	ND
08/05/1998		7.32	0.2				14.3		0.7		18	ND
10/26/1998	0.19	7.5		ND	15.6		3.5					
10/31/1998	0.39	7.40		ND	3.1		0.7					
11/28/1998		7.28										
12/02/1998	0.38	7.4			15.8		15.8					
03/17/1999	0.26	7.48			19.9		19.9					
06/09/1999	0.49	6.37			27.3							
06/29/1999		6.37					27.3					
07/17/1999	0.11	6.97			39		39					
08/05/1999	0.27	6.92			853		853					
09/02/1999	2.48	6.87			11.8		11.8					
09/13/1999	0.38				23.8		23.8					
06/17/2000	0.9	6.97	1.17				52.9		3.7	88	112	ND

08/18/2000	0.77	7.6	0.5				1		2.5	35	270	<1
10/21/2000	0.5	7.9	0.2				23.8		1.6	60	78	<1.0
01/27/2001	0.21	7.4	<0.1				11.2		<0.5	11	116	<2.0
05/13/2001	0.2	6.78	0.6				106		6	140	90	<2.0
09/13/2001	1.75	7.9	0.2				49.3		3.3	68	77	<2
02/04/2002	0.25	6.55	0.2				23.2		1.4	ND	25	ND

3.3.3.8 Risk Identification and Summary of Pollution Sources

POL maintains substantial quantities of materials to represent a significant potential source of pollutants to storm water. The POL complex is located at the eastern-end of Delaware Avenue near the base boundary and provides bulk storage facilities for JP-8 jet fuel. The facilities are also used for storage, washing, and maintenance of tanker trucks.

Fuel is stored in three ASTs (with a combined capacity of 1,941,000 gallons) that are located within concrete-bermed areas. The berms are equipped with closed gate valves that can be used to drain areas of storm water as necessary. Fuel is supplied to these ASTs through an underground pipeline. Fuel is dispensed to tanker trucks at loading stands located at a concrete-paved, unbermed area adjacent to the AST storage area. Tanker trucks transport fuel to other areas of the base for fueling of aircraft and other operations. The truck-loading stands can also be used to fill the ASTs should service from the underground fuel supply line be interrupted. Secondary containment measures are implemented.

Fuel is also routed from the POL yard through an underground pipeline to four 50,000-gallon-capacity ASTs and two 25,000-gallon-capacity ASTs. The 50,000-gallon ASTs are located east of Building 871 in a concrete-paved and bermed area and supply fuel through an underground pipeline directly to fuel stands located within each F22 hangar. The 25,000-gallon-capacity ASTs are located within a concrete-paved and bermed area located near Building 288 and may be used in the future to supply fuel to a facility housing visiting aircraft operations.

POL vehicle maintenance activities are conducted inside Building 702. The floors of the facility are normally cleaned with dry methods or Tymco floor-washing machines, referred to as "Zambonis" by base personnel. The facility floor is equipped with drain inlets that route liquids through an OWS to the sanitary sewer. Small parts are cleaned in a self-contained, solvent-recycling cleaning tank. Waste sludge is removed from the cleaning tank and disposed of off-site by a contractor every twelve weeks (Safety Clean, Contract number FA 4801-08P-0060). Liquid materials (including lube, hydraulic oils, and antifreeze) are dispensed from a mer rack located within Building 702.

Fuels Management Flight vehicles are washed on a washrack located adjacent to Building 702. The washrack consists of a roofed facility open on four sides. The floor of the washrack is concrete-paved and sloped to a drain inlet that routes wastewater through an OWS to the sanitary sewer. An initial accumulation point for fuel-contaminated rags and a storage point for Citrikleen®, diesel fuel, and unused adsorbent material are located under the washrack roof adjacent to the vehicle-washing area. These materials are kept in metal containers on secondary containment. A small metal locker for storage of small quantities of flammable materials (i.e., spray paints and adhesives) is located adjacent to the initial accumulation point.

Several 6,000-gallon capacity tanker trucks are stored adjacent to Building 702 in a paved area without secondary containment. Spills or leaks from tanker trucks could expose JP-8 to storm water.

A 450-gallon capacity single-wall AST is located in an unbermed/unpaved area adjacent to Building 702. The AST is used to store diesel fuel for an emergency generator. A spill during filling operations or a leak in the AST could expose diesel fuel to storm water.

Loading/Unloading Operations

POL has minimal potential for spills during storage activities. The potential for spills that could impact storm water is greatest during loading and unloading of wastes and/or materials. Loading and unloading drums and containers usually occurs outside on paved areas or within secondary contained and bermed areas. Containment pads are sloped toward sumps where they exist, and the facility institutes BMPs such as keeping spill kits nearby loading/unloading areas and cleaning minor spills when they happen.

Outdoor Storage Activities

Drums containing used rags and Citrikleen are stored near the washrack adjacent to Building 702. ASTs containing diesel, unleaded gasoline, and JP-8 are stored near Buildings 298, 136, and 703, and in the tank storage area. Fuel trucks are parked at the fuel truck parking lot and at the refueling station. Potential exists for residual fuel to be washed off the trucks and ASTs during rain. Trucks are cleaned with absorbent pads and at the washrack if fuel spills have occurred. The pads are discarded as hazardous waste, and the OWS catches residual fuel that could not be wiped away with the pads.

Fueling Stations

POL vehicles are fueled in this area. During fuel transfers, there is a potential for spills. However, containment pads are sloped toward sumps where they exist, and the facility institutes BMPs such as keeping spill kits nearby loading/unloading areas and cleaning minor spills when they happen.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

Vehicles are maintained and serviced in Building 703. Most tasks are confined to indoor areas that have oil sumps installed in the floors. The outdoor washrack has an OWS to catch a residual fuel and detergent which flows to the sanitary sewer system. There is a small potential exists for fuel and detergent to reach storm water.

Liquid Storage Tanks

ASTs containing diesel, unleaded gasoline, and JP-8 are stored near Buildings 298, 136, and 703, and in the tank storage area. Fuel trucks are parked at the fuel truck parking lot and at the refueling station.

3.3.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.3.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. Areas that must be inspected within Drainage Area 003 include the following:

- Perimeter of the entire specific facility (for erosion and drainage)
- Liquid storage tank areas (including fuel storage)
- Fueling stations
- Fueling operations area
- Outdoor equipment storage or maintenance areas
- Outdoor hazardous materials storage units and areas
- Fuel truck storage areas
- Washrack areas
- Any temporary construction areas

Inspection checklists for drainage area facilities are included in Appendix D.

3.3.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.3.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 003 are discussed in Section 4.

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3.4 Drainage Area 004

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 located within Drainage Area 004 include Hazmart, Sound Suppressors, and F22 Squadron.

These facilities are housed in and around Buildings 806, 11648, 800, 816, 820, 828, 898, 866, 868, 883, 869, 871, 877, and 21810 thru 21819.

3.4.1 Drainage Area Description

Drainage Area 004 is located on the southern side of HAFB, and the estimated size is 303 acres (Figure 3-4a and 3-4b). The approximate center of Drainage Area 004 is at 32° 50' 33" latitude and 106° 06' 28" longitude. Drainage Area 004 constitutes a large portion of the main developed base, including many of the base offices and support services.

3.4.2 Implementation Team for Outfall 004

The 49 MXG Environmental Coordinator, Raptor Flight Line, is the primary POC for this area.

3.4.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources within Drainage Area 004 include fuels (JP8, AVGAS, diesel, and unleaded gasoline), vehicle fluids (new and used oil, hydraulic and lubrication oils, antifreeze), insecticides, herbicides, VOCs used as solvents and cleaning agents, paints, paint thinners and strippers, adhesives, AFFF, and cleaning fluids and detergents. Additionally, lesser amounts of scrap metals and hazardous materials are stored in various facilities in this drainage area.

Compliance site inspections were conducted at Drainage Area 004 in October 2007 and April 2008 to identify pollution sources and inventory on-site chemicals. The results of these site assessments were used to prepare this drainage area SWPPP.

3.4.3.1 Facility Drainage

Drainage Area 004 represents a significant portion of the main developed base. Much of the area is paved as streets or parking areas. Most open areas in and around Drainage Area 004 are naturally vegetated or xeriscaped with gravel and native plants to help reduce sheet flow runoff. Storm water runoff that flows from individual sites or buildings enters the roadways where it flows into storm drains and into the storm sewer system. Sheet flow runoff generally flows south. There are approximately 4 storm drains in Drainage Area 004. Effluent from storm water discharges through a culvert at Outfall 004 to a jurisdictional wetland area. Storm water which drains from the southern portion of the runways (which does not contain industrial activities as defined by the MSGP) also discharges through this culvert.

Figure 3-4a. Drainage Area 004

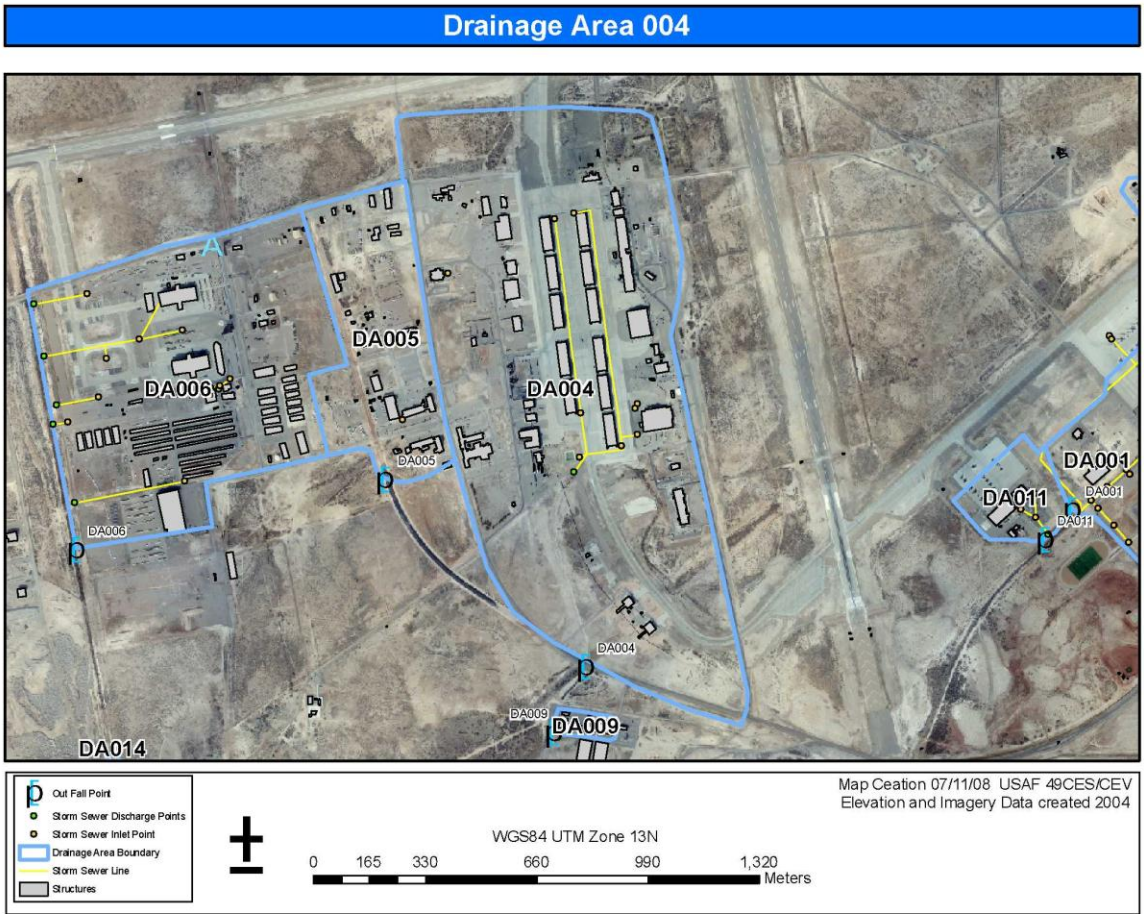
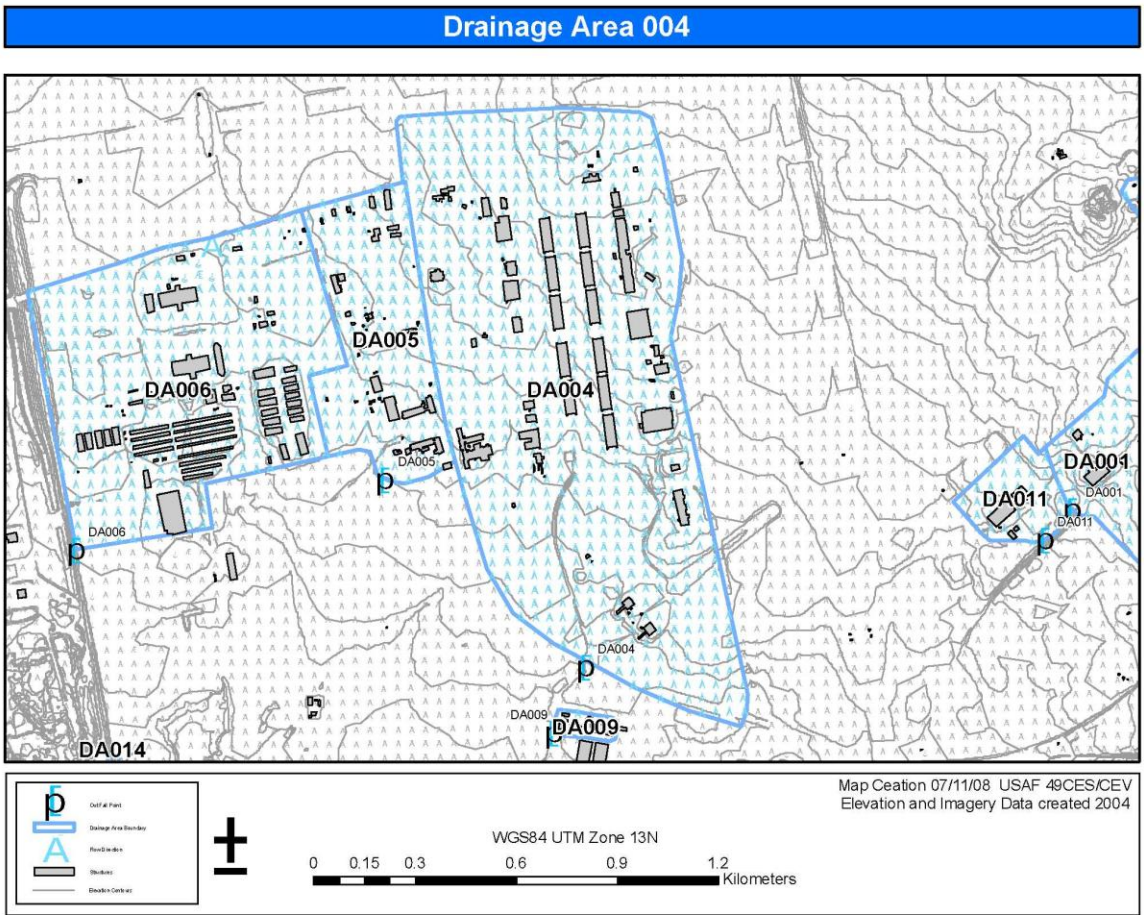


Figure 3-4b. Drainage Area 004



3.4.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows include petroleum hydrocarbons associated with fuels or vehicle and airplane fluids; AFFF; volatile and semi-volatile organic compounds associated with painting materials, adhesives, and cleaning agents; and metals associated with limited scrap metal storage. Many activities and accumulation and storage areas in Drainage Area 004 are located indoors or in covered outdoor areas. Therefore, the exposure of pollutants to storm water would be limited to small amounts.

3.4.3.3 Material Inventory

Material inventory information for Drainage Area 004 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers. .

3.4.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 004 which were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly six years prior to the date of the most recent inspection in October, 2007.

3.4.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.4.3.6 Storm Water Sampling Data

Outfall sampling data are presented in Table 3.4-1.

3.4.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs in this table that apply to Outfall 004 are listed by building in Appendix O.

3.4.3.8 Risk Identification and Summary of Pollution Sources

Sections 3.4.3.8.1 through 3.4.3.8.3 describe the major facilities and functional units within Drainage Area 004 that are subject to the MSGP-2008. These facilities and functional units perform industrial activities or maintain substantial quantities of materials to represent a significant source of pollutants to storm water.

Table 3.4-1 Outfall 4: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	NH_3 (mg/L)	NO_3 & NO_2 (mg/L)	NO_3 & NO (mg/L)	TKN (mg/L)	COD (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)	As (mg/L)	Cd (mg/L)	Pb (mg/L)	Mg (mg/L)	Hg (mg/L)	Se (mg/L)	Ag (mg/L)	Zn (mg/L)	Cyanide (mg/L)
06/06/1997	0.48						113	154	0.62									
09/22/1997	0.18						54	27	<5.0									
10/22/1997	0.22						36	<20	<5.0									
12/07/1997	0.15						24	3	<5									
07/17/1999		7.10																
08/05/1999		7.36																
09/02/1999		7.32																
03/22/2000	0.29	7.38	0.7	1.1		1.6	27	13	<1	0.007	<0.003	0.004	94.1	<0.0004	<0.004	<0.005	0.003	0.02
06/17/2000	0.9	7.26	1.01	1.3	1.3	4.4	88	24	ND	ND								0.01
07/12/2000	0.12	7.2	0.25	0.71		0.8	40	26	9									
10/28/2000	0.55	7.5	<0.1	0.5		0.5	17	<5	<1									
01/27/2001	0.26	7.6	0.1	1.09		0.5	27	26	<2.0									
05/13/2001	0.37	7.42	0.3	0.49		6.1	140	40	<2.0									
07/22/2001		7.14	0.4	1.73		2.9	36	48	<1.0									
02/04/2002	0.25	6.87	ND	0.31		ND	5.0	ND	ND									
10/13/2002	0.12	8.6																

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3.4.3.8.1 Hazmart

The Hazmart Pharmacy, Building 806, is located on the northeast corner of Trinity and Wagner Streets. Building 806 is used as a central storage area for new hazardous materials prior to distribution throughout the base. Bulk materials are stored in 55-gallon drums on secondary containment pallets. Small metal lockers are used to store small quantities of flammable materials, such as spray paint, solvent, and adhesives.

Ten Connex® walk-in lockers are located adjacent to Building 806 for storage of temperature-sensitive chemicals. The storage lockers are equipped with secondary or tertiary containment and air conditioning for climate control.

Loading/Unloading Operations

Various hazardous materials are stored at Hazmart and distributed throughout the base. Since materials are loaded and unloaded in Connex® sheds or inside the building, there is minimal potential for hazardous materials to reach storm water.

Outdoor Storage Activities

Various hazardous materials are stored outdoors in Connex® sheds. These sheds have secondary and/or tertiary containment, so there is minimal potential for hazardous materials to reach storm water. The sheds are also equipped with air conditioning; the potential for expansion and overflow of drums is minimized.

On-site Waste Disposal, Treatment, or Storage Practices

Hazmart is a RCRA-permitted hazardous waste storage facility. Various types of waste are stored at Hazmart. Since all materials are stored in Connex® sheds or inside the building, there is minimal potential for hazardous materials to reach storm water.

3.4.3.8.2 Sound Suppressors

The Sound Suppressors (Buildings 11648 and 11649), also known as Hush Houses, are located between Taxiway H and Forty-Niner Avenue, south of the F22 hangars. The facilities are used to test aircraft engines. The buildings are designed to limit sound emitted from the buildings during engine run tests. Each building is equipped with floor drains that are connected to an OWS that discharges to the sanitary sewer. Each building is also equipped with a fire suppression system that is designed to spray the interior of the facility with Halon 1301 in the event of a fire.

Materials used at the Hush Houses include lube oil, hydraulic oil, cleaners, grease, paint, and JP-8. Small amounts of lubricants are stored within flammable lockers located inside each building. JP-8 is supplied

to each test facility through a pipeline connected to one of two 2,500-gallon-capacity ASTs located adjacent to each building. The ASTs are located within secondary containment berms. JP-8 is also available from a 2,500-gallon-capacity fuel trailer located adjacent to the buildings.

In the event of a spill, the spilled material would be cleaned up with absorbent material. Any used absorbent material or waste fuel is temporarily accumulated within the facility in 55-gallon drums placed on secondary containment pallets. Used oil is stored outside in a 500-gallon AST located near the north end of the Hush Houses.

Loading/Unloading Operations

Loading/unloading of fuel at the ASTs could result in spills that may expose fuel to storm water. Spill kits are used to clean soiled surfaces. Loading and unloading is done in concrete-bermed and contained areas. The potential for spills also exists inside the Hush Houses where unloading of jet engines, JP-8, oils, and degreasers occurs.

Outdoor Storage Activities

The exposure of residual fuel on the surface of containers stored outside to storm water is limited. JP-8 is stored outside in one 2,500-gallon fuel trailer and two 2,500-gallon ASTs. If spills occur, they are absorbed with pads, and surfaces are cleaned with degreasers.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

The exposure of engine fluids, fuel, cleaners, and degreasers from maintenance activities to storm water is limited, since most activities are performed indoors.

Liquid Storage Tanks

There are three liquid storage containers located outside the Sound Suppressor facilities (two ASTs plus a fuel trailer containing 2,500 gallons of JP-8). One drum inside the facility is used to store new lube oil, hydraulic oil, and cleaners. Limited potential exists for these liquids to reach storm water.

3.4.3.8.3 Raptor Squadrons

The Raptor (F22) Squadrons occupy 10 buildings (Buildings 21810 through 21819), which contain multiple hangars and numerous other buildings located between Taxiways F and H, Bong Street, and Forty-Niner Avenue. Maintenance, cleaning, and fueling of F-22 Fighters occurs at these locations. Other maintenance hangars and facilities support the Raptor squadrons.

F22 aircraft are stored in the hangars except during flight operations. F22 aircraft are fueled from fuel stands located within their respective hangars. Waste fuel is unloaded from the aircraft within the hangars

using tanker trucks and/or portable bowsers. Major aircraft maintenance is performed in hangars or other designated facilities. Aircraft are cleaned in their respective hangars by wiping them down.

Various aircraft maintenance and AGE support facilities are located adjacent to the Raptor hangar taxiways. These facilities include the following operations: engine and trailer maintenance, metals fabrication shop, structural maintenance shop, aircraft fuel and exhaust system maintenance shops, AGE maintenance shop and yard, aircraft fuel and exhaust system maintenance, armament, fire station, fuel storage, aircraft inspection, aircraft fueling/defueling, washing and maintenance, and aircraft corrosion control shop. Vehicles are washed at a washrack located adjacent to Building 822. The washrack is connected to an OWS that discharges to the sanitary sewer system.

Materials used in maintenance activities such as paints, lubricants, hydraulic fluid, solvents, detergents and other cleaners, and ethylene glycol (antifreeze) are stored within the associated maintenance facility or outside in designated storage areas. No materials or wastes are stored or accumulated outside of the F22 hangars. Small quantities of hazardous materials stored inside are kept in metal storage lockers. Mer racks, which hold from four to twelve 55-gallon drums equipped with secondary containment pans, are used inside some buildings for the dispensing of petroleum products used in maintenance activities. Outside storage consists of drummed materials placed on secondary containment pallets.

Wastes generated as a result of F22 Squadron operations include waste fuel; used hydraulic fluid, antifreeze, and oil; petroleum-soaked rags; and scrap metal. Wastes generated within the F22 hangars and associated facilities are accumulated at the associated support facilities. Wastes are not accumulated within the Raptor hangars. Wastes are contained in 55-gallon drums placed on secondary containment pallets prior to transfer to DRMO for recycling or off-site disposal.

Loading/Unloading Operations

Spills of oils, cleaners, antifreeze, JP-8, AFFF, and diesel could occur during delivery to the facility. Spills may occur during loading of vehicle fluids and wastes from the Raptor Squadrons to the disposal facility. Items are loaded or unloaded in controlled, bermed areas. Spills are cleaned using absorbent pads found in spill kits. There is minimal potential for these items to affect storm water.

Outdoor Storage Activities

Bowsers and drums filled with JP-8 or diesel could have residual fuel on the outside of the containers, which could contact storm water. When spills occur on bowsers and drums, the outside is wiped and cleaned with an appropriate cleaner. Therefore, storm water and rain impact from these containers is minimal.

Drums, tubs, and bowsers containing AFFF stored outside could expand and leak. Secondary containment is in place which prevents any contact with storm water.

There is limited potential from metal sheets and pipes that are elevated off the ground (to prevent rusting) and stored outside to affect storm water.

On-Site Waste Disposal, Treatment or Storage Practices

Waste antifreeze and petroleum products are stored in 55-gallon drums outside Building 898. Used detergent and cadmium paint dust are stored in drums inside Building 866. There is minimal potential for these items to affect storm water.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

There is a washrack on-site to wash vehicles and AGE. Detergent is processed through an OWS to the sanitary sewer. There is minimal potential for this activity to affect storm water.

Liquid Storage Tanks

A lube rack containing hydraulic and lube oil could drip out of secondary containment and onto the shop floors. However, the potential to reach storm water is limited. Approximately 230,000-gallons of JP-8 is stored outdoors at the F22 Squadrons. Additionally, liquid cleaners, AFFF, diesel, antifreeze, and oil are stored in bowsers and ASTs. Engineering controls are in place at the F22 Squadrons to ensure that if a catastrophic spill occurs, liquids will be bermed and not flow to unpaved areas.

3.4.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.4.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. Areas that must be inspected at facilities within Drainage Area 004 include the following:

- Perimeter of the entire specific facility (for erosion and drainage)
- Liquid storage tank areas (including fuel storage)
- Fueling and de-fueling stations
- Fueling operations area
- Outdoor equipment storage or maintenance areas
- Outdoor hazardous materials storage units and areas

- Washrack areas
- Any temporary construction areas

Specific inspection locations for primary facilities within Drainage Area 004 are discussed in Sections 3.4.4.1.1 through 3.4.4.1.3. Additionally, inspection checklists for the different drainage area facilities are included in Appendix D.

3.4.4.1.1 Hazmart Inspection Procedures

All portions of the Hazmart area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion, drainage, and spilled or leaked material)
- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Drum storage areas
- Indoor hazardous materials storage units or accumulation areas
- Outdoor hazardous materials storage units or accumulation areas
- Any temporary construction areas

A site assessment was conducted in April 2003 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

3.4.4.1.2 Sound Suppressors Inspection Procedures

All portions of the Sound Suppressor areas, Buildings 11648 and 11649, should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion, drainage, and spilled or leaked material)
- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Outdoor areas immediately outside sound suppressors (for spills and leaks)
- Drum storage areas (for corrosion or spills)

- Any temporary construction areas
- Bowsers and AST containers (for spills and leaks)
- Waste oil bowser storage (for spills and leaks)

A site assessment was conducted in April 2003 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted.

3.4.4.1.3 Raptor Squadrons Inspection Procedures

All portions of the Raptor Squadrons (Buildings 800, 816, 820, 828, 898, 866, 868, 883, 869, 871, 877, 21810, and 21819) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Areas immediately outside indoor maintenance bays (for spills and leaks)
- Outdoor fuel storage ASTs (for spills and leaks)
- ASTs adjacent to Buildings 828, 868, 869 (for spills and leaks)
- Fuel bowsers throughout area (for spills and leaks)
- AGE parking area (for spills and leaks)
- Outdoor maintenance and storage yards
- Fueling and de-fueling stations (for spills and leaks)
- Outdoor hazardous materials storage units or accumulation areas (for spills and leaks)
- Washrack areas (Building 869)
- Any temporary construction areas

A site assessment was conducted in April 2003 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted.

3.4.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.4.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 004 are discussed in Section 4.

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3.5 Drainage Area 005

This section was developed based on information compiled during site assessment activities and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2000 that are located within Drainage Area 005 include Aerospace Fuel Testing, Newtec, and Phillips Balloon Laboratory.

These various facilities are housed in and around Buildings 837, 842, 843, 844, 845, 856, 881, 897, 899, 849, 850, and 880.

3.5.1 Drainage Area Description

Drainage Area 005 is located on the southwestern side of HAFB with an estimated size of 64 acres (Figures 3-5a and 3-5b). The approximate center of Drainage Area 005 is at 32° 50' 39" latitude and 106° 06' 44" longitude. Drainage Area 005 constitutes a large portion of the main developed part of the base, including base offices and support facilities.

This drainage area does not have an official outfall monitoring point. Surface water flow does not normally reach any waters of the U.S. It should be noted that under normal rainfall, storm water from Drainage Area 005 drains to isolated depressions (where water evaporates or percolates into the ground). However, under severe rainfall, storm water from Drainage Area 005 follows the same drainage path as drainage area 006.

3.5.2 Implementation Team for Outfall 005

The POCs for Drainage Area 005 are:

- Newtec Facilities Environmental Coordinator
- Phillips Balloon Laboratory Environmental Coordinator
- Aerospace Fuels Testing Laboratory Environmental Coordinator

3.5.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main potential pollution sources at facilities within Drainage Area 005 include acids, alcohols, chlorides, oxides, cleaners, hydraulic fluid, adhesives, penetrant, rinsate, antifreeze, motor oil, MEK, toluene, solvents, paints, and lubricants. It should be noted that the MEK and toluene are constituents in paint. Additionally, lesser amounts of metal shavings and scraps are also stored in various facilities in this drainage area.

Figure 3-5a. Drainage Area 005

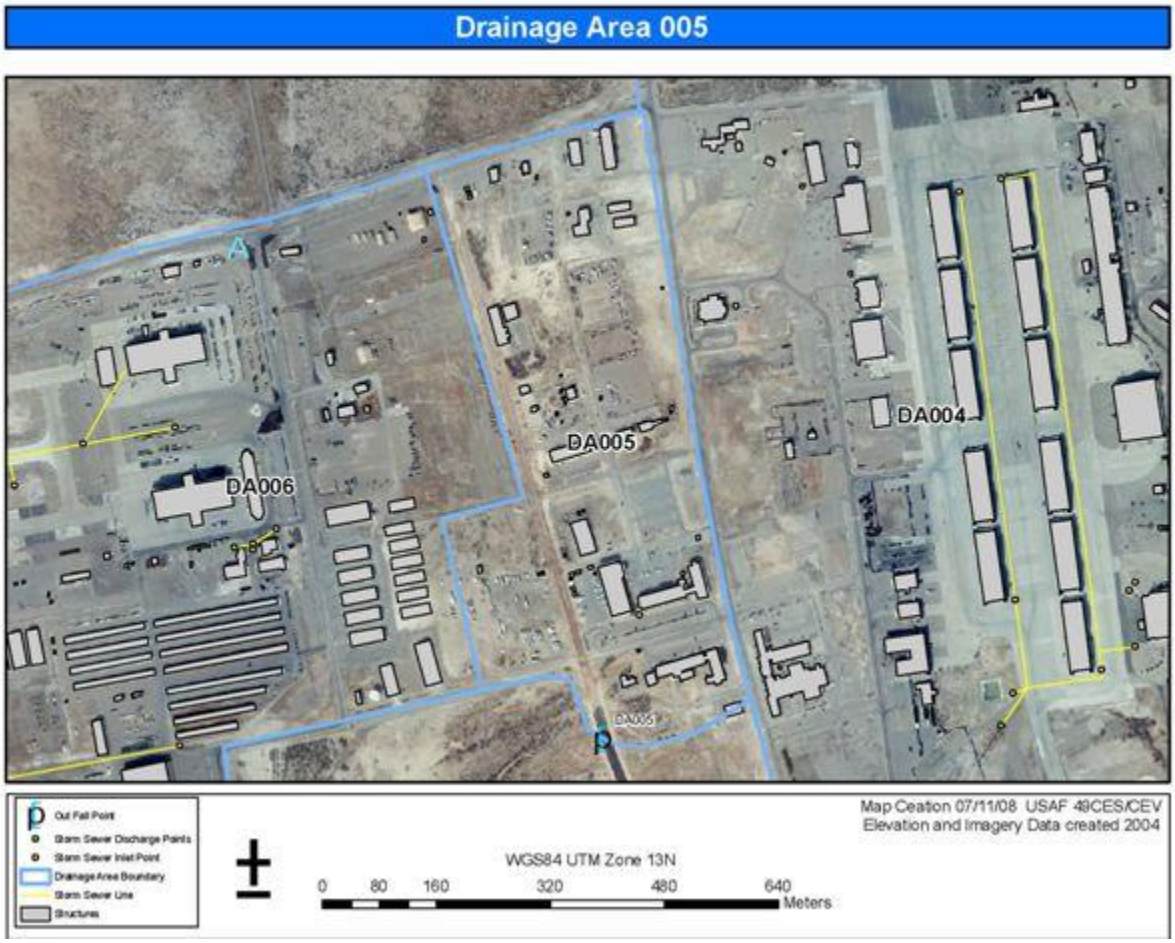
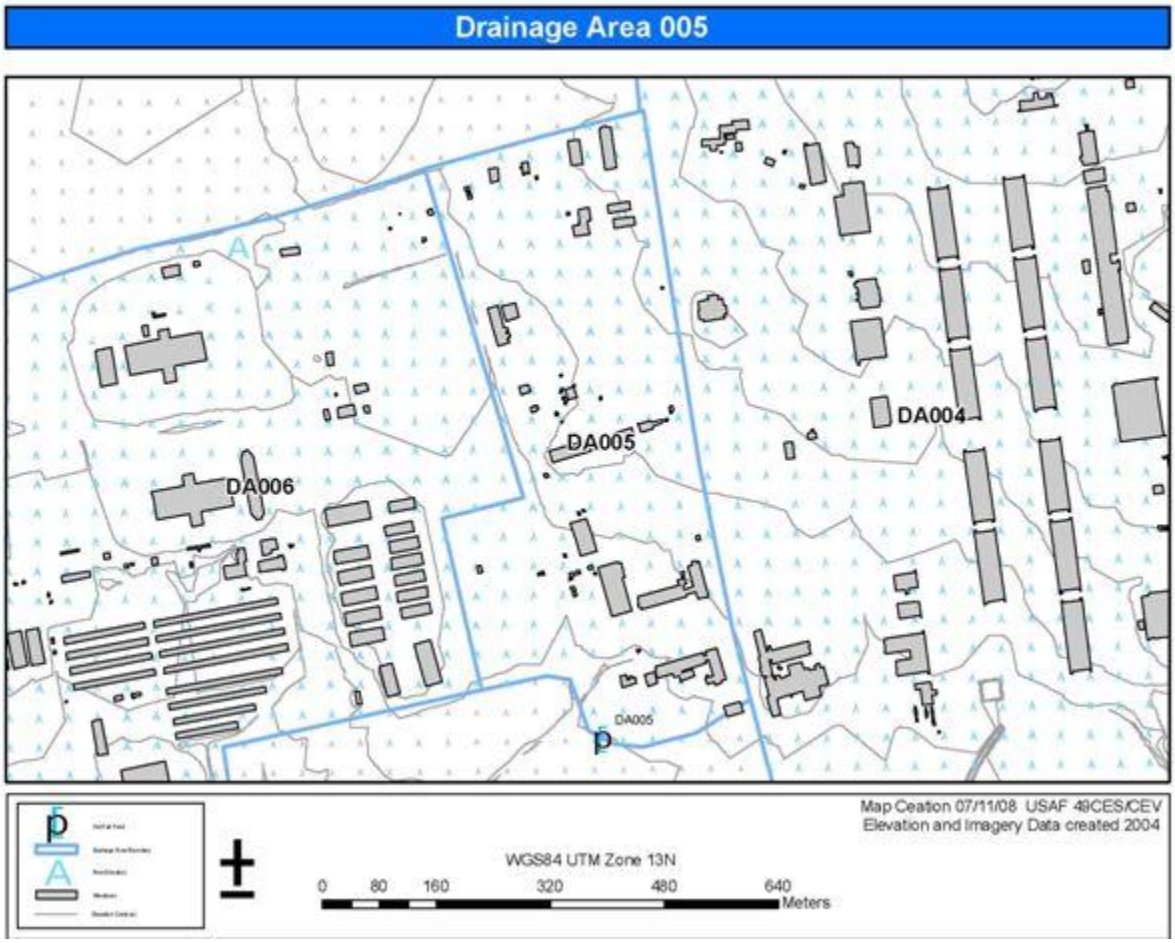


Figure 3-5b. Drainage Area 005



Compliance site inspections were conducted at Drainage Area 005 in October 2007 and April 2008 to identify potential pollution sources and inventory on-site chemicals. The results of these site assessments were used to prepare this drainage area SWPPP.

3.5.3.1 Facility Drainage

Drainage Area 005 represents a minor portion of the main developed base. Most open areas in and around Drainage Area 005 are bare earth or naturally vegetated with some xeriscaped gravel to help reduce sheet flow runoff. Storm water runoff from individual sites or buildings enters roadways where it flows into open storm ditches and into the shallow depression southwest of the outfall location. Sheet flow runoff generally flows southwest. Much of the area drains poorly with interspersed, isolated depressions collecting rainfall runoff prior to overflowing southwest along the mentioned flow paths. Drainage Area 005 discharges through open ditches and culverts to a depression and eventually to the constructed wetlands and Lake Holloman.

3.5.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 005 include petroleum hydrocarbons associated with fuels or vehicle fluids; fluids associated with telemetry equipment, photography and x-ray; and metal shavings associated with machine shops. Many activities and accumulation and storage areas in Drainage Area 005 are located indoors or in covered outdoor areas. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small amounts.

3.5.3.3 Material Inventory

Material inventory information for Drainage Area 005 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.5.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 005, which were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly seven years prior to the date of the most recent inspection in June 2008.

3.5.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.5.3.6 Storm Water Sampling Data

No storm water sampling data are available from Outfall 005.

3.5.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 005 are listed by building in Appendix O.

3.5.3.8 Risk Identification and Summary of Pollution Sources

Sections 3.5.3.8.1 through 3.5.3.8.7 describe the major facilities and functional units within Drainage Area 005 which are subject to the MSGP-2000. These facilities and functional units perform industrial activities subject to the MSGP, or maintain substantial enough quantities of materials, to represent a significant potential source of pollutants to storm water. The nature of the activities and materials stored at these facilities and potential sources and types of pollutants of concern are discussed in the sections below.

3.5.3.8.1 Aerospace Fuel Testing Laboratory

The Aerospace Fuel Testing Laboratory (Building 837) is located on the southeast corner of Tularosa Road and Moroni Drive. The laboratory is used to do limited testing of jet fuel. In the past, this facility was regularly used for fuel testing. Now much of the work is done off-site by contract. Materials used at the facility include acids, alcohol, buffers, chlorides, and oxides. The materials stored at the facility are kept in small containers located inside the facility.

Loading/Unloading Operations

Potential is limited for spills to reach storm water during unloading of chemicals used in testing of fuel samples. Chemicals are unloaded on paved or concrete areas. Fuel samples are kept in insignificant quantities on-site and are loaded/unloaded inside the building.

3.5.3.8.2 Newtec

Newtec is a government contractor whose prime mission is to maintain and operate telemetry equipment in support of White Sands Missile Range test missions. Newtec operations occupy Buildings 843, 844, 848, and 897. Telemetry equipment maintenance is conducted at Buildings 842, 843, and 856. Operations conducted at the facilities in support of Newtec's prime mission include welding (Building 843), maintenance of Newtec vehicles (Building 844), carpentry (Building 881), and supply logistics and high speed photo shop (Building 897). All metal and paint removing processes (such as sand blasting and plastic media blasting as well as any other form of abrasive blasting) will be performed inside a closed, structured facility that has all of the proper HVAC controls to retain all blasting media inside the facility

Wastes generated at the facilities are accumulated in 55-gallon drums placed on secondary containment pallets within the facilities or in structures (sheds or roofed areas) located adjacent to the maintenance buildings. A 750-gallon-capacity AST for used motor oil is located in a concrete-paved and bermed area adjacent to Building 845.

Loading/Unloading Operations

Cleaners, antifreeze, MEK, toluene, and solvents are potential pollutants. It should be noted that MEK and toluene are ingredients in paint that is used by Newtec. Since most of these items are loaded and unloaded indoors or on concrete-bermed areas, the risk of pollutants reaching storm water is limited. Potential for pollutants to reach storm water also exists during loading of used motor oil into the AST. However, this area is bermed and paved with concrete.

Outdoor Storage Activities

There is limited potential for pollutants from scrap metals to reach storm water since they are stored off the ground. Various items such as solvents, paints, thinners, and gases are stored outside in storage sheds with secondary and tertiary containment. The potential for these materials to adversely affect storm water is minimized through the use of BMPs.

On-Site Waste Disposal, Treatment or Storage Practices

Waste antifreeze and petroleum products are stored in 55-gallon drums and an AST outside. The potential for spills is minimal.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

There is a washrack on-site available to wash vehicles adjacent to Building 845. Since this washrack contains an OWS that leads to a sanitary sewer, the potential for it to adversely affect storm water is minimal.

Liquid Storage Tanks

ASTs filled with diesel could have residual fuel on the outside of the containers that could come in contact with storm water.

Erosion Potential

There is erosion potential since a large portion of the area is not paved.

3.5.3.8.4 Phillips Balloon Laboratory

The Phillips Balloon Laboratory occupies Buildings 849 and 850, which are located on the southwest corner of Forty-Niner and West Snark Avenues. At this location, balloons are assembled and helium tanks used for balloon launches are stored. Helium tanker trucks are kept outdoors. A 250-gallon-capacity secondary-contained (double-wall tank) AST is located adjacent to the Building 850 in an unbermed area. The tank is used to store diesel fuel for an emergency generator located within the facility. Spills during loading at the AST could expose fuel to storm water.

Loading/Unloading Operations

Oil is kept in a storage locker, and diesel is stored in a double-walled 285-gallon AST. The potential for oil kept in a storage locker to reach storm water is minimal. There is potential for spills during loading and unloading of diesel into the AST.

Outdoor Storage Activities

Diesel is stored in an outdoor double-walled 285-gallon AST. There is minimal potential for spills to occur during storage activities. Any spills that occur during loading and unloading are immediately cleaned with absorbent material, and surfaces are washed.

Liquid Storage Tanks

Diesel is stored in an outdoor double-walled 285-gallon AST. There is minimal potential for spills to occur during storage activities. Any spills that occur during loading and unloading are immediately cleaned with absorbent material, and surfaces are washed.

3.5.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.5.4.1 Site Inspection and Maintenance Procedures

The drainage area will be monitored by quarterly outfall inspections. Areas that must be inspected at facilities within Drainage Area 005 include the following:

- Perimeter of the entire specific facility (for erosion and drainage)
- Liquid storage tank areas (including fuel storage)
- Fueling and defueling stations
- Outdoor equipment storage or maintenance areas

- Outdoor hazardous materials storage units and areas
- Washrack areas
- Any temporary construction areas

Specific inspection locations for the various primary facilities within Drainage Area 005 are discussed in Sections 3.5.4.1.1 through 3.5.4.1.3.

3.5.4.1.1 Aerospace Fuel Testing Laboratory Inspection Procedures

All portions of the Aerospace Fuel Testing Laboratory area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Drum and container storage areas
- Indoor hazardous materials storage units or accumulation areas

3.5.4.1.2 Newtec Inspection Procedures

All portions of the Newtec area (Buildings 842, 843, 844, 845, 856, 881, and 897) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor storage area (for erosion and drainage or spilled or leaked material)
- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Outdoor areas immediately outside maintenance shops (for spills and leaks)
- Drum storage areas (for corrosion or spills)
- Any temporary construction areas
- Washrack areas

- Motor Pool's bone yard
- Bowsers and AST containers (for spills and leaks)
- Waste oil bowsers storage (for spills and leaks)

3.5.4.1.3 Phillips Balloon Laboratory Inspection Procedures

All portions of the Phillips Balloon area (Buildings 849 and 850) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected.

- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Drum storage areas (for corrosion or spills)
- AST container (for spills and leaks)

3.5.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.5.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 005 are discussed in Section 4.

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3.6 Drainage Area 006

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 that are located within Drainage Area 006 include Bare Base 49th Materiel Maintenance Group facilities.

Drainage Area 006 facilities are housed in and around Buildings 901, 1225, 1227, 902, 903, 907, 906, 918, and 958.

3.6.1 Drainage Area Description

Drainage Area 006 is located on the southwestern side of HAFB, and the estimated size is 157 acres (Figures 3-6a and 3-6b). The approximate center of Drainage Area 006 is at 32° 50' 28" latitude and 106°07' 21" longitude. Drainage Area 006 constitutes a large portion of the main developed base, including many base offices and support services.

3.6.2 Implementation Team for Outfall 6

The 49 MMG (Bare Base) Environmental Coordinator is the primary POC for this area.

3.6.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at facilities within Drainage Area 006 include used motor oil and antifreeze, diesel, paint, oil, pesticides, unleaded fuel, and various hazardous materials. Compliance site inspections were conducted at Drainage Area 006 in October 2007 and April 2008 to identify the pollution sources and inventory the on-site chemicals. The results of the site assessments were used to prepare this drainage area SWPPP.

3.6.3.1 Facility Drainage

Drainage Area 006 is mainly undeveloped, and the surface is mostly soil or naturally vegetated. Portions of Bare Base are paved, and additional areas will be developed and paved in the future. Storm water runoff enters the paved areas where it flows into surface ditches or storm drains and into the storm sewer system. Sheet flow runoff at Drainage Area 006 flows west, with some flows east of Bear Path Road flowing south to a culvert intercept before proceeding west to the outfall. There are approximately five storm drains in Drainage Area 006. There are two main storm water sewer lines in the area flowing west, which discharge at Outfall 006. Drainage Area 006 discharges through a culvert to a storm water drainage ditch, which in turn discharges to an isolated wetland south of the area.

Figure 3-6a. Drainage Area 006

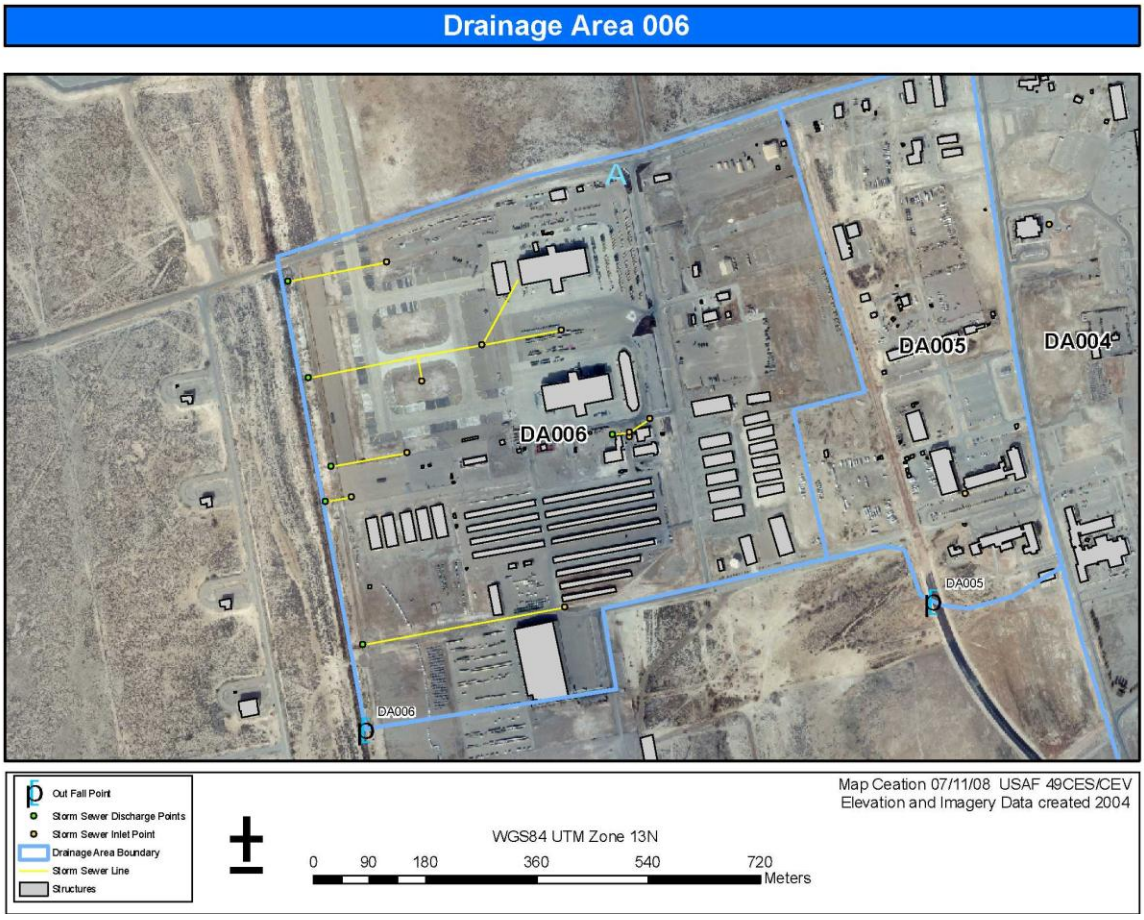
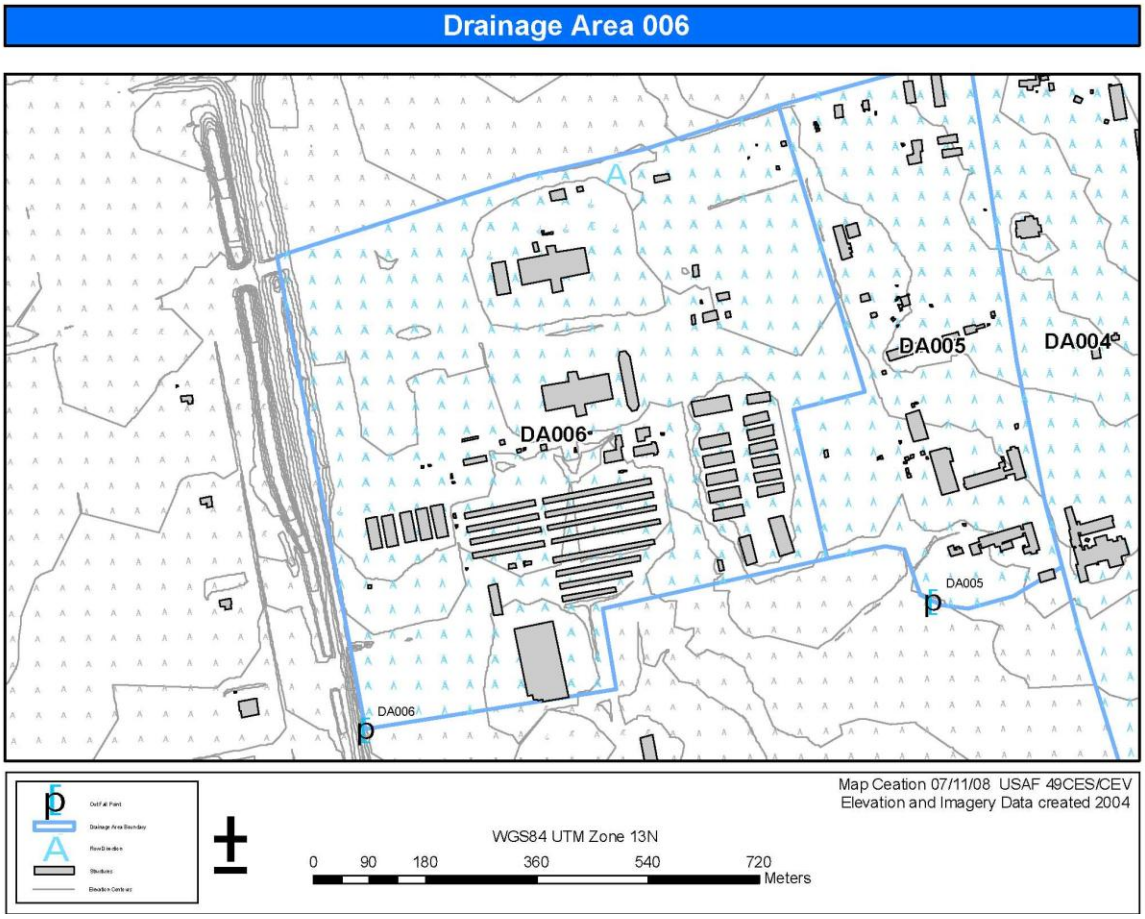


Figure 3-6b. Drainage Area 006



3.6.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 006 include petroleum hydrocarbons associated with fuels or vehicle fluids, fluids associated with a chemical storage area, and paints associated with corrosion control. Many activities and accumulation and storage areas in Drainage Area 006 are located indoors or in covered outdoor areas. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small amounts.

3.6.3.3 Material Inventory

Material inventory information for Drainage Area 006 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.6.3.4 Significant Spills and Leaks

In September 2002, a spill occurred at the 5,250-gallon AST west of Building 902. Approximately 20 gallons of diesel fuel overflowed onto the land surface from the bermed area around the AST. Hazmart and CEV responded to the spill by removing contaminated soil and spraying an enzymatic compound on the area. The diesel flowed onto the soil, and during the April 2003 compliance evaluation (approximately 7 months after the initial discharge) staining was still visible. A concrete secondary containment area was constructed under the diesel fuel dispensing header/valves/pipeline to reduce the likelihood of similar types of releases in the future.

3.6.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.6.3.6 Storm Water Sampling Data

Outfall sampling data are presented in Table 3.6-1.

3.6.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 006 are listed by building in Appendix O.

Table 3.6-1 Outfall 6: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	NH_3 (mg/L)	NO_3 & NO_2 (mg/L)	TKN (mg/L)	COD (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)
06/06/1997	0.48					62	160	0.96
09/09/1997	0.15					260	42	<5.0
09/22/1997	0.18					72	28	<5.0
10/22/1997	0.22					290	240	<5.0
12/07/1997	0.15					38	180	<5
10/26/1998	0.19	7.8				9	60	
10/31/1998	0.39	7.23				20	ND	
03/17/1999	0.26	7.42				15	14	
06/29/1999		6.49						
07/17/1999		6.31						
08/05/1999	0.27	7.32				8	18	
09/02/1999		7.20						
09/13/1999	0.38					32	66	
06/17/2000	0.9	6.88	0.19	2.16	2.9	62	12	ND
07/12/2000	0.12	7.26	0.19	1.9	0.5	24	74	7
10/28/2000	0.55	7.8	<0.1	0.6	<1	9	<5	<1
01/27/2001	0.29	7.2	<0.1	10.7	0.6	<4.0	12	<2.0
05/13/2001	0.48	7.84	<0.1	8.88	0.7	20	100	<2.0
07/22/2001		7.8	0.5	7.44	4.1	67	54	<1
02/04/2002	0.25	6.5	ND	1.46	0.9	38	92	ND
07/14/2002		7.6						
10/08/2002		8.9						

3.6.3.8 Risk Identification and Summary of Pollution Sources

The Materiel Maintenance Group (Bare Base) is located within Drainage Area 006 off of Kelly Road between Moroni and Hale Drives. The facilities (Buildings 901, 1225, 1227, 13901, 902, 907, 903, 906, 909, 918, 953, 956, and miscellaneous storage buildings) at Bare Base are used to store and maintain field support equipment used for training and military deployment actions. An asphalt-paved area located adjacent to Building 901 is used to store field materials and equipment, including metal and PVC pipe, shelters, kitchens, latrines, refrigerators, fueled generators and light sets, bowsers, and other miscellaneous equipment. Some equipment is covered, while some is exposed to the elements. Fuel is stored west of Building 902, and Building 901 is used for equipment maintenance. Building 903 is used for painting of support equipment and aircraft. Hazardous materials are stored in metal lockers and a Connex® shed located adjacent to Building 901 and in Buildings 958, 1225, and 1227.

Loading/Unloading Operations

The potential exists for spills during loading and unloading of motor oil, antifreeze, oil, and paint into various containers. When spills occur, they are immediately cleaned with absorbent pads or other dry cleanup methods. Limited potential exists for chemicals and hazardous waste to reach storm water since these items are loaded and unloaded in sheltered and bermed storage facilities. Loading and unloading operations take place in paved, bermed areas with secondary containment. When spills occur, they are cleaned immediately in accordance with the HAFB SPCC Plan.

Outdoor Storage Activities/Liquid Storage Tanks

ASTs containing diesel and unleaded fuel are stored outside in bermed, secondary containment. Potential exists for tank failure, as shown in the past. Precautions such as berms and secondary containment are implemented, and BMPs are exhibited. Therefore, potential is limited for diesel and unleaded fuel to reach storm water. In the event of a catastrophic accident, a large portion of fuel would be contained by berms.

Various hazardous materials are stored outside under shelters on concrete pads with secondary containment. Potential is limited for these materials to reach storm water.

Erosion Potential

Portions of Bear Base are not paved. Therefore, there is a potential for adverse affects to storm water.

3.6.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.6.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. All portions of the Bare Base area (Buildings 901, 1225, 1227, 902, 903, 907, 903, 906, 918 and 958) should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected.

- Perimeter of all facilities (for erosion and drainage)
- Outdoor vehicle parking and maintenance areas (for spills and leaks
- Drum and AST storage areas (for spills and leaks)
- Area outside maintenance bays (for drainage and/or pollutants)
- Indoor hazardous materials storage units or accumulation areas (for spills and leaks)
- Outdoor hazardous materials storage units or accumulation areas (for spills and leaks)
- Fueling and de-fueling areas
- Washrack
- Painting area
- Equipment storage area
- Any temporary construction areas

Site assessments were conducted in October 2007 and April 2008 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

3.6.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.6.4.3 Monitoring and Reporting Requirements

Monitoring requirements for the entire base as well as those specific to Drainage Areas 006 are discussed in Section 4 of this SWPPP.

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3.7 Drainage Area 008

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 that are located within Drainage Area 008 include the Test Track Support Facilities.

These various facilities are housed in and around Buildings 1166, 1173, 1178, 1178A, 1180, and 1185.

3.7.1 Drainage Area Description

Drainage Area 008 is located on the mid-west side of HAFB (north of the main base area), and the estimated size of the drainage area is 27 acres (Figures 3-7a and 3-7b). The approximate center of Drainage Area 008 is at 32° 53' 18" latitude and 106° 08' 34" longitude. Drainage Area 008 constitutes a small portion of the main developed base and includes only a few base offices and support services.

3.7.2 Implementation Team for Outfall 008

The Test Track Support Facilities Environmental Coordinator is the primary POC for this area.

3.7.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at the facilities located within Drainage Area 008 include spent Nike missile rocket motors, methanol, rust inhibitor, anti-coagulant, diesel, unleaded fuel, oil, coolant, hydraulic fluid, cleaners, adhesives, paint, and thinner. Additionally, lesser amounts of metal shavings and scraps are stored in various facilities in this drainage area.

3.7.3.1 Facility Drainage

Since Drainage Area 008 represents the Test Track Support Facilities, much of the area is paved as streets or parking areas. Sheet flow runoff flows south, east, and west. Drainage Area 008 discharges toward Lost River by sheet flow from the area containing Test Track support facilities. Lost River is a protected habitat for the White Sands Pupfish, a NM-listed species of concern.

3.7.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows from Drainage Areas 008 include petroleum hydrocarbons associated with Test Track Operations, cleaners, and paints. Many activities and accumulation and storage areas in Drainage Area 008 are located indoors or in covered outdoor areas. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small amounts.

Figure 3-7a. Drainage Area 008

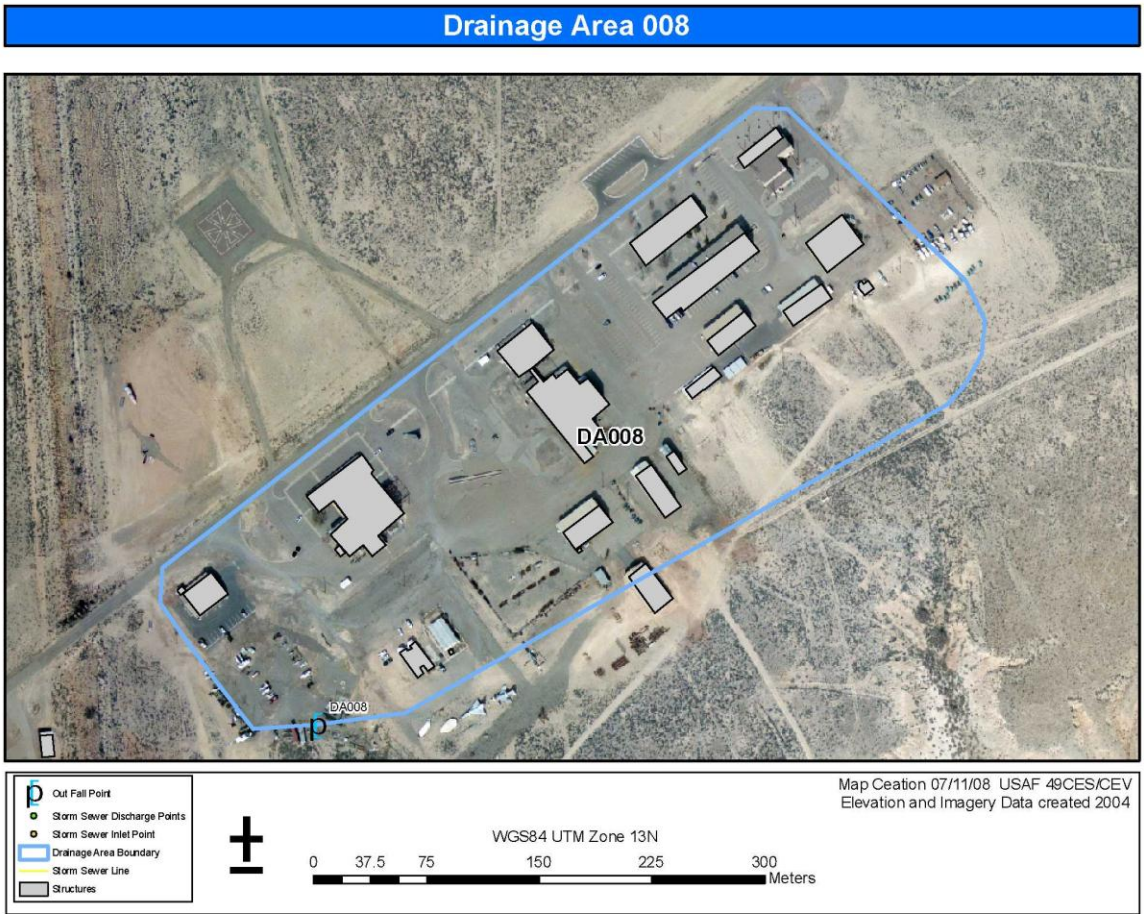
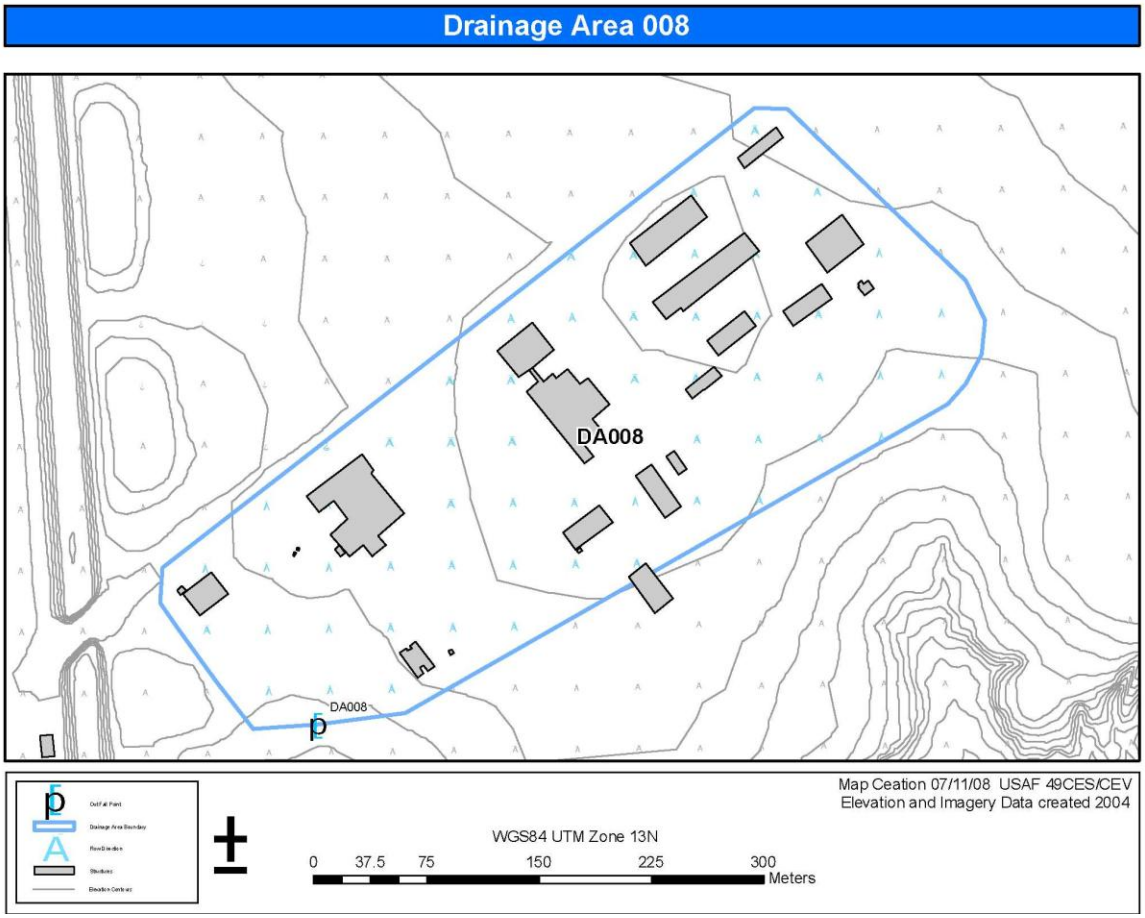


Figure 3-7b. Drainage Area 008



3.7.3.3 Material Inventory

Material inventory information for Drainage Area 008 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.7.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 008 that were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly seven years prior to the date of the most recent inspections in October 2007 and April 2008.

3.7.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage.

3.7.3.6 Storm Water Sampling Data

Sampling data are presented in Table 3.7-1.

Table 3.7-1 Outfall 8: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	NH_3 (mg/L	NO_3 & NO_2 (mg/L)	TKN (mg/L)	COD (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)
11/04/2000	0.31	7.67	0.2	2	1.9	38	<5	<1
07/21/2001		7.61	1.0	4.78	5.9	67	69	<1

3.7.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 008 are listed by building in Appendix O.

3.7.3.8 Risk Identification and Summary of Pollution Sources

This section describes the major facilities and functional units within Drainage Area 008 that are subject to the MSGP-2008. These facilities and functional units perform industrial activities subject to the MSGP, or maintain substantial enough quantities of materials, to represent a significant source of

pollutants to storm water. The nature of the activities and materials stored at these facilities and sources and types of pollutants of concern are discussed in the sections below.

The Test Track Support Facilities are located east of the Test Track, adjacent to Lost River. The activities associated with the Test Track Support Facilities are described below. The Test Track itself is a national defense testing support facility, not an industrial facility. The Test Track Support Facilities include Buildings 1166, 1173, 1178, 1178A, 1180, and 1185. Activities that are conducted in the Test Track Support Facilities include the fabrication and maintenance of sleds and related test components (Buildings 1173 and 1178), painting (Building 1178A), and metal fabrication, heat treating, and sand blasting (Building 1185).

Materials used at the Test Track Support Facilities are either stored inside the buildings or outside in storage lockers or covered areas, with the exception of raw metals. Raw metals are stored on racks adjacent to some facilities and on racks within an unpaved, chain link-fenced yard located adjacent to Building 1185. Diesel and unleaded fuel are stored in ASTs south of Building 1166 and east of Building 1180. There are two quenching tanks in Building 1166. One is a 1,500-gallon tank, and one is a 1,800 gallon open tank. Both are 80 percent underground/20 percent aboveground and contain a non-petroleum quenching oil for use inside a shop. Cleaners, solvents, paints, and thinners are kept indoors.

Loading/Unloading Operations

Limited potential exists to expose shop supplies such as adhesives, cleaners, and solvents to storm water during loading/unloading. Limited potential exist for containing methanol, rust inhibitors, anti-coagulant to reach storm water during loading of drums. These items are loaded into a sheltered, concrete-bermed area. Potential exists for new and used oils to reach storm water during loading and unloading into ASTs.

Outdoor Storage Activities

ASTs containing diesel and unleaded fuel are on-site. Potential is minimal for contaminants to reach storm water from storage activities. Fifty-five gallon drums outside contain methanol, rust inhibitor, and anti-coagulant. These items are stored under a shelter and in a bermed area. Potential for these chemicals to reach storm water is minimal. Storage racks of various metals are kept outside. The racks elevate the metals and prevent rust. The potential for these metals to reach storm water is minimal.

Outdoor Manufacturing or Processing Activities

Fabrication of sleds and aircraft components occurs at Building 1173. Outdoor welding and fabrication activities could expose metals and filings to storm water. It is a BMP to perform these activities indoors, unless the outdoor work area is contained and has flooring that is cleanable. When BMPs are adhered to, this activity has minimal affect on storm water.

On-Site Waste Disposal, Treatment, or Storage Practices

Water and sludge cuttings from water jet cutters are pollutants for storm water. However, the sludge has been tested for metals, and none have been detected above background concentrations. Therefore, this

sludge is stored temporarily near the cutters and then thrown away as domestic refuse. Spent Nike missiles and rocket motors have pollutants of fuel and oils. These items should be drained and wiped down for disposal as metal waste. When BMPs are adhered to, this activity has minimal affect on storm water.

Fueling of vehicles occurs east of Building 1180, and a 2,000-gallon AST contains diesel which is a pollutant. Since the on-site spill kit is used to clean up fuel spills when they occur, there is limited potential for fuel to reach storm water.

Vehicle/Equipment Maintenance and/or Cleaning Areas

A washrack south of Building 1166 has the pollutant of detergent. OWSs are used to control the amounts of detergent that reach water drains, and discharges from the OWSs are routed to the sanitary sewer. Since the washrack collects the used water and detergent, it decreases the possibility of detergents being washed into storm water runoff during rain.

Liquid Storage Tanks

There are several ASTs containing diesel and unleaded fuel. Drums containing methanol, rust inhibitor, and anti-coagulant are stored under a shelter near Building 1166. The area is bermed and has concrete floors. The potential for these ASTS, drums, or their contents to adversely affect storm water is minimal.

Erosion Potential

Some areas are paved, and potential for erosion is minimal. Other areas are xeriscaped and graveled which helps to control erosion.

3.7.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.7.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. All portions of the Test Track Support Facilities area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Perimeter of Buildings 1166, 1173, 1178, 1178A, 1180, and 1185 (for erosion and drainage)
- Outdoor methanol storage area

- Washrack
- Painting areas
- Fueling areas
- ASTs and surrounding area (for spills and leaks)
- Area immediately outside maintenance bays (for spills and leaks draining outside)
- Indoor hazardous materials storage units or accumulation areas
- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Any temporary construction areas

Inspection checklists for the drainage area facilities are included in Appendix D. Site assessments were conducted in October 2007 and April 2008 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

3.7.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.7.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 008 are discussed in Section 4.

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3.8 Drainage Area 009

This section was developed based on information compiled during site assessments and personnel interviews. The industrial facility subject to the requirements of the MSGP-2008 that is located within Drainage Area 009 is the Wastewater Treatment Plant (WWTP).

3.8.1 Drainage Area Description

Drainage Area 009 is located on the southern side of HAFB, and the estimated size of the drainage area is 3 acres (Figures 3-8a and 3-8b). The approximate center of Drainage Area 009 is at 32° 50' 04" latitude and 106° 06' 20" longitude. Drainage Area 009 consists of the base WWTP.

3.8.2 Implementation Team for Outfall 009

The WWTP Environmental Coordinator is the primary POC for this area.

3.8.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at the facilities located within Drainage Area 009 are sodium hydroxide, chlorine, sulfur dioxide, and used diesel oil.

HAFB conducted a compliance site inspection at Drainage Area 009 in October 2007 to identify pollution sources and inventory on-site chemicals. The results of that site assessment were used to prepare this drainage area SWPPP.

3.8.3.1 Facility Drainage

Since Drainage Area 009 represents the WWTP, much of the area is paved as streets or parking areas. Many open areas in and around Drainage Area 009 are naturally vegetated or xeriscaped with gravel and native plants to help reduce sheet flow runoff. This drainage area is relatively small as compared with the other drainage areas. Drainage Area 009 discharges through a culvert to a jurisdictional wetland.

Figure 3-8a. Drainage Area 009

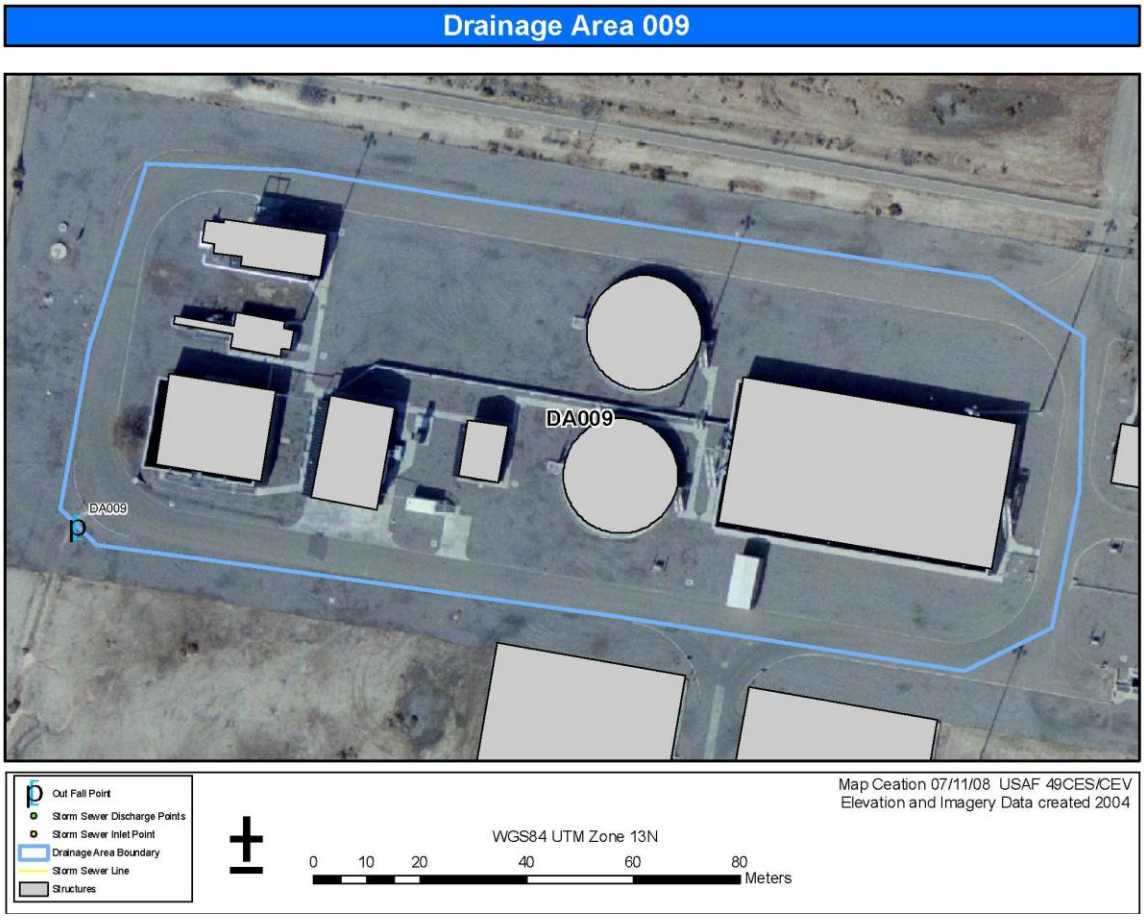
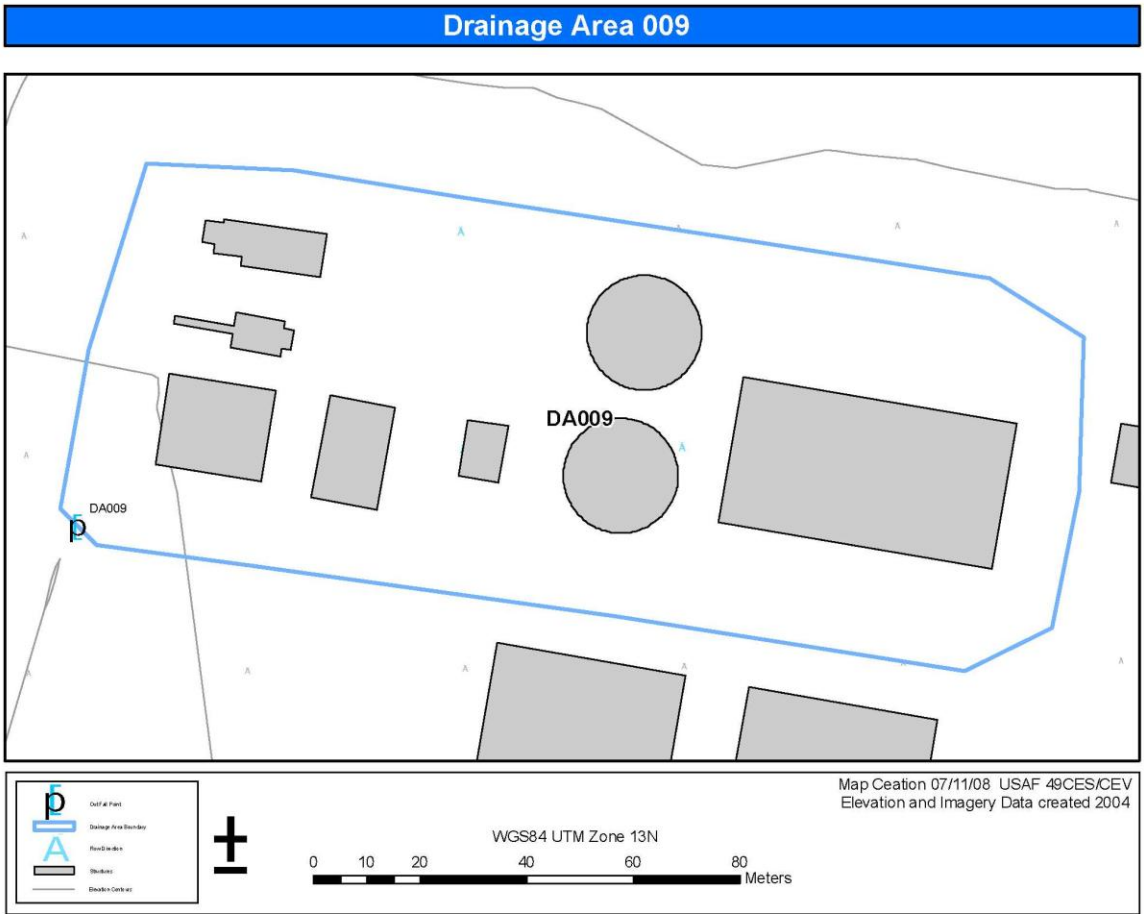


Figure 3-8a. Drainage Area 009



3.8.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 009 include chemicals associated with wastewater treatment. Many activities and accumulation and storage areas in Drainage Areas 009 are located indoors or in covered outdoor areas. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small amounts.

3.8.3.3 Material Inventory

Material inventory information for Drainage Area 003 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.8.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants in Drainage Area 009 that were exposed to precipitation or drained to a storm water conveyance since January 2001. This date is roughly seven years prior to the date of the most recent inspection in October 2007.

3.8.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.8.3.6 Storm Water Sampling Data

Sampling data are presented in Table 3.8-1.

3.8.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 009 are listed by building in Appendix O.

3.8.3.8 Risk Identification and Summary of Pollution Sources

Drainage Area 009 discharges through a culvert to a jurisdictional wetland. The WWTP is located within Drainage Area 009, south of Forty-Niner Avenue and east of the Old Lagoons and Holloman Golf Course. The MSGP defines any domestic sewage treatment plant with a design flow of 1.0 mgd or more to be an industrial activity. The sewage treatment plant at HAFB has a design capacity of 1.5 mgd.

Table 3.8-1 Outfall 9: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	NH_3 (mg/L)	NO_2 (mg/L)	NO_3 (mg/L)	Organic N (mg/L)	NO_3 & NO_2 (mg/L)	NO_3 & NO (mg/L)	TKN (mg/L)	BOD (mg/L)	TSS (mg/L)	Fecal Coliform (mg/L)
09/22/1997	0.18		<0.3				74	74	2.9	2.5	35	NT
10/22/1997	0.22		0.3				11	11	2.4	<2.0	50	NT
07/28/1998		7.27	0.4			1.7	10.63		2.1	ND	61	<20
07/31/1998	0.1	7.26	ND			ND	11.5		ND	ND	62	
08/05/1998		7.19	ND			0.7	9.1		0.7	ND	369	13/L
10/26/1998	0.19	7.75		ND	5.4						12	
10/31/1998	0.39	7.69		ND	2.9		0.7				18	
11/28/1998	0.49	7.62									50	
12/02/1998	0.38	7.40		ND	12.5		2.8				25	
03/17/1999	0.26	7.19			5.2		5.2				33	
06/29/1999	0.49	6.19			9		9				184	
07/17/1999	0.11	6.53			2.48		2.48				67	
08/05/1999	0.27	6.74			12.1		12.1				134	
09/02/1999	2.48	6.89			5.53		5.53				1480	
09/13/1999	0.38				5.73		5.73				1268	
06/17/2000	0.9	7.33	0.39				18.7		2.5	HTB	252	<1
07/29/2000	0.17	6.74	0.29				7.74		<0.5	HTB	175	HTB
10/21/2000	0.56	7.2	0.1				6.3		1.3	HTB	42	HTB
09/13/2001	1.6	7.8	0.1				7		1.1	<3	173	HTB

The areas around the treatment works discharge to two drainage ditches that do not discharge into Lake Holloman, but rather into heavily vegetated areas. The USACE determined that these areas are wetlands and, thus, waters of the United States.

Sodium hydroxide, chlorine, sulfur dioxide and diesel fuel are the main hazardous materials stored at the WWTP. Sodium hydroxide, sulfur dioxide and chlorine are stored indoors, and the diesel fuel is contained in a 4,000-gallon AST equipped with secondary containment. Used oil is stored outside in a 55-gallong drum.

Loading/Unloading Operations

Sodium hydroxide, chlorine gas, and sulfur dioxide are stored in compressed gas cylinders on-site. These compressed gas cylinders are loaded and unloaded indoors and have limited potential to reach storm water. Diesel (contained in a 4,000-gallon AST) and used oil (collected in one 55-gallon drum) have the potential to be spilled during operations. However, these areas have secondary containment, and fluids are loaded only over these areas.

Outdoor Storage, Manufacturing or Processing Activities

Waste oil is stored outside in a 55-gallon drum, and diesel is stored in a 4,000-gallon AST. Minimal potential exists for these fluids to reach storm water during storage activities. The sewage treatment plant stores approximately 1.5 million gallons of treated and untreated water. This facility was engineered to be contained until water has been treated and is safe for humans. Minimal potential exists for sewage water to reach storm water.

On-Site Waste Disposal, Treatment, or Storage Practices

Sewage waste is stored on-site and is treated by primary, secondary, and tertiary treatments. Sewage sludge is kept in ponds adjacent to the facility until dry and then disposed of off-site. This sludge has minimal potential to affect storm water.

Liquid Storage Tanks

Tanks containing 1.5 million gallons of sewage at different stages of treatment are stored on-site in permanent structures. One AST contains 4,000 gallons of diesel fuel which is stored on-site. This AST has minimal potential to affect storm water.

3.8.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.8.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall. All portions of the WWTP area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Outdoor vehicle parking and maintenance areas (for spills and leaks)
- Drum and container storage areas

- ASTs and surrounding area (for spills and leaks)
- Area immediately outside chemical storage (for spills and leaks draining outside)
- Indoor hazardous materials storage units or accumulation areas
- Any temporary construction areas
- Perimeter of treatment ponds
- Sludge ponds (for containment)

Inspection checklists for this drainage area are located in Appendix D.

A site assessment was conducted in April 2003. At that time, no issues of concern were noted at this facility.

3.8.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix O.

3.8.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 009 are discussed in Section 4.

3.9 Drainage Area 011

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 within Drainage Area 011 include those associated with T-38 maintenance operations and transient aircraft maintenance operations.

These various facilities are housed in and around Buildings 578 through 580.

3.9.1 Drainage Area Description

Drainage Area 011 is located in the south central portion of HAFB (east of Drainage Area 010, along the west edge of the main base area), and the estimated size of the drainage area is 16 acres (Figure 3-9a and 9b). The approximate center of Drainage Area 011 is at 32° 50'11" latitude and 106° 05' 48" longitude. Drainage Area 011 consists of T-38 Operations (conducted in three buildings) and the flight line.

3.9.2 Implementation Team for Outfall 011

The T-38 Consolidated Aircraft Maintenance Contract Environmental Coordinator is the primary POC for this area.

3.9.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at the facilities located within Drainage Area 011 include oil, JP-8, degreasers, adhesives, and aircraft cleaners.

Compliance site inspections were conducted at Drainage Area 011 in October 2007 and April 2008 to identify pollution sources and inventory on-site chemicals. The results of these site assessments were used to prepare this drainage area SWPPP.

3.9.3.1 Facility Drainage

Since Drainage Area 011 represents T-38 Operations, much of the area is paved as streets, runways, taxi ways, or parking areas. Storm water runoff flows from individual sites or buildings and enters one of three inlets, where it flows into storm drains and into the storm sewer system. Sheet flow runoff flows southeast. Storm water from Drainage Area 011 discharges through a culvert to a drainage ditch, which in turn discharges to Lake Holloman.

Figure 3-9a. Drainage Area 011

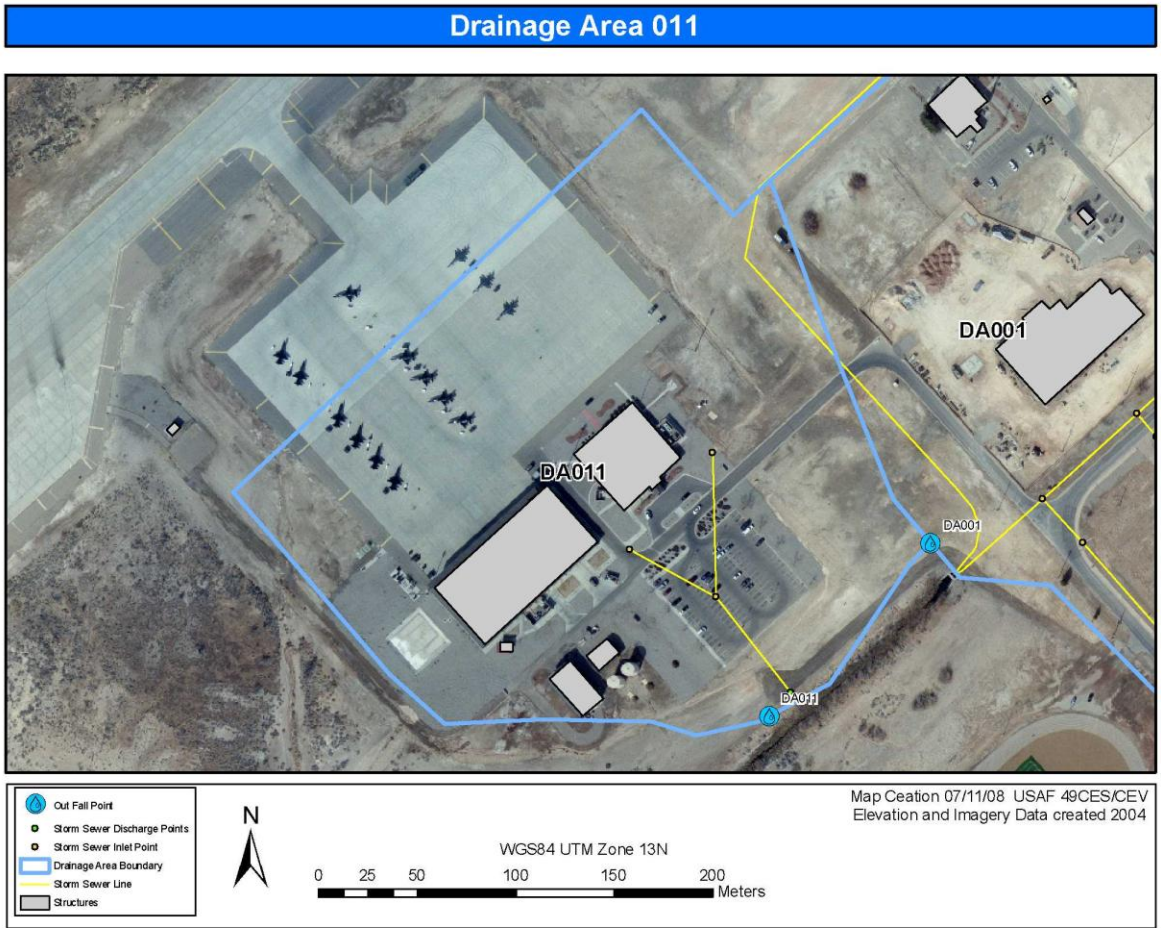
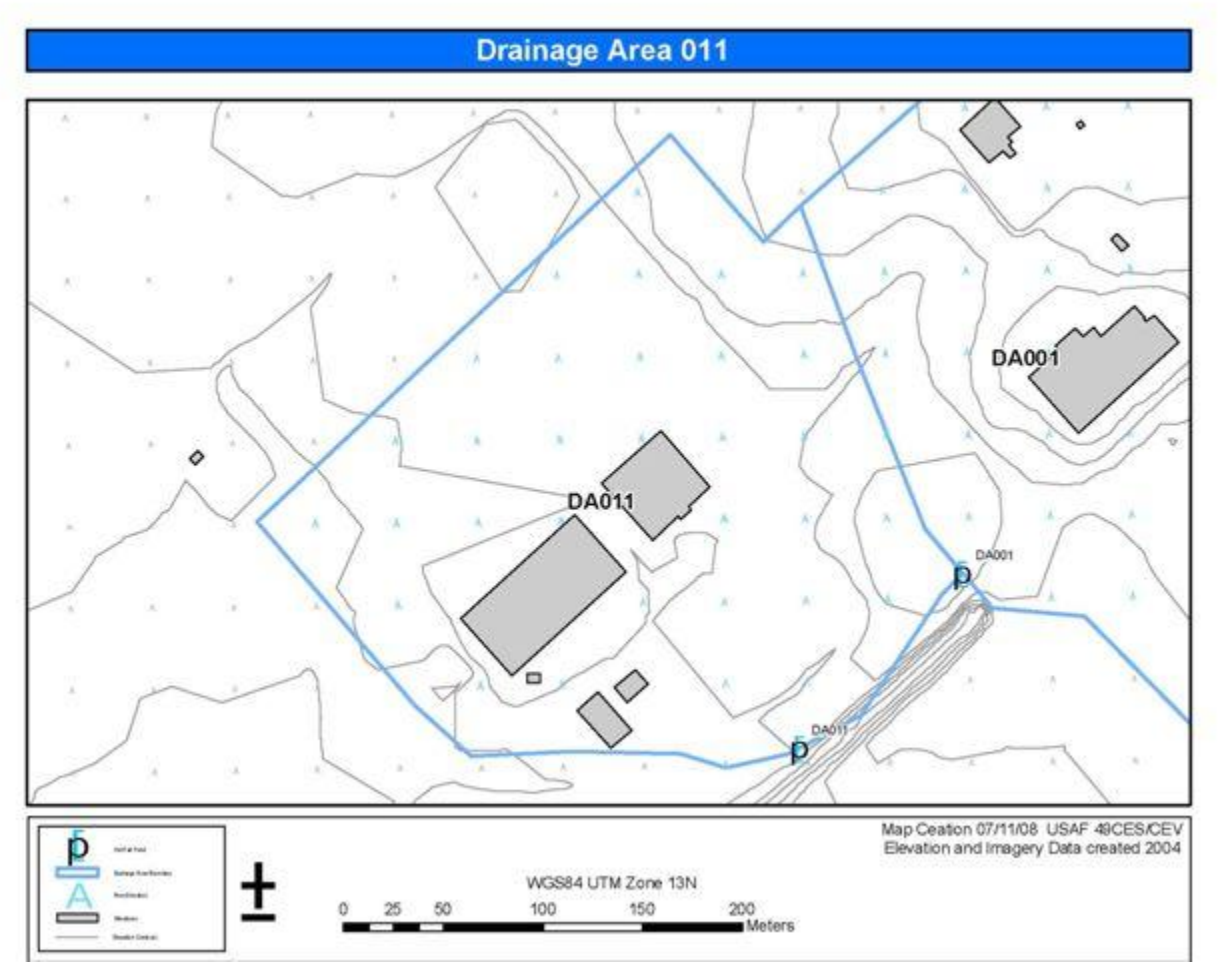


Figure 3-9b. Drainage Area 011



3.9.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 011 would include petroleum hydrocarbons associated with maintaining and fueling aircraft. Many activities and accumulation and storage areas in Drainage Area 011 are located indoors. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small, residual amounts.

3.9.3.3 Material Inventory

Material inventory information for Drainage Area 011 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.9.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 011 that were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly six years prior to the date of the most recent inspection in October 2007.

3.9.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage.

3.9.3.6 Storm Water Sampling Data

Sampling data are presented in Table 3.9-1.

3.9.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 011 are listed by building in Appendix O.

3.9.3.8 Risk Identification and Summary of Pollution Sources

This section describes the major facilities and functional units within Drainage Area 011 that are subject to the MSGP-2008. These facilities and functional units perform industrial activities subject to the MSGP, or maintain substantial enough quantities of materials, to represent a significant source of pollutants to storm water. The nature of the activities and materials stored at these facilities and sources and types of pollutants of concern are discussed in the sections below.

Table 3.9-1 Outfall 11: Storm Water Analyses and Field Data

Date	Precipitation (inches)	pH (s.u.)	COD (mg/L)	TDS (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)
09/22/1997			100		<20	<5.0
10/22/1997			88		170	<5.0
12/07/1997			77		180	<5
06/11/1998			1150		19.0	5.0
07/31/1998		7.46	14		5	ND
08/05/1998		7.3	14		26	ND
10/20/1998	0.38	7.32	67			
10/26/1998		7.19	15			
10/31/1998	0.39	7.21	17			
12/02/1998		7.33	35			
06/29/1999		6.38				
07/17/1999	0.11	7.05	110			
08/05/1999	0.27	6.13	48			
09/13/1999	0.38		32			
03/22/2000			ND		20	ND
06/17/2000	0.9	7.31	ND		606	ND
07/12/2000	0.12	7.18	70		10	7
10/28/2000	0.55	7.9	20		<5	<1
05/13/2001	0.38	7.45	35		20	<2.0
07/26/2001	0.13	7.32	160		43	<4.0
02/03/2002	0.24	6.89	47		27	ND
07/16/2002		6.83				
10/18/2002	0.41	7.64				

The T-38 maintenance hangar is located in Building 578 on the Main Flight Line. Maintenance, fueling, and ground support for T-38 aircraft take place at this location. All major maintenance is performed inside Building 578. Aircraft (including the T-38 and transient aircraft) are fueled and waste fuel unloaded in a concrete-paved area located adjacent to Building 578. Floor drains inside the hangar flow to a strip drain located within the facility, where it is routed through an OWS to the sanitary sewer. It should be noted that the strip drain contains a transfer valve that is activated when the fire suppression system is activated. The drain containing Aqueous Film Forming Foam (AFFF) is routed to an evaporation pond.

Adhesives, grease, paint, expired shelf-life material, degreaser and solvents are kept in storage lockers. Fuel bowsers are used to store JP-8 outside, and used oil is stored in a 55-gallon drum on-site.

The concrete-lined shallow basin adjacent to Building 578 is an AFFF evaporation pond. AFFF and associated water tanks, pumps, valves are located in and around building 580. The 49 CES/CEO plumbing and alarm shops maintain and periodically test this equipment in conjunction with the fire department. If an AFFF release occurs (3% in concentrated form, much lesser concentration when activated with water jets), a diversion valve actuates and the floor drains flow to the AFFF evaporation pond. If the evaporation pond overflowed, the foam would flow to the adjacent jurisdictional wetland.

Loading/Unloading Operations

Loading and unloading operations consist of loading materials into an indoor locker, loading oil into a 55-gallon drum outside, and loading outdoor fuel bowsers with JP-8. The potential is minimal for contaminants to reach storm water during indoor activities. When spills occur outdoors at the bowsers and drum, they are immediately cleaned with absorbent material in accordance with the HAFB SPCC Plan. These containers are only loaded and unloaded while on secondary containment. There is minimal potential for these activities to impact storm water.

Outdoor Storage/On-site Waste Disposal, Treatment or Storage Practices

One 55-gallon drum containing used oil is stored outside Building 578. There is limited potential to impact storm water during storage activities.

Fueling Stations

Fueling of aircraft takes place on-site. Pollutants include JP-8 and used oil. When spills occur, on-site spill kits are used to clean up the fuel. There is limited potential to impact storm water during fueling operations.

Vehicle/Aircraft/Equipment Maintenance and/or Cleaning Areas

Aircraft are maintained at this facility. Pollutants are JP-8, oil, grease, and various aircraft cleaners. When spills occur, on-site spill kits are used to clean up pollutants. Spills are cleaned in accordance with the HAFB SPCC Plan. There is limited potential to impact storm water during aircraft maintenance activities.

Liquid Storage Tanks

Fuel bowsers containing JP-8 are kept on-site. Where practical, the bowsers are kept on secondary containment or indoors. There is limited potential for fuel bowsers to impact storm water.

3.9.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.9.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. All portions of the T-38 Operations Facility area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected.

- Outdoor vehicle parking and maintenance areas, as well as the perimeters of Buildings 578 through 580 (for spills and leaks)
- Drum and container storage areas
- Outdoor storage areas
- Fuel bowsers and surrounding area (for spills and leaks)
- Area immediately outside maintenance bays (for spills and leaks draining outside)
- Indoor hazardous materials storage units or accumulation areas
- Any temporary construction areas
- Aircraft fueling areas

A site assessment was conducted in April 2003 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

Inspection checklists for this drainage area are included in Appendix D.

3.9.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.9.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 011 are discussed in Section 4 of this SWPPP.

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3.10 Drainage Area 012

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 within Drainage Area 012 include Tracor Army Air Operations, Army Air Operations Directorate, 46th Test Group, and the 82nd Aerial Target Squadron – Detachment 1.

These facilities within Drainage Area 012 are housed in and around Buildings 1073 (walk-in locker), 1058, 1001, 1079, and 1080; taxiway adjacent to Building 1058; and adjacent to Building 1080.

3.10.1 Drainage Area Description

Drainage Area 012 is located on the eastern side of HAFB (north of the main flight line), and the estimated size of the drainage area is 79 acres (Figures 3-10a and 3-10b). The approximate center of Drainage Area 012 is at 32° 50' 24" latitude and 106° 05' 26" longitude. Drainage Area 012 constitutes a large portion of the developed north area flight line, including several base offices and support services.

3.10.2 Implementation Team for Outfall 12

The primary POCs for this area are:

- 46TG, Bldg 1079, Environmental Coordinator(s), Tracor Army Air Operations
- Detachment 1, 82nd Aerial Target Squadron Environmental Coordinator

3.10.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources located within Drainage Area 012 include fuels (jet fuel, diesel, and unleaded gasoline), vehicle fluids (new and used oil, hydraulic, and lubrication oils), grease, VOCs used as solvents and cleaning agents, paints, paint thinners and strippers, and adhesives.

To fulfill the requirements for the annual site inspection, HAFB conducted compliance site inspections at Drainage Area 012 in October 2007 and April 2008 to identify pollution sources and inventory of on-site chemicals. The results of these site assessments were used to prepare this drainage area SWPPP.

Figure 3-10a. Drainage Area 012

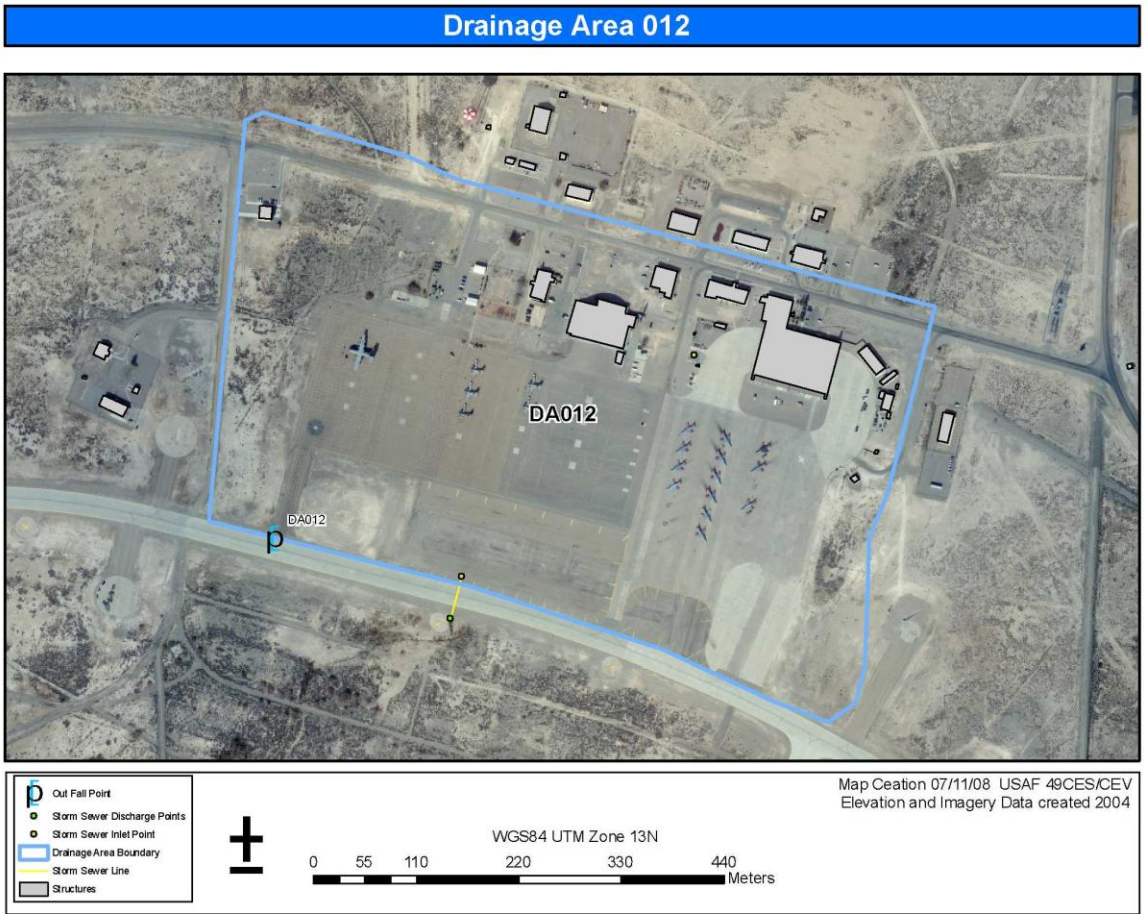
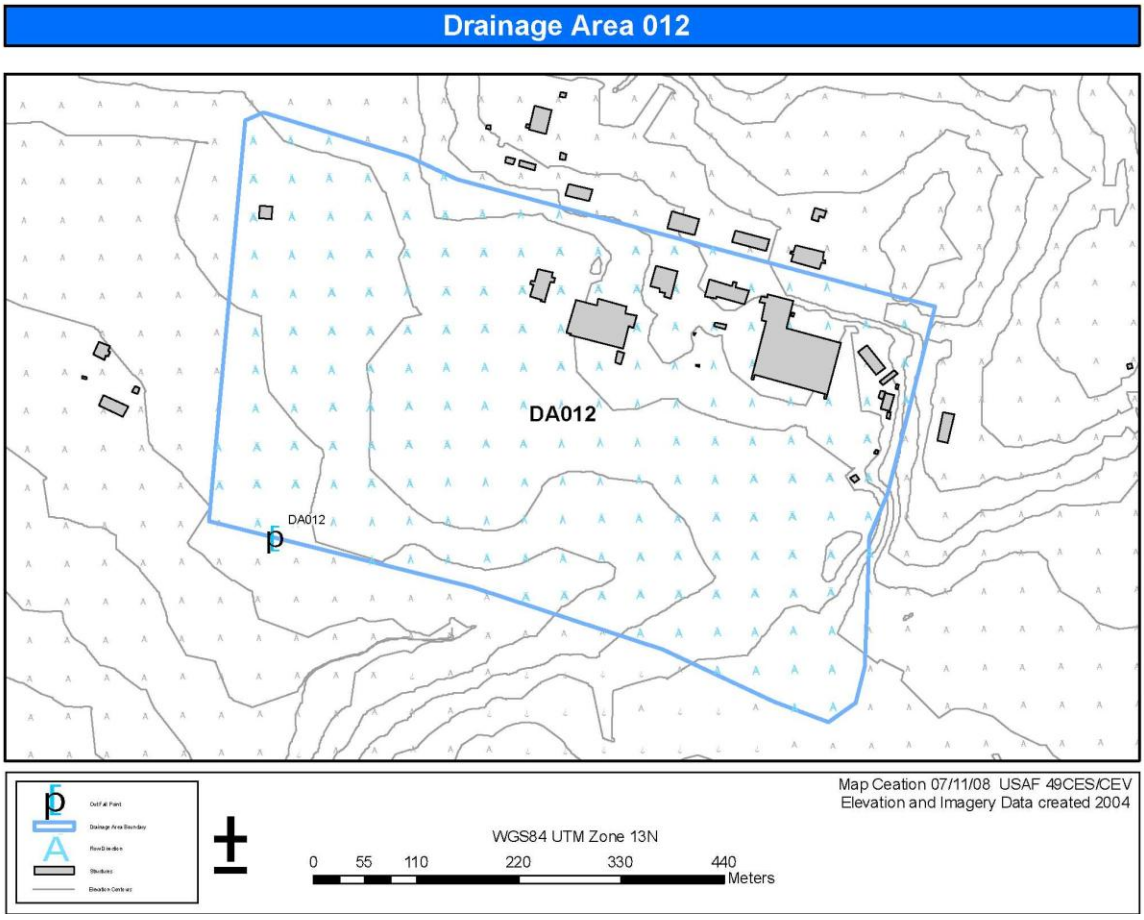


Figure 3-10b. Drainage Area 012



3.10.3.1 Facility Drainage

Drainage Area 012 represents Tracor Army Air Operations, the 82nd Aerial Target Squadron, and the 46th Test Group. Much of the area is paved as streets, runways, taxi-ways, or parking areas. Sheet flow runoff flows south and southeast to the east end of an aircraft taxiway located adjacent to the south sides of Buildings 1079 and 1080. During heavy storm events, water collects at the east end of the taxiway and spills over to an unpaved, isolated depression located adjacent to the east end of the taxiway. Water on the taxiway is left to evaporate, while water that flows to the unpaved, depressed area evaporates or percolates into the ground.

3.10.3.2 Pollutant Identification

The types of pollutants that might be present in storm water flows discharging from Drainage Area 012 include petroleum hydrocarbons associated with F-4 Operations (maintaining and fueling of aircraft performed by 82nd Aerial Target Squadron) and maintenance and fueling of helicopters (performed by Tracor Army Air Operations), and VOCs associated with painting materials, adhesives, or cleaning agents.

Many activities and accumulation and storage areas in Drainage Area 012 are located indoors or in fuel bowsers located outdoors. Therefore, the presence of pollutants in areas where contact with storm water would occur would be limited to small amounts.

3.10.3.3 Material Inventory

Material inventory information for Drainage Area 012 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.10.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 012 which were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly six years prior to the date of the most recent inspection in April 2008.

3.10.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage area.

3.10.3.6 Storm Water Sampling Data

No data is available from Drainage Area 012 since the basin is closed and does not have an outfall sampling point.

3.10.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Drainage 012 are listed by building in Appendix O.

3.10.3.8 Risk Identification and Summary of Pollution Sources

This section describes the major facilities and functional units within Drainage Area 012 that are subject to the MSGP-2008. These facilities and functional units perform industrial activities subject to the MSGP or maintain substantial enough quantities of materials to represent a significant source of pollutants to storm water. The nature of the activities and materials stored at these facilities and sources and types of pollutants of concern are discussed in the sections below.

The Army Air Division (AAD), Detachment 1, 82nd Aerial Target Squadron (ATS), and 46th Test Group for F-4 drone aircraft are located within Drainage Area 012 between Taxiway C and Periphery Road. The AAD, ATS, and Test Group support facilities include numerous buildings and aircraft hangars. Aircraft are stored in hangars or on the taxiway adjacent to the hangars. Maintenance, fueling, and ground support for drone operations are performed at this location.

Test Group, ATS, and AAD aircraft are fueled and waste fuel unloaded on the flight line apron using tanker trucks and/or portable bowsers. Aircraft maintenance operations are performed in the hangars. Aircraft are washed at a washrack located inside Building 1079. The washrack is bermed on three sides and sloped to a drain that routes water through an OWS to the sanitary sewer system.

AGE is kept at various outside locations adjacent to the Test Group, ATS, and AAD buildings and includes fuel bowsers, oil and hydraulic fluid carts, hydraulic mules, air conditioners, Dash-60 electrical/air power units, air compressors, and portable lighting units (lightalls). Fuel bowsers, oil carts, and hydraulic fluid carts containing fluids are kept within concrete-paved and bermed containment pads, except when in use or when functionally empty. The remaining equipment is stored in open concrete-paved areas. Drip pans are placed beneath AGE which are not on secondary containment pads and have the potential to leak fluids. AGE is cleaned on the washrack located adjacent to Building 1080. Wastewater from the washrack is routed through an OWS to the sanitary sewer.

Materials used in maintenance activities, such as paints, lubricants, hydraulic fluid, solvents, detergents, and other cleaners are stored within the associated maintenance facility or outside in designated storage areas. Small quantities of hazardous materials stored inside are kept in metal storage lockers. Materials are stored outside using metal storage lockers, with and without secondary containment. Drummed materials are placed in covered and uncovered areas on secondary containment pallets.

Wastes generated as a result of Test Group, ATS, and AAD operations include waste fuel, used hydraulic fluid, and oil-soaked and other petroleum product-soaked rags and spill pillows. The wastes are temporarily accumulated both inside and outside buildings and hangars. Wastes are accumulated in 55-gallon drums prior to transfer by the DRMO for recycling or off-site disposal. Waste JP-8 is accumulated in two 800-gallon capacity ASTs, while waste gasoline is accumulated in one 500-gallon capacity AST. The three ASTs are located within a concrete-paved and bermed area adjacent to Building 1083. The berm is equipped with a valve to drain uncontaminated storm water.

Loading/Unloading Operations

Loading and unloading of wastes and materials occurs at various facilities and buildings in Drainage Area 012 with the potential to impact storm water. Loading and unloading of wastes occurs within the confines of individual buildings and facilities. Loading and unloading of oils and petroleum fuel products occurs outside the facilities with bowsers and fuel hoses. Spills or leaks during these activities could result in the exposure of petroleum products to storm water. Containment pads are sloped toward sumps where they exist. All facilities institute BMPs such as keeping spill kits nearby loading/unloading areas and cleaning minor spills when they happen. The potential exists for fuels, used and new vehicle fluids from maintenance activities, and cleaning products to contact storm water if spilled during loading or unloading operations.

Outdoor Storage Activities

Waste oil and JP-8 is kept in a storage locker. Limited potential exists for these pollutants to reach storm water. One 2,000-gallon jet fuel truck is stored outside. Unleaded, diesel, JP-8 and used oil fuel bowsers are stored outside. Limited potential exists for these pollutants to reach storm water during storage activities. Helicopter maintenance and AGE maintenance is done on-site. Aircraft fluid or fuel spills (due to maintenance or leaks from aircraft) could result in exposure of pollutants to storm water.

AGE is kept at various outside locations and includes fuel bowsers, oil and hydraulic fluid carts, hydraulic mules, air conditioners, Dash-60 electrical/air power units, air compressors, portable lighting units (lightalls), engine stands, ladders, tow bars, boat tails, trailers, jammers, petroleum product storage racks (mer racks), pylons, and travel pods. Fuel bowsers, oil carts, and hydraulic fluid carts containing fluids are kept within concrete-paved and bermed containment pads, except when in use. The remaining equipment is stored in open concrete-paved areas. Limited potential exists for these activities to adversely affect storm water.

Non-powered AGE, such as ladders, tow bars, trailers, pylons, and travel pods, is constructed of innocuous materials and is not considered a significant contributor of pollutants to storm water runoff. Powered AGE, such electrical/air power units and hydraulic mules, has the potential to leak fuel or hydraulic fluid that could come in contact with storm water.

Drums of JP-8 are stored on the Taxiway adjacent to Building 1058. Empty portable fuel bowsers and oil/hydraulic fluid carts kept in open/uncovered areas could leak or expose minor amounts of residual fluids to storm water.

On-Site Waste Disposal, Treatment, or Storage Practices

Wastes from maintenance operations include waste fuel, used hydraulic fluid and antifreeze, oil-soaked and other petroleum product-soaked rags, and spill pillows. Wastes are accumulated in 55-gallon drums prior to transfer by the DRMO for recycling or off-site disposal. Small quantities of hazardous materials that are stored inside are kept in metal storage lockers. There is minimal potential for these activities to adversely affect storm water.

Three ASTs located adjacent to Building 1083 contain 2,100 gallons of waste JP-8 and gasoline. There is minimal potential for these ASTs and their contents to adversely affect storm water.

Fueling Stations and Fueling Activities

Aircraft are fueled in the taxiway adjacent to Building 1058 and at various locations throughout Drainage Area 012. All fueling activities have the potential to impact storm water (i.e., spills or leaks during aircraft fueling or waste fuel unloading and loading or unloading of fuel bowsers, and oil and hydraulic fluid carts). However, the potential for exposure of these petroleum products to storm water is minimized by the presence and use of spill carts.

Vehicle/Aircraft/Equipment Maintenance and Cleaning

Aircraft maintenance is performed in Buildings 1079 and 1080 or designated facilities. AGE equipment is maintained at Building 1058. Associated pollutants of concern are diesel, gasoline, hydraulic oil, and cleaners/degreasers. Because aircraft maintenance is performed indoors, there is little potential for these activities to adversely affect storm water.

AGE and vehicles are washed at a washrack located inside Building 1079. The washracks are equipped with a water recycling system that also provides for eventual discharge to the sanitary sewer system. Pollutants of concern associated with vehicle and equipment washing activities include detergents and residual fuels and vehicle fluids that might be present on the equipment. There is minimal potential for this washrack to adversely affect storm water.

Liquid Storage Tanks

One jet fuel truck containing 2,000 gallons of JP-8 is stored on-site. Solvents are stored in an AST inside Building 1079. Three ASTs located adjacent to Building 1083 contain 2100 gallons of waste JP-8 and waste gasoline. Numerous fuel bowsers of varying size are used throughout this area to fuel aircraft and equipment as needed at the locations where vehicles are parked or stored. There is minimal potential for these ASTs and their contents to adversely affect storm water.

3.10.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.10.4.1 Site Inspection and Maintenance Procedures

All portions of the Drainage Area 012 area should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected.

- Taxiway area (for erosion and drainage)
- Outdoor aircraft parking and maintenance areas (for spills and leaks)
- Outdoor AGE storage areas (for spills and leaks)
- Liquid storage tank areas (including fuel storage)
- Fueling and defueling stations
- Outdoor hazardous materials storage units or accumulation areas
- Washrack areas
- Drum accumulation areas
- Any temporary construction areas
- Perimeter of facilities in this drainage area

Site assessments were conducted in October 2007 and April 2008 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

Inspection checklists for the drainage area facilities are included in Appendix D.

3.10.4.2 Spill Reporting

Detailed requirements for spill reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.10.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 012 are discussed in Section 4.

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3.11 Drainage Area 013

This section was developed based on information compiled during site assessments and personnel interviews. Industrial facilities subject to the requirements of the MSGP-2008 that are located within Drainage Area 013 includes the Asphalt/Concrete Recycling Center.

3.11.1 Drainage Area Description

Drainage Area 013 is located on the southwestern side of HAFB, and the estimated size of the drainage area is 33 acres (Figures 3-11a and 3-11b). The approximate center of Drainage Area 013 is at 32° 50' 32" latitude and 106° 07' 02" longitude. Drainage Area 013 is undeveloped and contains the Asphalt/Concrete Recycling Center, a stockpile of excavated asphalt and concrete material that is crushed periodically under contract. Although referred to as a "recycling center," this area is more closely aligned with a land application industrial sector (L). Since the closed landfill is the only item within this identified drainage area, storm water BMPs that apply to this area are discussed in this SWPPP.

3.11.2 Implementation Team for Outfall 013

The Asphalt/Concrete Recycling Center CEV contact is the primary POC for this area.

3.11.3 Description of Pollution Sources and Inventory of On-Site Chemicals

The main pollution sources at the facilities located within Drainage Area 013 include concrete and asphalt rubble.

HAFB conducted a compliance site inspection at Drainage Areas 013 in April 2003 to identify pollution sources and inventory on-site chemicals. The results of that site assessment were used to prepare this drainage area SWPPP.

3.11.3.1 Facility Drainage

Drainage Area 013 represents the Asphalt/Concrete Recycling Center, and the area is undeveloped. Storm water within Drainage Area 013 is mostly contained within the asphalt/concrete recycle area with some minor sheet flow to the adjacent ditch to the east of the recycle area.

3.11.3.2 Pollutant Identification

The stockpiles of concrete and asphalt at Drainage Area 013 are outdoors and are not covered. However, no pollutants of concern are typically present in these materials. Therefore, there are no anticipated pollutants in the storm water flows discharging from Drainage Area 013.

Figure 3-11a. Drainage Area 013

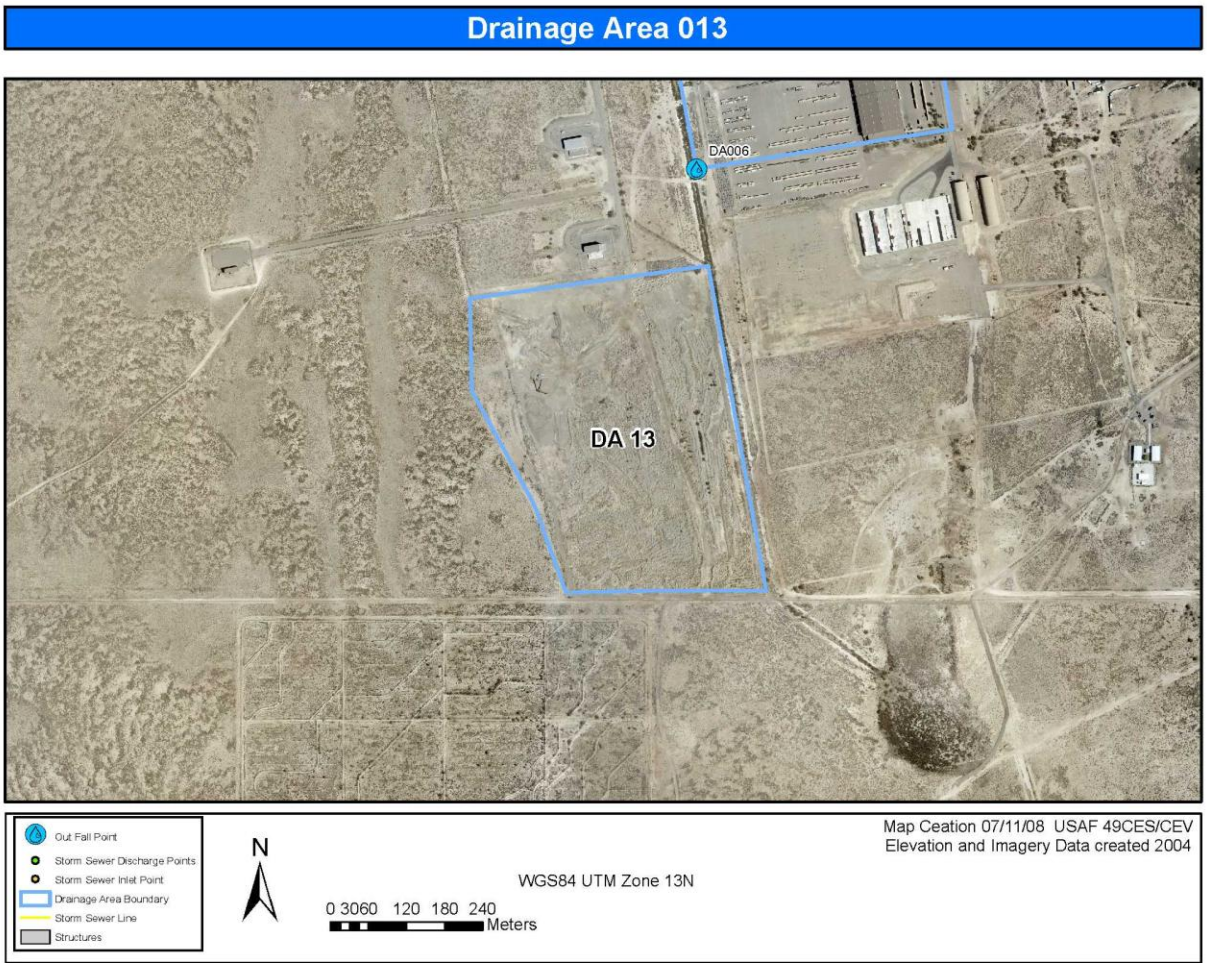
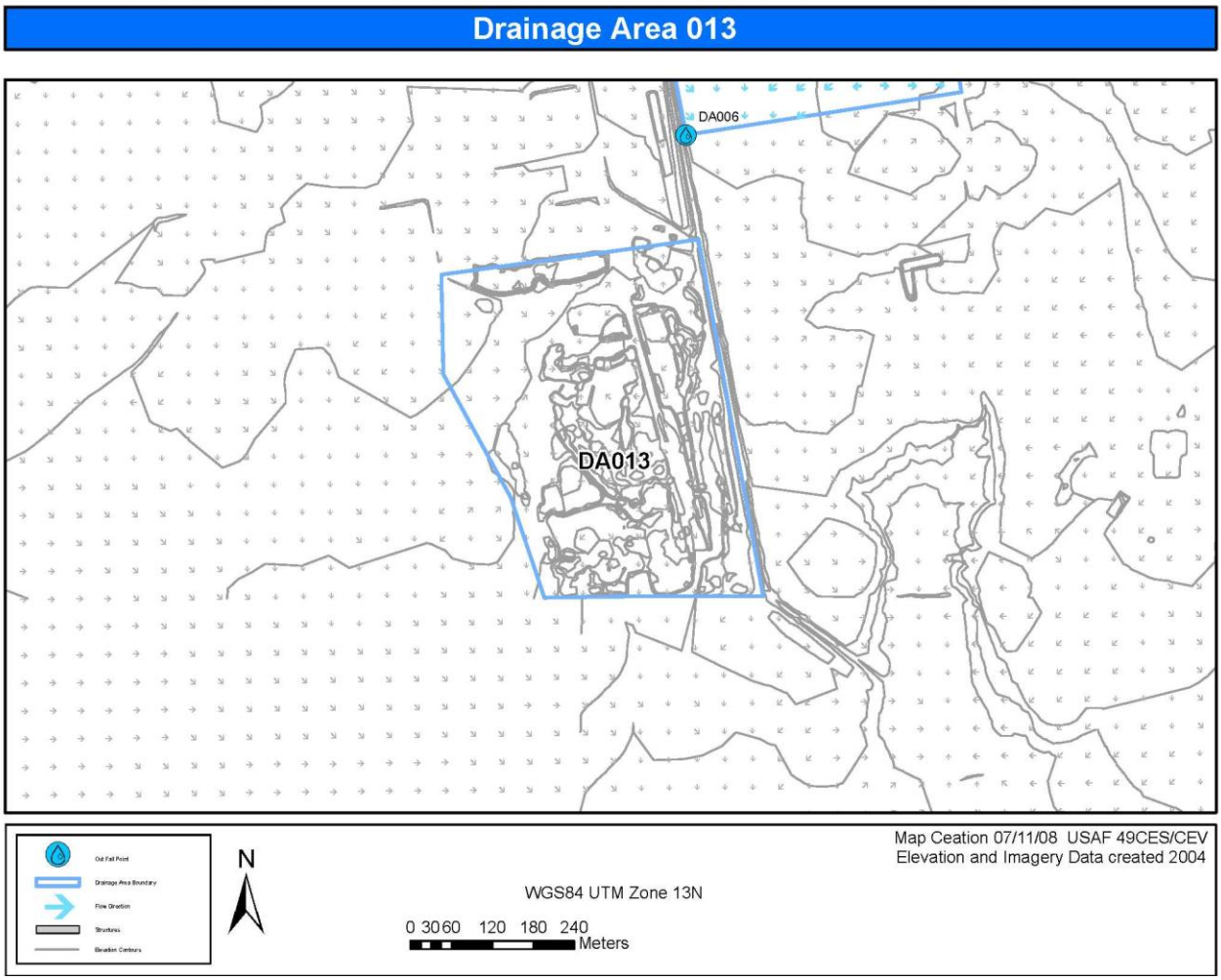


Figure 3-11b. Drainage Area 013



3.11.3.3 Material Inventory

Material inventory information for Drainage Area 013 can be obtained by accessing the EMIS database. This database is maintained by the Environmental Flight in Building 55. This database is maintained and managed by the Hazardous Materials and Hazardous Waste Program Managers.

3.11.3.4 Significant Spills and Leaks

There have been no significant releases of toxic or hazardous pollutants at facilities in Drainage Area 013 which were exposed to precipitation or that otherwise drained to a storm water conveyance since January 2001. This date is roughly six years prior to the date of the most recent inspections in October 2007 and April 2008.

3.11.3.5 Non-Storm Water Discharges

No non-storm water discharges occur within this drainage.

3.11.3.6 Storm Water Sampling Data

Sampling data are provided in Table 3.11-1.

Table 3.11-1 Outfall 013: Storm Water Analyses and Field Data

Date	11/04/2000	09/13/2001
Precipitation (in)	0.35	1.25
pH (S.U.)	7.6	8.5
Oil & Grease(mg/L)	<1	<2
NO_3 & NO_2(mg/L)	0.8	1.06
NH_3(mg/L)	<0.1	0.1
TKN(mg/L)	<0.5	0.7
COD(mg/L)	7	15
TSS(mg/L)	<5	68
Al(mg/L)	0.173	0.1
Cu(mg/L)	<0.004	0.013
Fe(mg/L)	0.106	1.58
Pb(mg/L)	0.006	0.011
Zn (mg/L)	<0.002	0.014

3.11.3.7 Outfall BMPs

The BMPs that apply to HAFB are listed in Table 2.3-5. The BMPs that apply to Outfall 013 are listed by building in Appendix O.

3.11.3.8 Risk Identification and Summary of Pollution Sources

The Asphalt/Concrete Recycling Center is located within Drainage Area 013, west of the main base and across from the 49th Materiel Maintenance Group. Concrete and asphalt materials are stored, eventually crushed, and reused as fill material.

Loading/Unloading Operations and Outdoor Storage Activities

Asphalt and concrete are the only materials loaded and have limited potential to impact storm water.

3.11.4 Comprehensive Site Compliance Evaluation/Inspection

A CSCE will be performed annually. Results will be compiled in Appendix I.

3.11.4.1 Site Inspection and Maintenance Procedures

The drainage area shall be monitored by quarterly outfall inspections. All portions of the Asphalt/Concrete Recycling Center should be inspected and observed for conditions that may negatively impact storm water. At a minimum, the following areas should be inspected:

- Perimeter of the entire landfill (for erosion and drainage)
- Cover of the landfill (experiencing subsidence)

Inspection checklists are included in Appendix D.

A site assessment was conducted in October 2007 to meet the annual site compliance evaluation requirements. At that time, no issues of concern were noted at this facility.

3.11.4.2 Spill Reporting

Detailed requirements for accident reporting are provided in the *Hazardous Material Plan* for HAFB and in Appendix H.

3.11.4.3 Monitoring and Reporting Requirements

Monitoring requirements for Drainage Area 013 are discussed in Section 4.

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4 MONITORING PLAN FOR HAFB STORM WATER POLLUTION PREVENTION

4.1 Introduction

Storm water sampling will be accomplished at HAFB in accordance with requirements of the NPDES Multi-Sector Storm Water General Permit for Industrial Activities (MSGP-2008). Visual inspections are required during years 1 through 5 of the permit and must be conducted quarterly for all discharge points. Benchmark analytical monitoring is required quarterly for the first year of the permit. Further sampling will be evaluated as described in section 4.4. There are no additional State effluent limits or special monitoring requirements at this time (Appendix B). The permit years are defined as follows:

- Year 1: January 1, 2009 through December 30, 2009
- Year 2: January 1, 2010 through December 30, 2010
- Year 3: January 1, 2011 through December 30, 2011
- Year 4: January 1, 2012 through December 30, 2012
- Year 5: January 1, 2013 through December 30, 2013

The industrial activities co-located on HAFB fall into three individual industrial sectors and are outlined below:

- **Sector S**: Air Transportation Facilities
  - Tracor
  - Army Air Operations Directorate
  - 46th Test Group
  - Detachment 1, 82nd Aerial Target Squadron
  - Test Track Support Facilities
  - Materiel Maintenance Group, Bare Base
  - Non-Destructive Inspections (NDI)
  - Phillips Balloon Laboratory
  - Sound Suppression, Hush Houses
  - Army Fueling Station
  - Fuel Testing Facility
  - Raptor Squadron
  - Civil Engineering
  - Base Supply
  - Test Cell
  - Main Flight Line
  - Base Transportation
  - Newtec Vehicles
  - Heavy Equipment Repair
  - Vehicle Maintenance, Auto Craft
  - Fuels Management Flight

- **Sector K**: Hazardous Waste Treatment, Storage, or Disposal Facilities
  - Defense Reutilization and Marketing Office (Building 113)

- 90 Day Hazardous waste storage facility (Building149)

- **Sector T**: Treatment Works
  - Wastewater Treatment Plant

The locations of the various industrial facilities are shown Appendix G and in the individual Drainage Area maps in Section 3.

4.2 Sample/Monitoring Parameters

Table 4-2.1 specifies visual monitoring requirements for all outfalls as well as sector-specific benchmark chemical parameters required to be analyzed at certain outfalls.

One of the industrial activities at HAFB is exempt from benchmark monitoring requirements, as outlined below:

- The industrial activities on HAFB conducted under Sector "S" use less than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or less than 100 tons of urea on an average annual basis, these activities are exempt from the federal benchmark and numeric limitation monitoring requirements. Documentation regarding the amount of deicing chemicals used annually on HAFB is maintained Appendix H.

- The EPA has published benchmark concentrations for storm water pollutants of concern. These values were established to allow a permittee to determine the effectiveness of their SWPPP in controlling the discharge of pollutants to receiving waters. The benchmark concentrations that re applicable to HAFB (i.e., Sector K) are provided in Table 4-2-2.

Table 4.2-1 Visual and Benchmark Requirements for Outfalls

Sector		Visual	NH3	COD	Total CN	TR As	TR Cd	TR Pb	TR Mg	TR Hg	TR Se	TR Ag	*Hardness
K		X	X	X	X	X	X	X	X	X	X	X	*X
S		X											
T		X											
Outfall	Sectors												
1	S	X											
2	S,K	X	X	X	X	X	X	X	X	X	X	X	*X
3	S	X											
4	S	X											
5	S												
6	S	X											
8	S	X											
9	S,T	X											
11	S	X											
12**	S												
13	S	X											
*Required to establish benchmark levels as defined in Table 4-2 and 4-3 below. ** Isolated depressions not delineated as waters of the US; implement BMPs but sampling not required													

Table 4.2-2 National Pollutant Discharge Elimination System

Cutoff Concentrations

Chemical Parameter	Regulatory Agency	Cutoff Concentration/*Adjusted Level (mg/L)
Total recoverable magnesium	EPA	0.0636
Total recoverable cadmium*	EPA	0.0159/*
Total recoverable arsenic	EPA	0.16854
Total recoverable silver*	EPA	0.0318/*
Total cyanide	EPA	0.0636
Total recoverable lead*	EPA	0.0816/*
Total recoverable mercury	EPA	0.0024
Total recoverable selenium	EPA	0.2385
Ammonia	EPA	19.0
Chemical oxygen demand	EPA	120.0
Subsector K1. ALL - Industrial Activity Code "HZ" (Note: permit coverage limited in some States). Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A		

Parameter benchmark values from U.S. EPA (2008).

*See Below

Notes:

mg/L = milligrams per liter.

*The benchmark values of the following metals will be adjusted based on water hardness. Hardness will be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

Water Hardness Range	**Cadmium** (mg/L)	**Lead** (mg/L)	**Silver** (mg/L)
0-25 mg/L	0.0005	0.014	0.0007
25-50 mg/L	0.0008	0.023	0.0007
50-75 mg/L	0.0013	0.045	0.0017
75-100 mg/L	0.0018	0.069	0.0030
100-125 mg/L	0.0023	0.095	0.0046
125-150 mg/L	0.0029	0.122	0.0065
150-175 mg/L	0.0034	0.151	0.0087
175-200 mg/L	0.0039	0.182	0.0112
200-225 mg/L	0.0045	0.213	0.0138
225-250 mg/L	0.0050	0.246	0.0168
250+ mg/L	0.0053	0.262	0.0183

4.3 Monitoring Periods

The MSGP language stipulates that storm water monitoring samples shall be collected quarterly for visual monitoring during each year of the permit. Therefore, HAFB is required to collect one sample at each outfall during the quarterly periods shown below:

- Quarter 1: January 1 through March 31
- Quarter 2: April 1 through June 30
- Quarter 3: July 1 through September 30
- Quarter 4: October 1 through December 31

4.4 Sample Collection

HAFB receives inconsistent and sporadic precipitation from localized thundershowers. It is common that rainfall does not occur throughout the base, even though precipitation is recorded at the base weather

station. Thus, during a storm event, storm water discharges do not always occur from all outfalls. Therefore, automatic samplers have been installed at all 11 outfalls to enable collection of storm water samples within regulatory time constraints due to the rainfall events at HAFB.

Sample collection will be conducted under the U.S. EPA protocol where applicable and as stipulated in the monitoring language in the MSGP-2008. In general, storm water monitoring will involve the following:

4.4.1 Visual Assessments:

Visual assessment will be made:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from your site; and

Visual inspection of the sample will include the following water quality characteristics:

- Color;

- Odor;

- Clarity;

- Floating solids;

- Settled solids;

- Suspended solids;

- Foam;

- Oil sheen; and

- Other obvious indicators of storm water pollution.

The results of the visual assessments will be documented on the inspection sheets and maintained in Appendix K.

4.4.2 Benchmark Analytical Monitoring

Benchmark analytical monitoring is required quarterly for the first year of the permit.

- Collect a minimum of one grab sample for visual examination from each outfall during each quarterly monitoring period. The sample is to be collected from a discharge resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event (the required 72-hour storm event interval may be waived under certain circumstances). The grab sample is to be taken during the first 30 minutes of the discharge and not longer than 1 hour after the discharge. Storm water discharge samples for visual examination will be collected with the installed automatic samplers
- Submit collected samples for the laboratory analyses as outlined in Table 4-1 during applicable permit years. (Reference 40CFR136)

4.4.3 Additional Sampling

Additional sampling will be evaluated by the following criteria:

If after collection of 4 quarterly samples, the average of the 4 monitoring values for any parameter does not exceed the benchmark, you have fulfilled your monitoring requirements for that parameter for the permit term. For averaging purposes, use a value of zero for any individual sample parameter, analyzed using procedures consistent with Part 6.2.1.1 of the MSGP 2008 which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

If after collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter exceeds the benchmark, you must, in accordance with Part 3.2 of the MSGP, review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

•Make the necessary modifications and continue quarterly monitoring until you have completed 4 additional quarters of monitoring for which the average does not exceed the benchmark; or

•Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations in Parts 2 of this permit, in which case you must continue monitoring once per year. You must also document your rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with your SWPPP. You must also notify EPA of this determination in your next benchmark monitoring report.

In accordance with Part 3.2 of the MSGP 2008, you must review your control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 quarters of monitoring data, if an exceedance of the 4 quarter average is mathematically certain. If after modifying your control measures and conducting 4 additional quarters of monitoring, your average still exceeds the benchmark (or if an exceedance of the benchmark by the 4 quarter average is mathematically certain prior to conducting the full 4 additional quarters of monitoring),you must again review your control measures and take one of the two actions above.

- Submit collected samples for the laboratory analyses as outlined in Table 4-1 during applicable permit years. (Reference 40CFR136)

- Maintain the storm water sampling unit according to manufacturer's specifications to ensure proper operation and collection of storm water samples.

5 REPORTING AND RECORDKEEPING

5.1 Introduction

All monitoring data collected pursuant to Section 4.0 of this SWPPP must be submitted to EPA using EPA's online eNOI system (www.epa.gov/npdes/eNOI) no later than 30 days (email date or postmark date) after you have received your complete laboratory results for all monitored outfalls for the reporting period.

If paper reporting forms are used they must be submitted by the same deadline to the address identified in Section 5.1.6. For paper reporting, use the MSGP Discharge Monitoring Report (DMR**)** in Appendix L. For benchmark monitoring, submit sampling results to the EPA no later than 30 days after receiving laboratory results for each quarter that benchmark samples are collected. If multiple samples are collected in a single quarter (e.g., due to adverse weather conditions, climates with irregular storm water runoff, or areas subject to snow), submit all sampling results to EPA within 30 days of receipt of the laboratory results.

5.2 Annual Report

HAFB will submit an annual report to EPA that includes the finding(s) from the comprehensive site inspection and all associated corrective action documentation. If corrective action is not yet completed at the time of submission of this annual report, a description and status of any outstanding corrective action(s) will be noted.

The following information will be included in the annual report:

- Facility name
- NPDES permit tracking number
- Facility physical address
- Contact person name, title, and phone number

This report will be submitted using the Annual Reporting Form provided as Appendix I and within 45 days (postmark date) after conducting the comprehensive site inspection.

5.3 Exceedance Report for Numeric Effluent Limits

There are currently no activities with Numeric Effluent Limitations at HAFB.

5.4 Additional Reporting

Copies of additional reports will be maintained in Appendix M. When applicable, you must submit the following reports to the appropriate EPA Regional Office listed in Part 5.1.6:

- 24-hour reporting (see Appendix B, Subsection 12.F of the 2008 MSGP) - You must report any noncompliance issues which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances;

- 5-day follow-up reporting to the 24 hour reporting (see Appendix B, Subsection 12.F of the 2008 MSGP) - A written submission must also be provided within five days of the time you become aware of the circumstances;

- Reportable quantity spills - You must provide notification, as soon as you have knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or inexcess of a reportable quantity.

When applicable, you must submit the following reports to EPA Headquarters at the appropriate address in Part 5.1.6:

- Planned changes (see Appendix B, Subsection 12.A of the 2008 MSGP) – You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;

- Anticipated noncompliance (see Appendix B, Subsection 12.B of the 2008 MSGP) – You must give advance notice to EPA of any planned changes in the permitted facility or activity which you anticipate will result in noncompliance with permit requirements;

- Transfer of ownership and/or operation – You must submit a complete and accurate NOI in accordance with the requirements of Appendix G of the 2008 MSGP and by the deadlines specified in Table 1-2 of the 2008 MSGP;

- Compliance schedules (see Appendix B, Subsection 12.F of the 2008 MSGP) - Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;

- Other noncompliance (see Appendix B, Subsection 12.G of the 2008 MSGP) - You must report all instances of noncompliance not reported in your monitoring report (pursuant to Part 5.1.7), compliance schedule report, or 24-hour report at the time monitoringreports are submitted; and

- Other information (see Appendix B, Subsection 12.H of the 2008 MSGP) – You must promptly submit facts or information if you become aware that you failed to submit relevant facts in your NOI, or that you submitted incorrect information in your NOI or in any report.

5.5 Recordkeeping

HAFB will retain a copy of this SWPPP including all modifications, documentation related to corrective actions, reports, ccertifications, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date of coverage under this permit until it expires or is terminated (Appendix N).

5.6 Addresses

Notices of Intent and Notices of Termination should be submitted using EPA's eNOI system (www.epa.gov/npdes/eNOI) or sent to EPA's NOI Center. Paper copies of any reports not otherwise submitted electronically via EPA's eNOI system (www.epa.gov/npdes/eNOI) must be sent to one of the following addresses:

Via U.S. mail:

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Mail Code 4203M, ATTN: MSGP Reports
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Or Via Overnight/Express Delivery:

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Room 7420, ATTN: MSGP Reports
1201 Constitution Avenue, NW
Washington, D.C. 20004
Phone number: 202-564-9545

All other written correspondence concerning discharges must be sent to the address of the appropriate EPA Regional Office listed below:

U.S. EPA Region 6
Stormwater Coordinator
Compliance Assurance and Enforcement Division (6EN-WC)
EPA SW MSGP
P.O. Box 50625
Dallas, TX 75205

5.7 Permit Year Reporting Requirements

The reporting requirements for each permit year are detailed below:

Permit Year 1: 1 January 09 – 31 December 09

Type: Visual monitoring
Frequency: Quarterly
Data: Visual inspection reports
Report to: Maintain with SWPPP

Type: Comprehensive site inspection (Sec 5.2)
Frequency: Annual
Data: Results and corrective action
Report to: Address in Section 5.6
Deadline: Within 45 days (postmark date) after conducting the comprehensive site inspection

Type: Analytical benchmark monitoring
Frequency: Quarterly
Data: DMR-send laboratory results within 30 days of receipt
Report to: Electronic or address in Section 5.6

Type: Additional reports as defined in Section 5.4
Frequency: As required in Section 5.4
Data: See Section 5.4
Report to: Address in Section 5.6
Deadline: As required in Section 5.4

Permit Year 2: 1 January 10 – 31 December 10

Type: Visual monitoring
Frequency: Quarterly
Data: Visual inspection reports
Report to: Maintain with SWPPP

Type: Comprehensive site inspection (Section 5.2)
Frequency: Annual
Data: Results and corrective action
Report to: Address in Section 5.6
Deadline: Within 45 days (postmark date) after conducting the comprehensive site inspection

Type: Analytical benchmark monitoring **(if required by Section 4.0)**
Frequency: Quarterly
Data: DMR-send laboratory results within 30 days of receipt
Report to: Electronic or address in Section 5.6

Type: Additional reports as defined in Section 5.4
Frequency: As required in Section 5.4
Data: See Section 5.4
Report to: Address in Section 5. 6
Deadline: As Required in Section 5.4

Permit Year 3: 1 January 11 – 31 December 11

Type: Visual monitoring
Frequency: Quarterly
Data: Visual inspection reports
Report to: Maintain with SWPPP

Type: Comprehensive site inspection (Section 5.2)
Frequency: Annual
Data: Results and corrective action
Report to: Address in Section 5.6
Deadline: Within 45 days (postmark date) after conducting the comprehensive site inspection

Type: Analytical benchmark monitoring **(if required by Section 4.0)**
Frequency: Quarterly
Data: DMR-send laboratory results within 30 days of receipt
Report to: Electronic or address in Section 5.6

Type: Additional Reports as defined in Section 5.4
Frequency: As required in Section 5.4
Data: See Section 5.4
Report to: Address in Section 5.6
Deadline: As required in Section 5.4

Permit Year 4: 1 January 12 – 31 December 12

Type: Visual monitoring
Frequency: Quarterly
Data: Visual inspection reports
Report to: Maintain with SWPPP

Type: Comprehensive site inspection (Section 5.2)
Frequency: Annual
Data: Results and corrective action
Report to: Address in Section 5.6
Deadline: Within 45 days (postmark date) after conducting the comprehensive site inspection

Type: Analytical Benchmark Monitoring **(if required by Section 4.0)**
Frequency: Quarterly
Data: DMR-Send Lab results within 30 days of receipt
Report to: Electronic or address in Section 5.6

Type: Additional reports as defined in Section 5.4
Frequency: As required in Section 5.4
Data: See Section 5.4
Report to: Address in Section 5.6
Deadline: As Required in Section 5.4

Permit Year 5: 1 January 13 – 31 December 13

Type: Visual monitoring
Frequency: Quarterly
Data: Visual inspection reports
Report to: Maintain with SWPPP

Type: Comprehensive site inspection (Section 5.2)
Frequency: Annual
Data: Results and corrective action
Report to: Address in Section 5.6
Deadline: Within 45 days (postmark date) after conducting the comprehensive site inspection

Type: Analytical benchmark monitoring **(if required by Section 4.0)**
Frequency: Quarterly
Data: DMR-Send Lab results within 30 days of receipt
Report to: Electronic or address in Section 5.6

Type: Additional reports as defined in Section 5.4
Frequency: As required in Section 5.4
Data: See Section 5.4.
Report to: Address in Section 5.6
Deadline: As required in Section 5.4

United States Environmental Protection Agency (EPA)
National Pollutant Discharge Elimination System (NPDES)

MULTI-SECTOR GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY (MSGP)

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 *et seq.*), operators of stormwater discharges associated with industrial activity located in an area identified in Appendix C where EPA is the permitting authority are authorized to discharge to waters of the United States in accordance with the eligibility and Notice of Intent (NOI) requirements, effluent limitations, inspection requirements, and other conditions set forth in this permit. This permit is structured as follows:

- general requirements that apply to all facilities are found in Parts 1 through 7;
- industry sector-specific requirements are found in Part 8; and
- specific requirements that apply in individual States and Indian Country Lands are found in Part 9.

The Appendices (A through K) contain additional permit conditions that apply to all operators covered under this permit.

This permit becomes effective on September 29, 2008.

This permit and the authorization to discharge expire at midnight, September 29, 2013.

Robert W. Varney, Regional Administrator
EPA Region 1

Carl-Axel P. Soderberg, Division Director, Caribbean Environmental Protection Division
EPA Region 2

Jon M. Capacasa, Director, Water Protection Division
EPA Region 3

Timothy C. Henry, Acting Director, Water Division
EPA Region 5

Miguel I. Flores, Director, Water Quality Protection Division
EPA Region 6

Alexis Strauss, Director, Water Division
EPA Region 9

Michael Gearheard, Director, Office of Water and Watersheds
EPA Region 10

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart A – Sector A – Timber Products.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.A.1 Covered Stormwater Discharges.

The requirements in Subpart A apply to stormwater discharges associated with industrial activity from Timber Products facilities as identified by the SIC Codes specified under Sector A in Table D-1 of Appendix D of the permit.

8.A.2 Limitation on Coverage

8.A.2.1 *Prohibition of Discharges.* (See also Part 1.1.4) Not covered by this permit: stormwater discharges from areas where there may be contact with the chemical formulations sprayed to provide surface protection. These discharges must be covered by a separate NPDES permit.

8.A.2.2 *Authorized Non-Stormwater Discharges.* (See also Part 1.1.3) Also authorized by this permit, provided the non-stormwater component of the discharge is in compliance with the requirements in Part 2.1.2 (Non-Numeric Effluent Limits): discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage.

8.A.3 Additional Technology-Based Effluent Limits.

8.A.3.1 *Good Housekeeping.* (See also Part 2.1.2.2) In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

8.A.4 Additional SWPPP Requirements.

8.A.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

8.A.4.2 *Inventory of Exposed Materials.* (See also Part 5.1.3.2) Where such information exists, if your facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in your SWPPP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with stormwater runoff.

8.A.4.3 *Description of Stormwater Management Controls.* (See also Part 5.1.4) Document measures implemented to address the following activities and sources: log, lumber, and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If your facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

8.A.5 Additional Inspection Requirements.

See also Part 4.1. If your facility performs wood surface protection and preservation activities, inspect processing areas, transport areas, and treated wood storage areas monthly to assess the usefulness of practices to minimize the deposit of treatment chemicals on unprotected soils and in areas that will come in contact with stormwater discharges.

8.A.6 Sector-Specific Benchmarks

Table 8.A-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.A-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector A1. General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Zinc[1]	Hardness Dependent
Subsector A2. Wood Preserving (SIC 2491)	Total Arsenic	0.15 mg/L
	Total Copper[1]	Hardness Dependent
Subsector A3. Log Storage and Handling (SIC 2411)	Total Suspended Solids (TSS)	100 mg/L
Subsector A4. Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120.0 mg/L
	Total Suspended Solids (TSS)	100.0 mg/L

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Copper (mg/L)	Zinc (mg/L)
0-25 mg/L	0.0038	0.04
25-50 mg/L	0.0056	0.05
50-75 mg/L	0.0090	0.08
75-100 mg/L	0.0123	0.11
100-125 mg/L	0.0156	0.13
125-150 mg/L	0.0189	0.16
150-175 mg/L	0.0221	0.18
175-200 mg/L	0.0253	0.20
200-225 mg/L	0.0285	0.23
225-250 mg/L	0.0316	0.25
250+ mg/L	0.0332	0.26

8.A.7 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.A-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.A-2[1]		
Industrial Activity		
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	pH	6.0 - 9.0 s.u
	Debris (woody material such as bark, twigs, branches, heartwood, or sapwood)	No discharge of debris that will not pass through a 2.54-cm (1-in.) diameter round opening

[1] Monitor annually.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart B – Sector B – Paper and Allied Products.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.B.1 Covered Stormwater Discharges.

The requirements in Subpart B apply to stormwater discharges associated with industrial activity from Paper and Allied Products Manufacturing facilities, as identified by the SIC Codes specified under Sector B in Table D-1 of Appendix D of the permit.

8.B.2 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.B-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector B1. Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.C.1 Covered Stormwater Discharges.

The requirements in Subpart C apply to stormwater discharges associated with industrial activity from Chemical and Allied Products Manufacturing, and Refining facilities, as identified by the SIC Codes specified under Sector C in Table D-1 of Appendix D of the permit.

8.C.2 Limitations on Coverage.

8.C.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following are not covered by this permit: non-stormwater discharges containing inks, paints, or substances (hazardous, nonhazardous, etc.) resulting from an onsite spill, including materials collected in drip pans; washwater from material handling and processing areas; and washwater from drum, tank, or container rinsing and cleaning.

8.C.3 Sector-Specific Benchmarks

Table 8.C-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table 8.C-1.		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector C1. Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Lead[1]	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc[1]	Hardness Dependent
	Phosphorus	2.0 mg/L
Subsector C2. Industrial Inorganic Chemicals (SIC 2812-2819)	Total Aluminum	0.75 mg/ L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector C3. Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Zinc[1]	Hardness Dependent
Subsector C4. Plastics, Synthetics, and Resins (SIC 2821-2824)	Total Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Lead** (mg/L)	**Zinc** (mg/L)
0-25 mg/L	0.014	0.04
25-50 mg/L	0.023	0.05
50-75 mg/L	0.045	0.08
75-100 mg/L	0.069	0.11
100-125 mg/L	0.095	0.13
125-150 mg/L	0.122	0.16
150-175 mg/L	0.151	0.18
175-200 mg/L	0.182	0.20
200-225 mg/L	0.213	0.23
225-250 mg/L	0.246	0.25
250+ mg/L	0.262	0.26

8.C.4 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.C-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.C-2[1]		
Industrial Activity	**Parameter**	**Effluent Limit**
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Total Phosphorus (as P)	105.0 mg/L, daily maximum
		35 mg/L, 30-day avg.
	Fluoride	75.0 mg/L, daily maximum
		25.0 mg/L, 30-day avg.

[1] Monitor annually.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.D.1 Covered Stormwater Discharges.

The requirements in Subpart D apply to stormwater discharges associated with industrial activity from Asphalt Paving and Roofing Materials and Lubricant Manufacturing facilities, as identified by the SIC Codes specified under Sector D in Table D-1 of Appendix D of the permit.

8.D.2 Limitations on Coverage.

The following stormwater discharges associated with industrial activity are not authorized by this permit (See also Part 1.1.4)

8.D.2.1 Discharges from petroleum refining facilities, including those that manufacture asphalt or asphalt products, that are subject to nationally established effluent limitation guidelines found in 40 CFR Part 419 (Petroleum Refining); or

8.D.2.2 Discharges from oil recycling facilities; or

8.D.2.3 Discharges associated with fats and oils rendering.

8.D.3 Sector-Specific Benchmarks

Table 8.D-1 identifies benchmarks that apply to the specific subsectors of Sector D. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.D-1.

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector D1. Asphalt Paving and Roofing Materials (SIC 2951, 2952)	Total Suspended Solids (TSS)	100 mg/L

8.D.4 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.D-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.D-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg.
	pH	6.0 - 9.0 s.u.
	Oil and Grease	15.0 mg/L, daily maximum
		10 mg/L, 30-day avg.

[1]Monitor annually.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.E.1 Covered Stormwater Discharges.

The requirements in Subpart E apply to stormwater discharges associated with industrial activity from Glass, Clay, Cement, Concrete, and Gypsum Products facilities, as identified by the SIC Codes specified under Sector E in Table D-1 of Appendix D of the permit.

8.E.2 Additional Technology-Based Effluent Limits.

8.E.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2) With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in stormwater from paved portions of the site that are exposed to stormwater. Consider sweeping regularly or using other equivalent measures to minimize the presence of these materials. Indicate in your SWPPP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. You must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to stormwater, where practicable, by storing these materials in enclosed silos, hoppers, or buildings, or under other covering.

8.E.3 Additional SWPPP Requirements.

8.E.3.1 *Drainage Area Site Map*. (See also Part 5.1.2) Document in the SWPPP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

8.E.3.2 *Certification.* (See also Part 5.1.3.4) For facilities producing ready-mix concrete, concrete block, brick, or similar products, include in the non-stormwater discharge certification a description of measures that ensure that process waste waters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with NPDES requirements or are recycled.

8.E.4 Sector-Specific Benchmarks.

Table 8.E-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.E-1.		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Cutoff Concentration**
Subsector E1. Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
Subsector E2. Concrete and Gypsum Product Manufacturers (SIC 3271-3275)	Total Suspended Solids (TSS)	100 mg/L
	Total Iron	1.0 mg/L

8.E.5 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.E-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.E-2[1]		
Industrial Activity	**Parameter**	**Effluent Limit**
Discharges from material storage piles at cement manufacturing facilities	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 - 9.0 s.u.

[1]Monitor annually.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart F – Sector F – Primary Metals.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.F.1 Covered Stormwater Discharges.

The requirements in Subpart F apply to stormwater discharges associated with industrial activity from Primary Metals facilities, as identified by the SIC Codes specified under Sector F in Table D-1 of Appendix D of the permit.

8.F.2 Additional Technology-Based Effluent Limits

8.F.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2) As part of your good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

8.F.3 Additional SWPPP Requirements.

8.F.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to waters of the United States.

8.F.3.2 *Inventory of Exposed Material.* (See also Part 5.1.3.2) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible

8.F.4 Additional Inspection Requirements. (See also Part 4.1) As part of conducting your quarterly routine facility inspections (Part 4.1), address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks,

corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Consider monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

8.F.5 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.F-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Subsector F1. Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
	Total Zinc[1]	Hardness Dependent
Subsector F2. Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Copper[1]	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc[1]	Hardness Dependent
Subsector F3. Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Total Copper[1]	Hardness Dependent
	Total Zinc[1]	Hardness Dependent
Subsector F4. Nonferrous Foundries (SIC 3363-3369)	Total Copper[1]	Hardness Dependent
	Total Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Copper (mg/L)	Zinc (mg/L)
0-25 mg/L	0.0038	0.04
25-50 mg/L	0.0056	0.05
50-75 mg/L	0.0090	0.08
75-100 mg/L	0.0123	0.11
100-125 mg/L	0.0156	0.13
125-150 mg/L	0.0189	0.16
150-175 mg/L	0.0221	0.18
175-200 mg/L	0.0253	0.20
200-225 mg/L	0.0285	0.23
225-250 mg/L	0.0316	0.25
250+ mg/L	0.0332	0.26

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart G – Sector G – Metal Mining.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.G.1 Covered Stormwater Discharges.

The requirements in Subpart G apply to stormwater discharges associated with industrial activity from Metal Mining facilities, including mines abandoned on Federal lands, as identified by the SIC Codes specified under Sector G in Table D-1 of Appendix D. Coverage is required for metal mining facilities that discharge stormwater contaminated by contact with, or that has come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the operation.

8.G.1.1 Covered Discharges from Inactive Facilities. All stormwater discharges.

8.G.1.2 Covered Discharges from Active and Temporarily Inactive Facilities. Only the stormwater discharges from the following areas are covered: waste rock and overburden piles if composed entirely of stormwater and not combining with mine drainage; topsoil piles; offsite haul and access roads; onsite haul and access roads constructed of waste rock, overburden, or spent ore if composed entirely of stormwater and not combining with mine drainage; onsite haul and access roads not constructed of waste rock, overburden, or spent ore except if mine drainage is used for dust control; runoff from tailings dams or dikes when not constructed of waste rock or tailings and no process fluids are present; runoff from tailings dams or dikes when constructed of waste rock or tailings and no process fluids are present, if composed entirely of stormwater and not combining with mine drainage; concentration building if no contact with material piles; mill site if no contact with material piles; office or administrative building and housing if mixed with stormwater from industrial area; chemical storage area; docking facility if no excessive contact with waste product that would otherwise constitute mine drainage; explosive storage; fuel storage; vehicle and equipment maintenance area and building; parking areas (if necessary); power plant; truck wash areas if no excessive contact with waste product that would otherwise constitute mine drainage; unreclaimed, disturbed areas outside of active mining area; reclaimed areas released from reclamation requirements prior to December 17, 1990; and partially or inadequately reclaimed areas or areas not released from reclamation requirements.

8.G.1.3 Covered Discharges from Exploration and Construction of Metal Mining and/or Ore Dressing Facilities. All stormwater discharges.

8.G.1.4 Covered Discharges from Facilities Undergoing Reclamation. All stormwater discharges.

8.G.2 Limitations on Coverage.

8.G.2.1 *Prohibition of Stormwater Discharges.* Stormwater discharges not authorized by this permit: discharges from active metal mining facilities that are subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

NOTE: Stormwater runoff from these sources are subject to 40 CFR Part 440 if they are mixed with other discharges subject to Part 440. In this case, they are not eligible for coverage under this permit. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless they: (1) drain naturally (or are intentionally diverted) to a point source; and (2) combine with "mine drainage" that is otherwise regulated under the Part 440 regulations. For such sources, coverage under this permit would be available if the discharge composed entirely of stormwater does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, and meets the other eligibility criteria contained in Part 1.2 of the permit. Permit applicants bear the initial responsibility for determining if they are eligible for coverage under this permit, or must seek coverage under another NPDES permit. EPA recommends that permit applicants contact the relevant NPDES permit issuance authority for assistance to determine the nature and scope of the "active mining area" on a mine-by-mine basis, as well as to determine the appropriate permitting mechanism for authorizing such discharges.

8.G.2.2 *Prohibition of Non-Stormwater* Discharges. Not authorized by this permit: adit drainage, and contaminated springs or seeps discharging from waste rock dumps that do not directly result from precipitation events (see also the standard Limitations on Coverage in Part 1.1.4).

8.G.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

8.G.3.1 *Mining operation* - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

8.G.3.2 *Exploration phase* - Entails exploration and land disturbance activities to determine the viability of a site. The exploration phase is not considered part of “mining operations.”

8.G.3.3 *Construction phase* - Includes the building of site access roads and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of “mining operations.”

8.G.3.4 *Active phase* - Activities including the extraction, removal or recovery of metal ore. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a). The active phase is considered part of “mining operations.”

8.G.3.5 *Reclamation phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the "active phase", intended to return the land to an appropriate post-mining land use in order to meet applicable Federal and State reclamation requirements. The reclamation phase is considered part of "mining operations."

8.G.3.6 *Active metal mining facility* - A place where work or other activity related to the extraction, removal, or recovery of metal ore is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a).

8.G.3.7 *Inactive metal mining facility* - A site or portion of a site where metal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive metal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

8.G.3.8 *Temporarily inactive metal mining facility* - A site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

8.G.3.9 *Final Stabilization* - A site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

8.G.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

8.G.4.1 Management Practices for Clearing, Grading, and Excavation Activities.

8.G.4.1.1 *Selecting and installing control measures*. For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable Part 2 effluent limits.

8.G.4.1.2 *Good Housekeeping*. Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

8.G.4.1.3 *Retention and Detention of Stormwater Runoff*. For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated

volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector G facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

8.G.4.2 Inspection of Clearing, Grading, and Excavation Activities.

8.G.4.2.1 *Inspection Frequency*. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized (pursuant to Part 8.G.4.3.2), if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

8.G.4.2.2 *Location of Inspections*. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

8.G.4.2.3 *Inspection Reports*. For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include the information required in Part 4.1.

8.G.4.3 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

8.G.4.3.1 *Inspections and Maintenance.* Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area, or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

8.G.4.3.2 *Temporary Stabilization of Disturbed Areas*. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial

vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

8.G.4.3.3 *Final Stabilization of Disturbed Areas.* Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

8.G.5 Additional Technology-Based Effluent Limits.

8.G.5.1 *Employee Training.* (See also Part 2.1.2.9) Conduct employee training at least annually at active and temporarily inactive sites.

8.G.5.2 *Stormwater Controls.* Apart from the control measures you implement to meet your Part 2 effluent limits, consider implementing the following control measures at your site. The potential pollutants identified in Part 8.G.6.3 shall determine the priority and appropriateness of the control measures selected.

8.G.5.2.1 *Stormwater Diversions*: Consider diverting stormwater away from potential pollutant sources. Following are some options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

8.G.5.2.2 *Capping*: When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

8.G.5.2.3 *Treatment*: If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged where practicable. Treated runoff may be discharged as a stormwater source regulated under this permit

provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

8.G.5.3 *Certification of Discharge Testing.* (See also Part 5.1.3.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-stormwater discharges such as seeps or adit discharges, or discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 440), such as mine drainage or process water. Alternatively (if applicable), you may keep a certification with your SWPPP consistent with Part 8.G.6.6.

8.G.6 Additional SWPPP Requirements.

8.G.6.1 *Nature of Industrial Activities*. (See also Part 5.1.2) Briefly document in your SWPPP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities**.**

8.G.6.2 *Site Map*. (See also Part 5.1.2) Document in your SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage (where water leaves mine) or other process water; tailings piles and ponds (including proposed ones); heap leach pads; off-site points of discharge for mine drainage and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

8.G.6.3 *Potential Pollutant Sources.* (See also Part 5.1.3) For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, identify the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. Consider these factors: the mineralogy of the ore and waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in ore type being mined, update your SWPPP with this information.

8.G.6.4 *Documentation of Control Measures.* Document all control measures that you implement consistent with Part 8.G.5.2. If control measures are implemented or planned but are not listed in Part 8.G.5.2 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPPP.

8.G.6.5 *Employee Training.* All employee training(s) must be documented in the SWPPP.

8.G.6.6 *Certification of Permit Coverage for Commingled Non-Stormwater Discharges:* If you are able, consistent with Part 8.G.5.3 above, to certify that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, retain such certification with your SWPPP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

8.G.7 Additional Inspection Requirements.

(See also Part 4.1 and 8.G.4.2.) Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 8.G.4.2.1, inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters designated as outstanding waters or waters which are impaired for sediment or nitrogen must be inspected monthly. See Part 8.G.8.4 for inspection requirements for inactive and unstaffed sites.

8.G.8 Monitoring and Reporting Requirements. (See also Part 6 of the permit.)

Note: There are no Part 8.G.8 monitoring and reporting requirements for inactive and unstaffed sites.

8.G.8.1 *Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities.* Active copper ore mining and dressing facilities, must sample and analyze stormwater discharges for the pollutants listed in Table 8.G-1.

Table 8.G-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector G1. Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Total Suspended Solids (TSS)	100 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

8.G.8.2 *Benchmark Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities.* For discharges from waste rock and overburden piles, perform benchmark monitoring once in the first year for the parameters listed in Table 8.G-2, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. You are also required to conduct analytic monitoring for the parameters listed in Table 8.G-3 in accordance with the requirements in Part 8.G.6.3. The Director may also notify you that you must perform additional monitoring to accurately characterize the quality and quantity of pollutants discharged from your waste rock and overburden piles.

Table 8.G-2.		
Subsector (Discharges may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Cutoff Concentration**
Subsector G2. Iron Ores; Copper Ores; Lead and Zinc Ores; Gold and Silver Ores; Ferroalloy Ores, Except Vanadium; and Miscellaneous Metal Ores (SIC Codes 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099) (Note: when analyzing hardness for a suite of metals, it is more cost effective to add analysis of calcium and magnesium, and have hardness calculated than to require hardness analysis separately)	Total Suspended Solids (TSS)	100 mg/L
	Turbidity	50 NTU
	pH	6.0-9.0 s.u.
	Hardness (as $CaCO_3$; calc. from Ca, Mg)[1]	no benchmark value
	Total Antimony	0.64 mg/L
	Total Arsenic	0.15 mg/ L
	Total Beryllium	0.13 mg/L
	Total Cadmium[1]	Hardness Dependent
	Total Copper[1]	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Lead[1]	Hardness Dependent
	Total Mercury	0.0014 mg/L
	Total Nickel[1]	Hardness Dependent
	Total Selenium	0.005 mg/L
	Total Silver[1]	Hardness Dependent
	Total Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Cadmium** (mg/L)	**Copper** (mg/L)	**Lead** (mg/L)	**Nickel** (mg/L)	**Silver** (mg/L)	**Zinc** (mg/L)
0-25 mg/L	0.0005	0.0038	0.014	0.15	0.0007	0.04
25-50 mg/L	0.0008	0.0056	0.023	0.20	0.0007	0.05
50-75 mg/L	0.0013	0.0090	0.045	0.32	0.0017	0.08
75-100 mg/L	0.0018	0.0123	0.069	0.42	0.0030	0.11
100-125 mg/L	0.0023	0.0156	0.095	0.52	0.0046	0.13
125-150 mg/L	0.0029	0.0189	0.122	0.61	0.0065	0.16
150-175 mg/L	0.0034	0.0221	0.151	0.71	0.0087	0.18
175-200 mg/L	0.0039	0.0253	0.182	0.80	0.0112	0.20
200-225 mg/L	0.0045	0.0285	0.213	0.89	0.0138	0.23
225-250 mg/L	0.0050	0.0316	0.246	0.98	0.0168	0.25
250+ mg/L	0.0053	0.0332	0.262	1.02	0.0183	0.26

8.G.8.3 Additional Analytic Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities. In addition to the monitoring required in Part 8.G.6.2 for discharges from waste rock and overburden piles, you must also conduct monitoring for additional parameters based on the type of ore you mine at your site. Where a parameter in Table 8.G-3 is the same as a pollutant you are required

to monitor for in Table 8.G-2 (i.e., for all of the metals, you must use the corresponding benchmark in Table 8.G-2 and you may use any monitoring results conducted for Part 8.G.6.2 to satisfy the monitoring requirement for that parameter for Part 8.G.6.3. For radium and uranium, which do not have corresponding benchmarks in Table 8.G-2, there are no applicable benchmarks.) The frequency and schedule for monitoring for these additional parameters is the same as that specified in Part 6.2.1.2.

Table 8.G-3. Additional Monitoring Requirements for Discharges from Waste Rock and Overburden Piles

Supplemental Requirements			
Type of Ore Mined	**Pollutants of Concern**		
	Total Suspended Solids (TSS)	**pH**	**Metals, Total**
Tungsten Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Nickel Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Aluminum Ore	X	X	Iron
Mercury Ore	X	X	Nickel (H)
Iron Ore	X	X	Iron (Dissolved)
Platinum Ore			Cadmium (H), Copper (H), Mercury, Lead (H), Zinc (H)
Titanium Ore	X	X	Iron, Nickel (H), Zinc (H)
Vanadium Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Molybdenum	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Mercury, Zinc (H)
Uranium, Radium, and Vanadium Ore	X	X	Chemical Oxygen Demand, Arsenic, Radium (Dissolved and Total), Uranium, Zinc (H)

Note: An "X" indicated for TSS and/or pH means that you are required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.

8.G.8.4 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Quarterly Visual Assessments and Routine Facility Inspections. As a Sector G facility, if you are seeking to exercise a waiver from the quarterly visual assessment and routine facility inspection requirements for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to stormwater" in Part 4.2.3. This exemption is conditioned on the following:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the quarterly visual assessment requirements; and
- EPA retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause,

or contributes to an instream excursion above an applicable water quality standard, including designated uses.

Subject to the two conditions above, if your facility is inactive and unstaffed, you are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. You are not waived from conducting the Part 4.3 comprehensive site inspection. You are encouraged to inspect your site more frequently where you have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

Table 8.G-4. Applicability of the Multi-Sector General Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation

Discharge/Source of Discharge	Note/Comment
Piles	
Waste rock/overburden	If composed entirely of stormwater and not combining with mine drainage. See note below.
Topsoil	--
Roads constructed of waste rock or spent ore	
Onsite haul roads	If composed entirely of stormwater and not combining with mine drainage. See note below.
Offsite haul and access roads	--
Roads not constructed of waste rock or spent ore	
Onsite haul roads	Except if mine drainage is used for dust control
Offsite haul and access roads	--
Milling/concentrating	
Runoff from tailings dams and dikes when constructed of waste rock/tailings	Except if process fluids are present and only if composed entirely of stormwater and not combining with mine drainage. See Note below.
Runoff from tailings dams/dikes when not constructed of waste rock and tailings	Except if process fluids are present
Concentration building	If stormwater only and no contact with piles
Mill site	If stormwater only and no contact with piles
Ancillary areas	
Office and administrative building and housing	If mixed with stormwater from the industrial area
Chemical storage area	--
Docking facility	Except if excessive contact with waste product that would otherwise constitute mine drainage
Explosive storage	--
Fuel storage (oil tanks/coal piles)	--
Vehicle and equipment maintenance area/building	--
Parking areas	But coverage unnecessary if only employee and visitor-type parking
Power plant	
Truck wash area	Except when excessive contact with waste product that would otherwise constitute mine drainage

Table 8.G-4. Applicability of the Multi-Sector General Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation	
Reclamation-related areas	
Any disturbed area (unreclaimed)	Only if not in active mining area
Reclaimed areas released from reclamation requirements prior to Dec. 17, 1990	--
Partially/inadequately reclaimed areas or areas not released from reclamation requirements	--

Note: Stormwater runoff from these sources are subject to the NPDES program for stormwater unless mixed with discharges subject to 40 CFR Part 440 that are regulated by another permit prior to mixing. Non-stormwater discharges from these sources are subject to NPDES permitting and may be subject to the effluent limitation guidelines under 40 CFR Part 440. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless: (1) it drains naturally (or is intentionally diverted) to a point source; and (2) combines with "mine drainage" that is otherwise regulated under the Part 440 regulations. For such sources, coverage under this permit would be available if the discharge composed entirely of stormwater does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, as well as meeting other eligibility criteria contained in Part 1.1 of the permit. Permit applicants bear the initial responsibility for determining the applicable technology-based standard for such discharges. EPA recommends that permit applicants contact the relevant NPDES permit issuance authority for assistance to determine the nature and scope of the "active mining area" on a mine-by-mine basis, as well as to determine the appropriate permitting mechanism for authorizing such discharges.

8.G.9. Termination of Permit Coverage

8.G.9.1 *Termination of Permit Coverage for Sites Reclaimed After December 17, 1990.* A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 8.G.7.2.

8.G.9.2 *Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990.* A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart H – Sector H – Coal Mines and Coal Mining-Related Facilities.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.H.1 Covered Stormwater Discharges.

The requirements in Subpart H apply to stormwater discharges associated with industrial activity from Coal Mines and Coal Mining-Related facilities as identified by the SIC Codes specified under Sector H in Table D-1 of Appendix D.

8.H.2 Limitations on Coverage.

8.H.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Not covered by this permit: discharges from pollutant seeps or underground drainage from inactive coal mines and refuse disposal areas that do not result from precipitation events, and discharges from floor drains in maintenance buildings and other similar drains in mining and preparation plant areas.

8.H.2.2 *Discharges Subject to Stormwater Effluent Guidelines.* (See also Part 1.1.4.4) Not authorized by this permit: stormwater discharges subject to an existing effluent limitation guideline at 40 CFR Part 434.

8.H.3 Definitions

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

8.H.3.1 *Mining operation* - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

8.H.3.2 *Exploration phase* - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of "mining operations."

8.H.3.3 *Construction phase* - Includes the building of site access roads and removal of overburden and waste rock to expose mineable coal. The construction phase is not considered part of "mining operations."

8.H.3.4 *Active phase* - Activities including the extraction, removal or recovery of coal. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 434.11(b). The active phase is considered part of "mining operations."

8.H.3.5 *Reclamation phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the "active phase", intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations."

8.H.3.6 *Active coal mining facility* - A place where work or other activity related to the extraction, removal, or recovery of coal is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 434.11(b).

8.H.3.7 *Inactive coal mining facility* - A site or portion of a site where coal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive coal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

8.H.3.8 *Temporarily inactive coal mining facility* - A site or portion of a site where coal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

8.H.3.9 *Final Stabilization* - A site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

8.H.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

8.H.4.1 Management Practices for Clearing, Grading, and Excavation Activities.

8.H.4.1.1 *Selecting and installing control measures.* For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable Part 2 effluent limits.

8.H.4.1.2 *Good Housekeeping.* Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

8.H.4.1.3 *Retention and Detention of Stormwater Runoff.* For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage

per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector H facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

8.H.4.2 *Inspection of Clearing, Grading, and Excavation Activities.*

8.H.4.2.1 *Inspection Frequency.* Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized (pursuant to Part 8.H.4.3.2), if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

8.H.4.2.2 *Location of Inspections.* Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

8.H.4.2.3 *Inspection Reports.* For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include the information required in Part 4.1.

8.H.4.3 *Requirements for Cessation of Clearing, Grading, and Excavation Activities.*

8.H.4.3.1 *Inspections and Maintenance.* Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area.

8.H.4.3.2 *Temporary Stabilization of Disturbed Areas.* Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable.

Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

8.H.4.3.2 *Final Stabilization of Disturbed Areas.* Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, temporary vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

8.H.5 Additional Technology-Based Effluent Limits.

8.H.5.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2) As part of your good housekeeping program, consider using sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.

8.H.5.2 *Preventive Maintenance.* (See also Part 2.1.2.3) Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.

8.H.6 Additional SWPPP Requirements.

8.H.6.1 *Other Applicable Regulations.* Most active coal mining-related areas (SIC Codes 1221-1241) are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to most coal-producing states to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of stormwater-related pollutant discharges must be addressed and then documented with the SWPPP (directly or by reference).

8.H.6.2 *Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas; acidic spoil, refuse, or unreclaimed disturbed areas; and liquid storage tanks containing pollutants such as caustics, hydraulic fluids, and lubricants.

8.H.6.3 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following sources and activities that have potential pollutants associated with them: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid, or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil.

8.H.7 Additional Inspection Requirements.

8.H.7.1 *Inspections of Active Mining-Related Areas.* (See also Part 4) Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 8.H.4.2.1, perform quarterly inspections of active mining areas covered by this permit, corresponding with the inspections as performed by SMCRA inspectors, of all mining-related areas required by SMCRA. Also maintain the records of the SMCRA authority representative. See Part 8.H.8.1 for inspection requirements for inactive and unstaffed sties.

8.H.7.2 *Sediment and Erosion Control.* (See also Part 2.1.2.5) As indicated in Part 8.H.6.1, SMCRA requirements regarding sediment and erosion control measures must be complied with for those areas subject to SMCRA authority, including inspection requirements.

8.H.7.3 *Comprehensive Site Inspections.* (See also Part 4.3) Your inspection program must include inspections for pollutants entering the drainage system from activities located on or near coal mining-related areas. Among the areas to be inspected are haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas.

8.H.8 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.H-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector H1. Coal Mines and Related Areas (SIC 1221-1241)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Suspended Solids (TSS)	100 mg/L

8.H.8.1 *Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring.* As a Sector H facility, if you are seeking to exercise a waiver from either the quarterly visual assessment or the benchmark monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to

stormwater" in Parts 4.2.3 and 6.2.1.3, respectively. Additionally, if you are seeking to reduce your required quarterly routine inspection frequency to a once annual comprehensive inspection, as is allowed under Part 4.1.3, you are also conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to stormwater." These conditional exemptions are based on the following requirements:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements as if you were in your first year of permit coverage, and the quarterly visual assessment requirements; and
- EPA retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause or contribute to an instream excursion above an applicable water quality standard, including designated uses.

Subject to the two conditions above, if your facility is inactive and unstaffed, you are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. You are not waived from conducting the Part 4.3 comprehensive site inspection. You are encouraged to inspect your site more frequently where you have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

8.H.9 Termination of Permit Coverage

8.H.9.1 *Termination of Permit Coverage for Sites Reclaimed After December 17, 1990.* A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 8.H.7.2.

8.H.9.2 *Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990.* A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart I – Sector I – Oil and Gas Extraction.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.I.1 Covered Stormwater Discharges.

The requirements in Subpart I apply to stormwater discharges associated with industrial activity from Oil and Gas Extraction facilities as identified by the SIC Codes specified under Sector I in Table D-1 of Appendix D of the permit.

Discharges of stormwater runoff from field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities are exempt from NPDES permit coverage unless, in accordance with 40 CFR 122.26(c)(1)(iii), the facility:

- Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or
- Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- Contributes to a violation of a water quality standard.

Any stormwater discharges that require permit coverage as a result of meeting one of the conditions of 122.26(c)(1)(iii) may be covered under this permit unless otherwise required to obtain coverage under an alternative NPDES general permit or an individual NPDES permit as specified in Part 1.6.1.

8.I.2 Limitations on Coverage.

8.I.2.1 *Stormwater Discharges Subject to Effluent Limitation Guidelines.* (See also Part 1.1.4.4) This permit does not authorize stormwater discharges from petroleum drilling operations that are subject to nationally established effluent limitation guidelines found at 40 CFR Part 435, respectively.

8.I.2.2 *Non-Stormwater Discharges.* Discharges of vehicle and equipment washwater, including tank cleaning operations, are not authorized by this permit. Alternatively, washwater discharges must be authorized under a separate NPDES permit, or be discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

8.I.3 Additional Technology-Based Effluent Limits.

8.I.3.1 *Vegetative Controls.* Implement vegetative practices designed to preserve existing vegetation, where attainable, and revegetate open areas as soon as practicable after grade drilling. Consider the following (or equivalent measures): temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, and tree protection practices. Begin implementing appropriate vegetative practices on all disturbed areas within 14 days following the last activity in that area.

8.I.4 Additional SWPPP Requirements.

8.I.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: Reportable Quantity (RQ) releases; locations used for the treatment, storage, or disposal of wastes; processing areas and storage areas; chemical mixing areas; construction and drilling areas; all areas subject to the effluent guidelines requirements for "No Discharge" in accordance with 40 CFR 435.32; and the structural controls to achieve compliance with the "No Discharge" requirements.

8.I.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Also document in your SWPPP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing activities; drilling or mining activities; and equipment cleaning and rehabilitation activities. In addition, include information about the reportable quantity (RQ) release that triggered the permit application requirements: the nature of the release (e.g., spill of oil from a drum storage area), amount of oil or hazardous substance released, amount of substance recovered, date of the release, cause of the release (e.g., poor handling techniques and lack of containment in the area), areas affected by the release (i.e., land and water), procedure to clean up release, actions or procedures implemented to prevent or improve response to a release, and remaining potential contamination of stormwater from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).

8.I.4.3 *Erosion and Sedimentation Control.* (See also Part 2.1.2.5) Unless covered by the current Construction General Permit (CGP), the additional documentation requirements for sediment and erosion controls for well drillings and sand/shale mining areas include the following:

8.I.4.3.1 *Site Description.* Also include a description in your SWPPP of the nature of the exploration activity, estimates of the total area of site and area disturbed due to exploration activity, an estimate of runoff coefficient of the site, a site drainage map, including approximate slopes, and the names of all receiving waters.

8.I.4.3.2 *Vegetative Controls.* Document vegetative practices used consistent with Part 8.I.3.1 in the SWPPP.

8.I.5 Additional Inspection Requirements.

All erosion and sedimentation control measures must be inspected every 7 days.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart J – Sector J – Non-Metallic Mineral Mining and Dressing.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.J.1 Covered Stormwater Discharges.

The requirements in Subpart J apply to stormwater discharges associated with industrial activity from Active and Inactive Non-Metallic Mineral Mining and Dressing facilities as identified by the SIC Codes specified under Sector J in Table D-1 of Appendix D of the permit.

8.J.1.1 *Covered Discharges from Inactive Facilities.* All stormwater discharges.

8.J.1.2 *Covered Discharges from Active and Temporarily Inactive Facilities.* All stormwater discharges, except for most stormwater discharges subject to the existing effluent limitation guideline at 40 CFR Part 436. Mine dewatering discharges composed entirely of stormwater or uncontaminated ground water seepage from: construction sand and gravel, industrial sand, and crushed stone mining facilities in Regions 1, 2, 3, 6, 9, and 10 are covered by this permit.

8.J.1.3 *Covered Discharges from Exploration and Construction of Non-Metallic Mineral Mining Facilities.* All stormwater discharges.

8.J.1.4 Covered Discharges from Sites Undergoing Reclamation. All stormwater discharges.

8.J.2 Limitations on Coverage.

Most stormwater discharges subject to an existing effluent limitation guideline at 40 CFR Part 436 are not authorized by this permit. The exceptions to this limitation, which are covered by this permit, are mine dewatering discharges composed entirely of stormwater or uncontaminated ground water seepage from construction sand and gravel, industrial sand, and crushed stone mining facilities in Regions 1, 2, 3, 6, 9, and 10.

8.J.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

8.J.3.1 *Mining operations* - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

8.J.3.2 *Exploration phase* - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of "mining operations."

8.J.3.3 *Construction phase* - Includes the building of site access roads and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of "mining operations".

8.J.3.4 *Active phase* - Activities including the extraction, removal or recovery of minerals. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a). The active phase is considered part of "mining operations."

8.J.3.5 *Reclamation phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the "active phase", intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations".

NOTE: The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

8.J.3.6 *Active Mineral Mining Facility* - A place where work or other activity related to the extraction, removal, or recovery of minerals is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a).

8.J.3.7 *Inactive Mineral Mining Facility* - A site or portion of a site where mineral mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive mineral mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

8.J.3.8 *Temporarily Inactive Mineral Mining Facility* - A site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

8.J.3.9 *Final Stabilization* - a site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

8.J.3.10 *Uncontaminated* - Free from the presence of pollutants attributable to industrial activity.

8.J.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

8.J.4.1 *Management Practices for Clearing, Grading, and Excavation Activities.*

8.J.4.1.1 *Selecting and installing control measures.* For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable Part 2 effluent limits.

8.J.4.1.2 *Good Housekeeping.* (See also Part 2.1.2.2) Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

8.J.4.1.3 *Retention and Detention of Stormwater Runoff.* For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided.

8.J.4.2 *Inspection of Clearing, Grading, and Excavation Activities.* (See also Part 4)

8.J.4.2.1 *Inspection Frequency.* Inspections must be conducted either at least once every 7 calendar days or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized (pursuant to Part 8.J.4.3.2), if runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or construction is occurring during seasonal arid periods in arid areas and semi-arid areas.

8.J.4.2.2 *Location of Inspections.* Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures implemented must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

8.J.4.2.3 *Inspection Reports.* (See also Part 4.1) For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include the information required in Part 4.1.

8.J.4.3 *Requirements for Cessation of Clearing, Grading, and Excavation Activities.*

8.J.4.3.1 *Inspections and Maintenance.* Inspections and maintenance of control measures, including any BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area or until the

commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining

8.J.4.3.2 *Temporary Stabilization of Disturbed Areas.* Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

8.J.4.3.3 *Final Stabilization of Disturbed Areas.* Stabilization measures should be initiated immediately in portions of the site where mining, exploration, and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers must be used.

8.J.5 Additional Technology-Based Effluent Limits.

8.J.5.1 *Employee Training.* Conduct employee training at least annually at active and temporarily inactive sites. (See also Part 2.1.2.9)

8.J.5.2 *Stormwater Controls.* Apart from the control measures you implement to meet your Part 2 effluent limits, where necessary to minimize pollutant discharges, implement the following control measures at your site. The potential pollutants identified in Part 8.J.5.3 shall determine the priority and appropriateness of the control measures selected.

8.J.5.2.1 *Stormwater Diversions:* Consider diverting stormwater away from potential pollutant sources. Following are some control measure options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

8.J.5.2.2 *Capping:* When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

8.J.5.2.3 *Treatment:* If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged. Treated runoff may be discharged as a stormwater source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Mineral Mining and Processing Point Source Category (40 CFR Part 436).

8.J.5.3 *Certification of Discharge Testing:* (See also Part 5.1.4.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-stormwater discharges such as discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 436). Alternatively (if applicable), you may keep a certification with your SWPPP.

8.J.6 Additional SWPPP Requirements.

The requirements in Part 8.J.6 are applicable for sites undergoing exploration and construction, active mineral mining facilities, temporarily inactive mineral mining facilities, and sites undergoing reclamation. The requirements in Part 8.J.6 are not applicable to inactive mineral mining facilities.

8.J.6.1 *Nature of Industrial Activities.* (See also Part 5.1.2) Document in your SWPPP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities**.**

8.J.6.2 *Site Map.* (See also Part 5.1.2) Document in your SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage dewatering or other process water; heap leach pads; off-site points of discharge for mine dewatering and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

8.J.6.3 *Potential Pollutant Sources.* (See also Part 5.1.3) For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, document in your SWPPP the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. For example, phosphate mining facilities will likely need to document pollutants such as selenium, which can be present in significant amounts in their discharges. Consider these factors: the mineralogy of the waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the

likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing waste rock or overburden characterization data and test results for potential generation of acid rock drainage.

8.J.6.4 *Stormwater Controls.* To the extent that you use any of the control measures in Part 8.J.5.2, document them in your SWPPP pursuant to Part 5.1.4. If control measures are implemented or planned but are not listed here (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPPP.

8.J.6.4 *Employee Training.* All employee training(s) conducted in accordance with Part 8.J.5.1 must be documented with the SWPPP.

8.J.6.5 *Certification of Permit Coverage for Commingled Non-Stormwater Discharges.* If you determine that you are able to certify, consistent with Part 8.J.5.3, that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, you must retain such certification with your SWPPP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

8.J.7 Additional Inspection Requirements.

Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 8.J.4.2.1, you must inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are designated as outstanding waters or waters which are impaired for sediment or nitrogen must be inspected monthly. See Part 8.J.8.1 for inspection requirements for inactive and unstaffed sites. (See also Part 4.1 and 8.J.4.2.)

8.J.8 Sector-Specific Benchmarks

Table 8.J-1 identifies benchmarks that apply to the specific subsectors of Sector J. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.J-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector J1. Sand and Gravel Mining (SIC 1442, 1446)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L
Subsector J2. Dimension and Crushed Stone and Nonmetallic Minerals (except fuels) (SIC 1411, 1422-1429, 1481, 1499)	Total Suspended Solids (TSS)	100 mg/L

8.J.8.1 *Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring.* As a Sector J facility, if you are seeking to exercise a waiver from either the routine inspection, quarterly visual assessment or the benchmark monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to stormwater" in Parts 4.2.3 and 6.2.1.3, respectively. This exemption is conditioned on the following:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements as if you were in your first year of permit coverage, and the quarterly visual assessment requirements; and
- EPA retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

Subject to the two conditions above, if your facility is inactive and unstaffed, you are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. You are not waived from conducting the Part 4.3 comprehensive site inspection. You are encouraged to inspect your site more frequently where you have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

8.J.9 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit)

Table 8.J-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.J-2

Industrial Activity	Parameter	Effluent Limit[1]
Mine dewatering discharges at crushed stone mining facilities (SIC 1422 - 1429)	pH	6.0 - 9.0
Mine dewatering discharges at construction sand and gravel mining facilities (SIC 1442)	pH	6.0 - 9.0
Mine dewatering discharges at industrial sand mining facilities (SIC 1446)	Total Suspended Solids (TSS)	25 mg/L, monthly avg.
		45 mg/L, daily maximum
	pH	6.0 - 9.0

[1]Monitor annually.

8.J.10 Termination of Permit Coverage

8.J.10.1 *Termination of Permit Coverage for Sites Reclaimed After December 17, 1990.* A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 8.J.7.2.

8.J.10.2 *Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990.* A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.K.1 Covered Stormwater Discharges.

The requirements in Subpart K apply to stormwater discharges associated with industrial activity from Hazardous Waste Treatment, Storage, or Disposal facilities (TSDFs) as identified by the Activity Code specified under Sector K in Table D-1 of Appendix D of the permit.

8.K.2 Industrial Activities Covered by Sector K.

This permit authorizes stormwater discharges associated with industrial activity from facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of RCRA.

Disposal facilities that have been properly closed and capped, and have no significant materials exposed to stormwater, are considered inactive and do not require permits.

8.K.3 Limitations on Coverage.

8.K.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.K.3.2 *Limitations on Coverage for Facilities Providing Commercial TSDF Services.* For facilities located in Region 6 (see Appendix C) coverage is limited to hazardous waste TSDFs that are self-generating (including occasionally accepting wastes from community household hazardous waste collection events as public service), handle only residential wastes, and/or only store hazardous wastes and do not treat or dispose of them. Coverage under this permit is not available to commercial waste disposal and treatment facilities located in Region 6 that dispose and treat on a commercial basis any produced hazardous wastes (i.e., not their own) as a service to commercial or industrial generators.

8.K.4 Definitions.

8.K.4.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.5. Some specific areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

8.K.4.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

8.K.4.3 *Landfill* - an area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR 257.2, 258.2, and 260.10.

8.K.4.4 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated stormwater, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.K.4.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.K.4.6 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.4. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

8.K.5 Sector-Specific Benchmarks

Table 8.K-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.K-1.		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector K1. ALL - Industrial Activity Code "HZ" (Note: permit coverage limited in some States). Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A (see below).	Ammonia	2.14 mg/L
	Total Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Arsenic	0.15 mg/L
	Total Cadmium[1]	Hardness Dependent
	Total Cyanide	0.022 mg/ L
	Total Lead[1]	Hardness Dependent
	Total Mercury	0.0014 mg/ L
	Total Selenium	0.005 mg/L
	Total Silver[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Cadmium** (mg/L)	**Lead** (mg/L)	**Silver** (mg/L)
0-25 mg/L	0.0005	0.014	0.0007
25-50 mg/L	0.0008	0.023	0.0007
50-75 mg/L	0.0013	0.045	0.0017
75-100 mg/L	0.0018	0.069	0.0030
100-125 mg/L	0.0023	0.095	0.0046
125-150 mg/L	0.0029	0.122	0.0065
150-175 mg/L	0.0034	0.151	0.0087
175-200 mg/L	0.0039	0.182	0.0112
200-225 mg/L	0.0045	0.213	0.0138
225-250 mg/L	0.0050	0.246	0.0168
250+ mg/L	0.0053	0.262	0.0183

8.K.6 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.K-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.K-2[1]		
Industrial Activity	**Parameter**	**Effluent Limit**
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A (see footnote).	Biochemical Oxygen Demand (BOD_5)	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum
	Pyridine	0.072 mg/L, daily maximum
		0.025 mg/L, monthly avg. maximum
	Total Arsenic	1.1 mg/L, daily maximum
		0.54 mg/L, monthly avg. maximum
	Total Chromium	1.1 mg/L, daily maximum
		0.46 mg/L, monthly avg. maximum
	Total Zinc	0.535 mg/L, daily maximum
		0.296 mg/L, monthly avg. maximum
	pH	Within the range of 6-9 standard pH units (s.u.)

[1] Monitor annually. As set forth at 40 CFR Part 445 Subpart A, these numeric limitations apply to contaminated stormwater discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR Parts 264 (Subpart N) and 265 (Subpart N) except for any of the following facilities:

(a) landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;

(b) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;

(c) landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or

(d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.L.1 Covered Stormwater Discharges.

The requirements in Subpart L apply to stormwater discharges associated with industrial activity from Landfills and Land Application Sites and Open Dumps as identified by the Activity Code specified under Sector L in Table D-1 of Appendix D of the permit.

8.L.2 Industrial Activities Covered by Sector L.

This permit may authorize stormwater discharges for Sector L facilities associated with waste disposal at landfills, land application sites, and open dumps that receive or have received industrial waste, including sites subject to regulation under Subtitle D of RCRA. This permit does not cover discharges from landfills that receive only municipal wastes.

8.L.3 Limitations on Coverage.

8.L.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.L.4 Definitions.

8.L.4.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

8.L.4.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

8.L.4.3 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill process wastewater includes, but is not limited to, leachate; gas collection condensate; drained free liquids; laboratory-derived wastewater; contaminated stormwater; and contact washwater from washing truck,

equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.L.4.4 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.L.4.5 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

8.L.5 Additional Technology-Based Effluent Limits.

8.L.5.1 *Preventive Maintenance Program.* (See also Part 2.1.2.3) As part of your preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with stormwater; the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary), to minimize the effects of settlement, sinking, and erosion.

8.L.5.2 *Erosion and Sedimentation Control.* (See also Part 2.1.2.5) Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.

8.L.5.3 *Unauthorized Discharge Test Certification.* (See also Part 5.1.3.4) The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

8.L.6 Additional SWPPP Requirements.

8.L.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.

8.L.5.2 *Summary of Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

8.L.7 Additional Inspection Requirements. (See also Part 4)

8.L.7.1 *Inspections of Active Sites.* Except in arid and semi-arid climates, inspect operating landfills, open dumps, and land application sites at least once every 7 days. Focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed, or where the climate is arid or semi-arid, conduct inspections at least once every month.

8.L.7.2 *Inspections of Inactive Sites.* Inspect inactive landfills, open dumps, and land application sites at least quarterly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

8.L.8 Additional Post-Authorization Documentation Requirements.

8.L.8.1 *Recordkeeping and Internal Reporting.* Keep records with your SWPPP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

8.L.9 Sector-Specific Benchmarks

Table 8.L-1 identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.L-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration[1]
Subsector L1. All Landfill, Land Application Sites and Open Dumps (Industrial Activity Code "LF")	Total Suspended Solids (TSS)	100 mg/L
Subsector L2. All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Industrial Activity Code "LF")	Total Iron	1.0 mg/L

[1]Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 above).

8.L.10. Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.L-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.L-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD_5)	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Total Zinc	0.20 mg/L, daily maximum
		0.11 mg/L, monthly avg. maximum
	pH	Within the range of 6-9 standard pH units (s.u.)

[1] Monitor annually. As set forth at 40 CFR Part 445 Subpart B, these numeric limitations apply to contaminated stormwater discharges from MSWLFs that have not been closed in accordance with 40 CFR 258.60, and to contaminated stormwater discharges from those landfills that are subject to the provisions of 40 CFR Part 257 except for discharges from any of the following facilities:

(a) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;

(b) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;

(c) landfills operated in conjunction with CWT facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or

(d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart M – Sector M – Automobile Salvage Yards.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.M.1 Covered Stormwater Discharges.

The requirements in Subpart M apply to stormwater discharges associated with industrial activity from Automobile Salvage Yards as identified by the SIC Code specified under Sector M in Table D-1 of Appendix D of this permit.

8.M.2 Additional Technology-Based Effluent Limits.

8.M.2.1 *Spill and Leak Prevention Procedures.* (See also Part 2.1.2.4) Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks.

8.M.2.2 *Employee Training.* (See also Part 2.1.2.9) If applicable to your facility, address the following areas (at a minimum) in your employee training program: proper handling (collection, storage, and disposal) of oil, used mineral spirits, anti-freeze, mercury switches, and solvents.

8.M.2.3 *Management of Runoff.* (See also Part 2.1.2.6) Consider the following management practices: berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); berms for uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage; installation of detention ponds; and installation of filtering devices and oil and water separators.

M.3 Additional SWPPP Requirements.

8.M.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

8.M.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following to contribute pollutants to stormwater discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

8.M.4 Additional Inspection Requirements. (See also Part 4.1) Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect quarterly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect quarterly for signs of leakage all vessels and

areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

8.M.5 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.M-1.		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector M1. Automobile Salvage Yards (SIC 5015)	Total Suspended Solids (TSS)	100 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Lead** (mg/L)
0-25 mg/L	0.014
25-50 mg/L	0.023
50-75 mg/L	0.045
75-100 mg/L	0.069
100-125 mg/L	0.095
125-150 mg/L	0.122
150-175 mg/L	0.151
175-200 mg/L	0.182
200-225 mg/L	0.213
225-250 mg/L	0.246
250+ mg/L	0.262

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.N.1 Covered Stormwater Discharges.

The requirements in Subpart N apply to stormwater discharges associated with industrial activity from Scrap Recycling and Waste Recycling facilities as identified by the SIC Code specified under Sector N in Table D-1 of Appendix D of the permit.

8.N.2 Limitation on Coverage.

Separate permit requirements have been established for recycling facilities that only receive source-separated recyclable materials primarily from non-industrial and residential sources (i.e., common consumer products including paper, newspaper, glass, cardboard, plastic containers, and aluminum and tin cans). This includes recycling facilities commonly referred to as material recovery facilities (MRF).

8.N.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Non-stormwater discharges from turnings containment areas are not covered by this permit (see also Part 8.N.3.2.3). Discharges from containment areas in the absence of a storm event are prohibited unless covered by a separate NPDES permit.

8.N.3 Additional Technology-Based Effluent Limits.

8.N.3.1 *Scrap and Waste Recycling Facilities (Non-Source Separated, Nonliquid Recyclable Materials).* Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

8.N.3.1.1 *Inbound Recyclable and Waste Material Control Program.* Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to your facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for

the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Part 8.N.3.2.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).

8.N.3.1.2 *Scrap and Waste Material Stockpiles and Storage (Outdoor).* Minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).

8.N.3.1.3 *Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage).* Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. You must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

8.N.3.1.4 *Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage).* Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.

8.N.3.1.5 *Scrap and Recyclable Waste Processing Areas.* Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some control measure options: (a) regularly

inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.

8.N.3.1.6 *Scrap Lead-Acid Battery Program.* Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.

8.N.3.1.7 *Spill Prevention and Response Procedures.* (See also Part 2.1.2.4)Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

8.N.3.1.8 *Supplier Notification Program.* As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

8.N.3.2 Waste Recycling Facilities (Liquid Recyclable Materials).

8.N.3.2.1 *Waste Material Storage (Indoor).* Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be

discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate NPDES wastewater permit or industrial user permit under the pretreatment program.

8.N.3.2.2 *Waste Material Storage (Outdoor).* Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.

8.N.3.2.3 *Trucks and Rail Car Waste Transfer Areas.* Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

8.N.3.3 *Recycling Facilities (Source-Separated Materials).* The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

8.N.3.3.1 *Inbound Recyclable Material Control.* Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.

8.N.3.3.2 *Outdoor Storage.* Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes;

and (f) store the equivalent of one day's volume of recyclable material indoors.

8.N.3.3.3 *Indoor Storage and Material Processing.* Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

8.N.3.3.4 *Vehicle and Equipment Maintenance.* Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

8.N.4 Additional SWPPP Requirements.

8.N.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.

8.N.4.2 *Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities.* If you are subject to Part 8.N.3.1.3, your SWPPP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

8.N.5 Additional Inspection Requirements.

8.N.5.1 *Inspections for Waste Recycling Facilities.* The inspections must be performed quarterly, pursuant to Part 4.1, and include, at a minimum, all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or stormwater runoff.

8.N.6 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.N-1.		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Recoverable Aluminum	0.75 mg/L
	Total Recoverable Copper[1]	Hardness Dependent
	Total Recoverable Iron	1.0 mg/L
	Total Recoverable Lead[1]	Hardness Dependent
	Total Recoverable Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Copper** (mg/L)	**Lead** (mg/L)	**Zinc** (mg/L)
0-25 mg/L	0.0038	0.014	0.04
25-50 mg/L	0.0056	0.023	0.05
50-75 mg/L	0.0090	0.045	0.08
75-100 mg/L	0.0123	0.069	0.11
100-125 mg/L	0.0156	0.095	0.13
125-150 mg/L	0.0189	0.122	0.16
150-175 mg/L	0.0221	0.151	0.18
175-200 mg/L	0.0253	0.182	0.20
200-225 mg/L	0.0285	0.213	0.23
225-250 mg/L	0.0316	0.246	0.25
250+ mg/L	0.0332	0.262	0.26

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart O – Sector O – Steam Electric Generating Facilities.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.O.1 Covered Stormwater Discharges.

The requirements in Subpart O apply to stormwater discharges associated with industrial activity from Steam Electric Power Generating Facilities as identified by the Activity Code specified under Sector O in Table D-1 of Appendix D.

8.O.2 Industrial Activities Covered by Sector O.

This permit authorizes stormwater discharges from the following industrial activities at Sector O facilities:

8.O.2.1 steam electric power generation using coal, natural gas, oil, nuclear energy, etc., to produce a steam source, including coal handling areas;

8.O.2.2 coal pile runoff, including effluent limitations established by 40 CFR Part 423; and

8.O.2.3 dual fuel facilities that could employ a steam boiler.

8.O.3 Limitations on Coverage.

8.O.3.1 *Prohibition of Non-Stormwater Discharges.* Non-stormwater discharges subject to effluent limitations guidelines are not covered by this permit.

8.O.3.2 *Prohibition of Stormwater Discharges.* Stormwater discharges from the following are not covered by this permit:

8.O.3.2.1 ancillary facilities (e.g., fleet centers and substations) that are not contiguous to a stream electric power generating facility;

8.O.3.2.2 gas turbine facilities (providing the facility is not a dual-fuel facility that includes a steam boiler), and combined-cycle facilities where no supplemental fuel oil is burned (and the facility is not a dual-fuel facility that includes a steam boiler); and

8.O.3.2.3 cogeneration (combined heat and power) facilities utilizing a gas turbine.

8.O.4 Additional Technology-Based Effluent Limits. The following good housekeeping measures are required in addition to Part 2.1.2.2:

8.O.4.1 *Fugitive Dust Emissions.* Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, consider procedures such as installing

specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.

8.O.4.2 *Delivery Vehicles.* Minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site. Consider procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.

8.O.4.3 *Fuel Oil Unloading Areas.* Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Consider using containment curbs in unloading areas, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

8.O.4.4 *Chemical Loading and Unloading.* Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Consider using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and loading and unloading in covered areas and storing chemicals indoors.

8.O.4.5 *Miscellaneous Loading and Unloading Areas.* Minimize contamination of precipitation or surface runoff from loading and unloading areas. Consider covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.

8.O.4.6 *Liquid Storage Tanks.* Minimize contamination of surface runoff from above-ground liquid storage tanks. Consider protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.

8.O.4.7 *Large Bulk Fuel Storage Tanks.* Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). You must also comply with applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

8.O.4.8 *Spill Reduction Measures.* Minimize the potential for an oil or chemical spill, or reference the appropriate part of your SPCC plan. Visually inspect as part of your routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to stormwater, and make any necessary repairs immediately.

8.O.4.9 *Oil-Bearing Equipment in Switchyards.* Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Consider using level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.

8.O.4.10 *Residue-Hauling Vehicles.* Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair

vehicles without load covering or adequate gate sealing, or with leaking containers or beds.

8.O.4.11 *Ash Loading Areas.* Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.

8.O.4.12 *Areas Adjacent to Disposal Ponds or Landfills.* Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

8.O.4.13 *Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites.* Minimize the potential for contamination of runoff from these areas.

8.O.5 Additional SWPPP Requirements.

8.O.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).

8.O.5.2 *Documentation of Good Housekeeping Measures.* You must document in your SWPPP the good housekeeping measures implemented to meet the effluent limits in Part 8.O.4.

8.O.6 Additional Inspection Requirements.

8.O.6.1 *Comprehensive Site Compliance Inspection.* (See also Part 4.3) As part of your inspection, inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

8.O.7 Sector-Specific Benchmarks

Table 8.O-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table 8.O-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector O1. Steam Electric Generating Facilities (Industrial Activity Code "SE")	Total Iron	1.0 mg/L

8.O.8 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1 of the permit.)

Table 8.O-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.O-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/l[2]
	pH	6.0 min - 9.0 max

[1] Monitor annually.

[2] If your facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart P – Sector P – Land Transportation and Warehousing.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.P.1 Covered Stormwater Discharges.

The requirements in Subpart P apply to stormwater discharges associated with industrial activity from Land Transportation and Warehousing facilities as identified by the SIC Codes specified under Sector P in Table D-1 of Appendix D of the permit.

8.P.2 Limitation on Coverage

8.P.2.1 *Prohibited Discharges* (see also Parts 1.1.4 and 8.P.3.6) This permit does not authorize the discharge of vehicle/equipment/surface washwater, including tank cleaning operations. Such discharges must be authorized under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

8.P.3 Additional Technology-Based Effluent Limits.

8.P.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2) In addition to the Good Housekeeping requirements in Part 2.1.2.2, you must do the following. Recommended control measures are discussed as indicated:

8.P.3.1.1 *Vehicle and Equipment Storage Areas.* Minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Consider the following (or other equivalent measures): use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.

8.P.3.1.2 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Consider the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

8.P.3.1.3 *Material Storage Areas.* Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.). Consider the following (or other equivalent measures): storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

8.P.3.1.4 *Vehicle and Equipment Cleaning Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. Consider the following (or other equivalent measures): performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or other equivalent measures.

8.P.3.1.5 *Vehicle and Equipment Maintenance Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. Consider the following (or other equivalent measures): performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to maintenance areas.

8.P.3.1.6 *Locomotive Sanding (Loading Sand for Traction) Areas.* Consider the following (or other equivalent measures): covering sanding areas; minimizing stormwater run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by stormwater.

8.P.3.2 *Employee Training.* (See also Part 2.1.2.9) Train personnel at least once a year and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

8.P.4 Additional SWPPP Requirements.

8.P.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

8.P.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the stormwater conveyance system(s); and fueling areas. Describe these activities in the SWPPP.

8.P.4.3 *Description of Good Housekeeping Measures.* You must document in your SWPPP the good housekeeping measures you implement consistent with Part 8.P.3.

8.P.4.4 *Vehicle and Equipment Washwater Requirements.* If applicable, attach to or reference in your SWPPP, a copy of the NPDES permit issued for vehicle/equipment washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an

industrial user permit is issued under a local pretreatment program, attach a copy to your SWPPP. In any case, implement all non-stormwater discharge permit conditions or pretreatment conditions in your SWPPP. If washwater is handled in another manner (e.g., hauled offsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in the plan.

8.P.5 Additional Inspection Requirements. (See also Part 4.1) Inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas and loading/unloading areas.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart Q – Sector Q – Water Transportation.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.Q.1 Covered Stormwater Discharges.

The requirements in Subpart Q apply to stormwater discharges associated with industrial activity from Water Transportation facilities as identified by the SIC Codes specified under Sector Q in Table D-1 of Appendix D of the permit.

8.Q.2 Limitations on Coverage.

8.Q.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Not covered by this permit: bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

8.Q.3 Additional Technology-Based Effluent Limits.

8.Q.3.1 *Good Housekeeping Measures.* You must implement the following good housekeeping measures in addition to the requirements of part 2.1.2.2:

8.Q.3.1.1 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate NPDES permit. Collect or contain the discharges from the pressures washing area so that they are not co-mingled with stormwater discharges authorized by this permit.

8.Q.3.1.2 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.

8.Q.3.1.3 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

8.Q.3.1.4 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.

8.Q.3.1.5 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of stormwater to material handling areas.

8.Q.3.1.6 *Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

8.Q.3.2 *Employee Training.* (See also Part 2.1.2.9) As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

8.Q.3.3 *Preventive Maintenance.* (See also Part 2.1.2.3) As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

8.Q.4 Additional SWPPP Requirements.

8.Q.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid

storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

8.Q.4.2 *Summary of Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

8.Q.5 Additional Inspection Requirements.

(See also Part 4.1) Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

8.Q.6 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.Q-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead[1]	Hardness Dependent
	Total Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Lead (mg/L)	Zinc (mg/L)
0-25 mg/L	0.014	0.04
25-50 mg/L	0.023	0.05
50-75 mg/L	0.045	0.08
75-100 mg/L	0.069	0.11
100-125 mg/L	0.095	0.13
125-150 mg/L	0.122	0.16
150-175 mg/L	0.151	0.18
175-200 mg/L	0.182	0.20
200-225 mg/L	0.213	0.23
225-250 mg/L	0.246	0.25
250+ mg/L	0.262	0.26

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart R – Sector R – Ship and Boat Building and Repair Yards.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.R.1 Covered Stormwater Discharges.

The requirements in Subpart R apply to stormwater discharges associated with industrial activity from Ship and Boat Building and Repair Yards as identified by the SIC Codes specified under Sector R in Table D-1 of Appendix D of the permit.

8.R.2 Limitations on Coverage.

8.R.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Discharges containing bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels are not covered by this permit.

8.R.3 Additional Technology-Based Effluent Limits.

8.R.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.R.3.1.1 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate NPDES permit.

8.R.3.1.2 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharging into the receiving water or the storm sewer systems. Consider containing all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.

8.R.3.1.3 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

8.R.3.1.4 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of

materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.

8.R.3.1.5 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing stormwater run-on to material handling areas.

8.R.3.1.6 *Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Clean accessible areas of the drydock prior to flooding and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding, and having absorbent materials and oil containment booms readily available to clean up and contain any spills.

8.R.3.2 *Employee Training.* (See also Part 2.1.2.9) As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

8.R.3.4 *Preventive Maintenance.* (See also Part 2.1.2.3) As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

8.R.4 Additional SWPPP Requirements.

8.R.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

8.R.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding,

metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

8.R.4.3 *Documentation of Good Housekeeping Measures.* Document in your SWPPP any good housekeeping measures implemented to meet the effluent limits in Part 8.R.3.

8.R.4.3.1 *Blasting and Painting Areas.* Document in the SWPPP any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).

8.R.4.3.2 *Storage Areas.* Specify in your SWPPP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

8.R.5 Additional Inspection Requirements.

(See also Part 4.1) Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart S – Sector S – Air Transportation.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.S.1 Covered Stormwater Discharges.

The requirements in Subpart S apply to stormwater discharges associated with industrial activity from Air Transportation facilities identified by the SIC Codes specified under Sector S in Table D-1 of Appendix D of the permit.

8.S.2 Limitation on Coverage

8.S.2.1 *Limitations on Coverage.* This permit authorizes stormwater discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

Note: "deicing" will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

8.S.2.2 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4 and Part 8.S.3) This permit does not authorize the discharge of aircraft, ground vehicle, runway and equipment washwaters; nor the dry weather discharge of deicing chemicals. Such discharges must be covered by separate NPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.

8.S.3 Additional Technology-Based Effluent Limits.

8.S.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.S.3.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas. Minimize the contamination of stormwater runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangers). Consider the following practices (or their equivalents): performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the stormwater runoff from the maintenance area and providing treatment or recycling.

8.S.3.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas. (See also Part 8.S.3.6) Clearly demarcate these areas on the ground using signage or other

appropriate means. Minimize the contamination of stormwater runoff from cleaning areas.

8.S.3.1.3 Aircraft, Ground Vehicle and Equipment Storage Areas. Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of stormwater runoff from these storage areas. Consider the following control measures, including any BMPs (or their equivalents): storing aircraft and ground vehicles indoors; using drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.

8.S.3.1.4 Material Storage Areas. Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of stormwater. Also plainly label the vessels (e.g., "used oil," "Contaminated Jet A," etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures (or their equivalents): storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.

8.S.3.1.5 Airport Fuel System and Fueling Areas. Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following control measures (or their equivalents): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; and collecting stormwater runoff.

8.S.3.1.6 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.

8.S.3.1.6.1 Runway Deicing Operation: Minimize contamination of stormwater runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety. Also consider these control measure options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice buildup.

8.S.3.1.6.2 Aircraft Deicing Operations. Minimize contamination of stormwater runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and

adjust as necessary, consistent with considerations of flight safety. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets for MD-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.

8.S.3.1.7 Management of Runoff. (See also 2.1.2.6) Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options (or their equivalents): a dedicated deicing facility with a runoff collection/ recovery system; using vacuum/collection trucks; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and directing runoff into vegetative swales or other infiltration measures. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of stormwater contamination. Used deicing fluid should be recycled whenever possible.

8.S.3.2 *Deicing Season.* You must determine the seasonal timeframe (e.g., December-February, October - March, etc.) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If you meet the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season you identified is the timeframe during which you must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH. See also Part 8.S.6.

8.S.4 Additional SWPPP Requirements.

An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. If an airport tenant obtains authorization under this permit and develops a SWPPP for discharges from his own areas of the airport, prior to authorization, that SWPPP must be coordinated and integrated with the SWPPP for the entire airport. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties

who have contracts with the airport authority to conduct business operations on airport property and whose operations result in stormwater discharges associated with industrial activity.

8.S.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.

8.S.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) In your inventory of exposed materials, describe in your SWPPP the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If you use deicing chemicals, you must maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of your knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPPPs.

8.S.4.3 *Vehicle and Equipment Washwater Requirements.* Attach to or reference in your SWPPP, a copy of the NPDES permit issued for vehicle/equipment washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, include a copy in your SWPPP. In any case, if you are subject to another permit, describe your control measures for implementing all non-stormwater discharge permit conditions or pretreatment requirements in your SWPPP. If washwater is handled in another manner (e.g., hauled offsite, retained onsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in your SWPPP.

8.S.4.4 *Documentation of Control Measures Used for Management of Runoff:* Document in your SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

8.S.5 Additional Inspection Requirements.

8.S.5.1 *Inspections.* (See also Part 4.1) At a minimum conduct routine facility inspections at least monthly during the deicing season (e.g., October through April for most mid-latitude airports). If your facility needs to deice before or after this period, expand the monthly inspections to include all months during which deicing chemicals may be used. The Director may specifically require you to increase inspection frequencies.

8.S.5.2 *Comprehensive Site Inspections.* (See also Part 4.3) Using only qualified personnel, conduct your annual site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct the

inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

8.S.6 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Monitor per the requirements in Table 8.S-1.

Table 8.S-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor the first four parameters in ONLY those outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581).	Biochemical Oxygen Demand (BOD_5)[1]	30 mg/L
	Chemical Oxygen Demand (COD)[1]	120 mg/L
	Ammonia[1]	2.14 mg/L
	pH[1]	6.0 - 9.0 s.u.

[1] These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 8.S.3.2 when deicing activities are occurring.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart T – Sector T – Treatment Works.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.T.1 Covered Stormwater Discharges.

The requirements in Subpart T apply to stormwater discharges associated with industrial activity from Treatment Works as identified by the Activity Code specified under Sector T in Table D-1 of Appendix D of the permit.

8.T.2 Industrial Activities Covered by Sector T.

The requirements listed under this part apply to all existing point source stormwater discharges associated with the following activities:

8.T.2.1 Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge; that are located within the confines of a facility with a design flow of 1.0 million gallons per day (MGD) or more; or are required to have an approved pretreatment program under 40 CFR Part 403.

8.T.2.2 The following are not required to have permit coverage: farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located within the facility, or areas that are in compliance with Section 405 of the CWA.

8.T.3 Limitations on Coverage.

8.T.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Sanitary and industrial wastewater and equipment and vehicle washwater are not authorized by this permit.

8.T.4 Additional Technology-Based Effluent Limits.

8.T.4.1 *Control Measures.* (See also the non-numeric effluent limits in Part 2.1.2) In addition to the other control measures, consider the following: routing stormwater to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).

8.T.4.2 *Employee Training.* (See also Part 2.1.2.9) At a minimum, training must address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good

housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

8.T.5 Additional SWPPP Requirements.

8.T.5.1 *Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.

8.T.5.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following additional sources and activities that have potential pollutants associated with them, as applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

8.T.5.3 *Wastewater and Washwater Requirements.* Keep a copy of all your current NPDES permits issued for wastewater and industrial, vehicle and equipment washwater discharges or, if an NPDES permit has not yet been issued, a copy of the pending application(s) with your SWPPP. If the washwater is handled in another manner, the disposal method must be described and all pertinent documentation must be retained onsite.

8.T.6 Additional Inspection Requirements.

(See also Part 4.1) Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart U – Sector U – Food and Kindred Products.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.U.1 Covered Stormwater Discharges.

The requirements in Subpart U apply to stormwater discharges associated with industrial activity from Food and Kindred Products facilities as identified by the SIC Codes specified in Table D-1 of Appendix D of the permit.

8.U.2 Limitations on Coverage.

8.U.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: discharges containing boiler blowdown, cooling tower overflow and blowdown, ammonia refrigeration purging, and vehicle washing and clean-out operations.

8.U.3 Additional Technology-Based Limitations.

8.U.3.1 *Employee Training.* (See also Part 2.1.2.9) Address pest control in your employee training program.

8.U.4 Additional SWPPP Requirements.

8.U.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding pens; spoiled product; and broken product container storage areas.

8.U.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

8.U.5 Additional Inspection Requirements.

(See also Part 4.1) Inspect on a quarterly basis, at a minimum, the following areas where the potential for exposure to stormwater exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal holding pens; staging areas; and air pollution control equipment.

8.U.6 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.U-1.		
Subsector (You may be subject to requirements for more than one Sector / Subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector U1. Grain Mill Products (SIC 2041-2048)	Total Suspended Solids (TSS)	100 mg/L
Subsector U2. Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD_5)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.V.1 Covered Stormwater Discharges.

The requirements in Subpart V apply to stormwater discharges associated with industrial activity from Textile Mills, Apparel, and Other Fabric Product manufacturing as identified by the SIC Codes specified under Sector V in Table D-1 of Appendix D of the permit.

8.V.2 Limitations on Coverage.

8.V.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following are not authorized by this permit: discharges of wastewater (e.g., wastewater resulting from wet processing or from any processes relating to the production process), reused or recycled water, and waters used in cooling towers. If you have these types of discharges from your facility, you must cover them under a separate NPDES permit.

8.V.3 Additional Technology-Based Limitations.

8.V.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.V.3.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances. For storing empty chemical drums or containers, ensure that the drums and containers are clean (consider triple-rinsing) and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.

8.V.3.1.2 *Material Handling Areas.* Minimize contamination of stormwater runoff from material handling operations and areas. Consider the following (or their equivalents): use of spill and overflow protection; covering fueling areas; and covering or enclosing areas where the transfer of material may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.

8.V.3.1.3 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing run-on of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.

8.V.3.1.4 *Above-Ground Storage Tank Area.* Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regular cleanup of these areas; including measures for tanks, piping and valves explicitly in your SPCC program; minimizing runoff of stormwater from adjacent areas; restricting access to the area; inserting filters in adjacent catch basins; providing absorbent booms in unbermed fueling areas; using dry cleanup methods; and permanently sealing drains within critical areas that may discharge to a storm drain.

8.V.3.2 *Employee Training.* (See also Part 2.1.2.9) As part of your employee training program, address, at a minimum, the following activities (as applicable): use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

8.V.4 Additional SWPPP Requirements.

8.V.4.1 *Potential Pollutant Sources. (See also Part 5.1.3) Document in your SWPPP the following additional sources* and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

8.V.4.2 *Description of Good Housekeeping Measures for Material Storage Areas.* Document in the SWPPP your containment area or enclosure for materials stored outdoors in connection with Part 8.V.3.1.1 above.

8.V.5 Additional Inspection Requirements.

(See also Part 4.1) Inspect, at least monthly, the following activities and areas (at a minimum): transfer and transmission lines, spill prevention, good housekeeping practices, management of process waste products, and all structural and nonstructural management practices.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart W – Sector W – Furniture and Fixtures.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.W.1 Covered Stormwater Discharges.

The requirements in Subpart W apply to stormwater discharges associated with industrial activity from Furniture and Fixtures facilities as identified by the SIC Codes specified under Sector W in Table D-1 of Appendix D of the permit.

8.W.2 Additional SWPPP Requirements.

8.W.2.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: material storage (including tanks or other vessels used for liquid or waste storage) areas; outdoor material processing areas; areas where wastes are treated, stored, or disposed of; access roads; and rail spurs.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart X – Sector X – Printing and Publishing.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.X.1 Covered Stormwater Discharges.

The requirements in Subpart X apply to stormwater discharges associated with industrial activity from Printing and Publishing facilities as identified by the SIC Codes specified under Sector X in Table D-1 of Appendix D of the permit.

8.X.2 Additional Technology-Based Effluent Limits.

8.X.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.X.2.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances.

8.X.2.1.2 *Material Handling Area.* Minimize contamination of stormwater runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Consider the following (or their equivalents): using spill and overflow protection, covering fueling areas, and covering or enclosing areas where the transfer of materials may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.

8.X.2.1.3 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing runoff of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.

8.X.2.1.4 *Above Ground Storage Tank Area.* Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regularly cleaning these areas, explicitly addressing tanks, piping and valves in the SPCC program, minimizing stormwater runoff from adjacent areas, restricting access to the area, inserting filters in adjacent catch basins, providing absorbent booms in unbermed fueling areas, using dry cleanup methods, and permanently sealing drains within critical areas that may discharge to a storm drain.

8.X.2.2 *Employee Training.* (See also Part 2.1.2.9) As part of your employee training program, address, at a minimum, the following activities (as applicable): spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

8.X.3 Additional SWPPP Requirements.

8.X.3.1 *Description of Good Housekeeping Measures for Material Storage Areas.* In connection with Part 8.X.2.1.1, describe in the SWPPP the containment area or enclosure for materials stored outdoors.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.Y.1 Covered Stormwater Discharges.

The requirements in Subpart Y apply to stormwater discharges associated with industrial activity from Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries facilities as identified by the SIC Codes specified under Sector Y in Table D-1 of Appendix D of the permit.

8.Y.2 Additional Technology-Based Effluent Limits.

8.Y.2.1 *Controls for Rubber Manufacturers.* (See also Part 2.1.2) Minimize the discharge of zinc in your stormwater discharges. Parts 8.Y.2.1.1 to 8.Y.2.1.5 give possible sources of zinc to be reviewed and list some specific control measures to be considered for implementation (or their equivalents). Following are some general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring an airspace between the container and the cover to minimize "puffing" losses when the container is opened, and using automatic dispensing and weighing equipment.

8.Y.2.1.1 *Zinc Bags.* Ensure proper handling and storage of zinc bags at your facility. Following are some control measure options: employee training on the handling and storage of zinc bags, indoor storage of zinc bags, cleanup of zinc spills without washing the zinc into the storm drain, and the use of 2,500-pound sacks of zinc rather than 50- to 100-pound sacks.

8.Y.2.1.2 *Dumpsters.* Minimize discharges of zinc from dumpsters. Following are some control measure options: covering the dumpster, moving the dumpster indoors, or providing a lining for the dumpster.

8.Y.2.1.3 *Dust Collectors and Baghouses.* Minimize contributions of zinc to stormwater from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

8.Y.2.1.4 *Grinding Operations.* Minimize contamination of stormwater as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

8.Y.2.1.5 *Zinc Stearate Coating Operations.* Minimize the potential for stormwater contamination from drips and spills of zinc stearate slurry that may be released

to the storm drain. One control measure option is to use alternative compounds to zinc stearate.

8.Y.2.2 *Controls for Plastic Products Manufacturers.* Minimize the discharge of plastic resin pellets in your stormwater discharges. Control measures to be considered for implementation (or their equivalents) include minimizing spills, cleaning up of spills promptly and thoroughly, sweeping thoroughly, pellet capturing, employee education, and disposal precautions.

8.Y.3 Additional SWPPP Requirements.

8.Y.3.1 *Potential Pollutant Sources for Rubber Manufacturers.* (See also Part 5.1.3) Document in your SWPPP the use of zinc at your facility and the possible pathways through which zinc may be discharged in stormwater runoff.

8.Y.4 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.Y-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Y1. Rubber Products Manufacturing (SIC 3011, 3021, 3052, 3053, 3061, 3069)	Total Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Zinc (mg/L)
0-25 mg/L	0.04
25-50 mg/L	0.05
50-75 mg/L	0.08
75-100 mg/L	0.11
100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18
175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25
250+ mg/L	0.26

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart Z – Sector Z – Leather Tanning and Finishing.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.Z.1 Covered Stormwater Discharges.

The requirements in Subpart Z apply to stormwater discharges associated with industrial activity from Leather Tanning and Finishing facilities as identified by the SIC Code specified under Sector Z in Table D-1 of Appendix D of the permit.

8.Z.2 Additional Technology-Based Effluent Limits.

8.Z.2.3 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.Z.2.3.1 *Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products.* Minimize contamination of stormwater runoff from pallets and bales of raw, semiprocessed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms (or equivalent measures) around the area to prevent stormwater run-on and runoff.

8.Z.2.3.2 *Material Storage Areas.* Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) minimize contact of such materials with stormwater.

8.Z.2.3.3 *Buffing and Shaving Areas.* Minimize contamination of stormwater runoff with leather dust from buffing and shaving areas. Consider dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.

8.Z.2.3.4 *Receiving, Unloading, and Storage Areas.* Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer, or grade berming or curbing the area to prevent stormwater runoff.

8.Z.2.3.5 *Outdoor Storage of Contaminated Equipment.* Minimize contact of stormwater with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.

8.Z.2.3.6 *Waste Management.* Minimize contamination of stormwater runoff from waste storage areas. Consider the following (or their equivalents): covering

dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing stormwater runoff by enclosing the area or building berms around the area.

8.Z.3 Additional SWPPP Requirements.

8.Z.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in your SWPPP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.

8.Z.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following sources and activities that have potential pollutants associated with them (as appropriate): temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart AA – Sector AA – Fabricated Metal Products

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.AA.1 Covered Stormwater Discharges.

The requirements in Subpart AA apply to stormwater discharges associated with industrial activity from Fabricated Metal Products facilities as identified by the SIC Codes specified under Sector AA in Table D-1 of Appendix D of the permit.

8.AA.2 Additional Technology-Based Effluent Limits.

8.AA.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.AA.2.1.1 *Raw Steel Handling Storage.* Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

8.AA.2.1.2 *Paints and Painting Equipment.* Minimize exposure of paint and painting equipment to stormwater.

8.AA.2.2 *Spill Prevention and Response Procedures.* (See also Part 2.1.2.4) Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed

8.AA.2.2.1 *Metal Fabricating Areas.* Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

8.AA.2.2.2 *Storage Areas for Raw Metal.* Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Consider the following (or their equivalents): maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

8.AA.2.2.3 *Metal Working Fluid Storage Areas.* Minimize the potential for stormwater contamination from storage areas for metal working fluids.

8.AA.2.2.4 *Cleaners and Rinse Water.* Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

8.AA.2.2.5 *Lubricating Oil and Hydraulic Fluid Operations.* Minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations. Consider using monitoring equipment or other devices to detect and control

leaks and overflows. Consider installing perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures.

8.AA.2.2.6 *Chemical Storage Areas.* Minimize stormwater contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

8.AA.2.3 *Spills and Leaks.* (See also Part 5.1.3.3) In your spill prevention and response procedures, required by Part 2.1.2.4, pay attention to the following materials (at a minimum): chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

8.AA.3 Additional SWPPP Requirements.

8.AA.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in your SWPPP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

8.AA.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in your SWPPP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

8.AA.4 Additional Inspection Requirements

8.AA.4.1 *Inspections.* (See also Part 4) At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas.

8.AA.4.2 *Comprehensive Site Inspections.* (See also Part 4.3) As part of your inspection, also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

8.AA.5 Sector-Specific Benchmarks. (See also Part 6 of the permit.)

Table 8.AA-1		
Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector AA1. Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Zinc[1]	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector AA2. Fabricated Metal Coating and Engraving (SIC 3479)	Total Zinc[1]	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix J, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	**Zinc** (mg/L)
0-25 mg/L	0.04
25-50 mg/L	0.05
50-75 mg/L	0.08
75-100 mg/L	0.11
100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18
175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25
250+ mg/L	0.26

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart AB – Sector AB – Transportation Equipment, Industrial or Commercial Machinery Facilities.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.AB.1 Covered Stormwater Discharges.

The requirements in Subpart AB apply to stormwater discharges associated with industrial activity from Transportation Equipment, Industrial or Commercial Machinery facilities as identified by the SIC Codes specified under Sector AB in Table D-1 of Appendix D of the permit.

8.AB.2 Additional SWPPP Requirements.

8.AB.2.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in your SWPPP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart AC– Sector AC –Electronic and Electrical Equipment and Components, Photographic and Optical Goods.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.AC.1 Covered Stormwater Discharges.

The requirements in Subpart AC apply to stormwater discharges associated with industrial activity from facilities that manufacture Electronic and Electrical Equipment and Components, Photographic and Optical goods as identified by the SIC Codes specified in Table D-1 of Appendix D of the permit.

8.AC.2 Additional Requirements.

No additional sector-specific requirements apply.

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart AD – Sector AD – Stormwater Discharges Designated by the Director as Requiring Permits.

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.AD.1 Covered Stormwater Discharges.

Sector AD is used to provide permit coverage for facilities designated by the Director as needing a stormwater permit, and any discharges of stormwater associated with industrial activity that do not meet the description of an industrial activity covered by Sectors A-AC.

8.AD.1.1 *Eligibility for Permit Coverage.* Because this sector is primarily intended for use by discharges designated by the Director as needing a stormwater permit (which is an atypical circumstance), and your facility may or may not normally be discharging stormwater associated with industrial activity, you must obtain the Director's written permission to use this permit prior to submitting an NOI. If you are authorized to use this permit, you will still be required to ensure that your discharges meet the basic eligibility provisions of this permit at Part 1.2.

8.AD.2 Sector-Specific Benchmarks and Effluent Limits. (See also Part 6 of the permit.)

The Director will establish any additional monitoring and reporting requirements for your facility prior to authorizing you to be covered by this permit. Additional monitoring requirements would be based on the nature of activities at your facility and your stormwater discharges.

NPDES MULTI-SECTOR GENERAL PERMITS FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY
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1. Coverage under this Permit.

1.1 Eligibility.

1.1.1 Facilities Covered.

To be eligible to discharge under this permit, you must (1) have a stormwater discharge associated with industrial activity from your primary industrial activity, as defined in Appendix A, provided your primary industrial activity is included in Appendix D, or (2) be notified by EPA that you are eligible for coverage under Sector AD of this permit.

1.1.2 Allowable Stormwater Discharges.

Unless otherwise made ineligible under Part 1.1.4, the following discharges are eligible for coverage under this permit:

1.1.2.1 Stormwater discharges associated with industrial activity for any primary industrial activities and co-located industrial activities, as defined in Appendix A;

1.1.2.2 Discharges designated by EPA as needing a stormwater permit as provided in Sector AD;

1.1.2.3 Discharges that are not otherwise required to obtain NPDES permit authorization but are commingled with discharges that are authorized under this permit;

1.1.2.4 Discharges subject to any of the national stormwater-specific effluent limitations guidelines listed in Table 1-1; and

Table 1-1. Stormwater-specific Effluent Limitations Guidelines

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	A	Yes	1/26/81
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	Yes	4/8/74
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	Yes	7/28/75
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E	Yes	2/20/74

Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, and D	J	No	N/A
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B	K, L	Yes	2/2/00
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	Yes	11/19/82 (10/8/74)[1]

1.1.2.5 Discharges subject to any New Source Performance Standards (NSPS) identified in Table 1-1 (i.e., where facilities were constructed after the promulgation of that industry's NSPS), provided that you obtain and retain the following EPA documentation with your SWPPP, prior to submitting your NOI, and that you comply with any limits pursuant to Part 2.4:

- Determination of "No Significant Impact" under the National Environmental Policy Act (NEPA); or
- A completed Environmental Impact Statement in accordance with an environmental review conducted by EPA pursuant to 40 CFR 6.102(a)(6)[2].

1.1.3 Allowable Non-Stormwater Discharges.

The following are the non-stormwater discharges authorized under this permit, provided the non-stormwater component of your discharge is in compliance with Part 2.1.2.10:

- Discharges from fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- Routine external building washdown that does not use detergents;
- Uncontaminated ground water or spring water;

[1] NSPS promulgated in 1974 were not removed via the 1982 regulation; therefore wastewaters generated by Part 423-applicable sources that were New Sources under the 1974 regulations are subject to the 1974 NSPS.

[2] Note that if you have previously completed an Environmental Impact Statement or obtained a "No Significant Impact" statement for discharges subject to NSPS, you have met your obligation under this provision and you only need to retain this documentation for your files.

- Foundation or footing drains where flows are not contaminated with process materials; and
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

1.1.4 Limitations on Coverage.

1.1.4.1 Discharges Mixed with Non-Stormwater. Stormwater discharges that are mixed with non-stormwater, other than those non-stormwater discharges listed in Part 1.1.3, are not eligible for coverage under this permit.

1.1.4.2 Stormwater Discharges Associated with Construction Activity. Stormwater discharges associated with construction activity disturbing one acre or more are not eligible for coverage under this permit, unless in conjunction with mining activities or certain oil and gas extraction activities as specified in Sectors G, H, I, and J of this permit.

1.1.4.3 Discharges Currently or Previously Covered by Another Permit. Unless you received written notification from EPA specifically allowing these discharges to be covered under this permit, you are not eligible for coverage under this permit for any of the following:

- Stormwater discharges associated with industrial activity that are currently covered under an individual NPDES permit or an alternative NPDES general permit;
- Discharges covered within five years prior to the effective date of this permit by an individual permit or alternative general permit where that permit established site-specific numeric water quality-based limitations developed for the stormwater component of the discharge; or
- Discharges from facilities where any NPDES permit has been or is in the process of being denied, terminated, or revoked by EPA (this does not apply to the routine reissuance of permits every five years).

1.1.4.4 Stormwater Discharges Subject to Effluent Limitations Guidelines. For discharges subject to stormwater effluent limitation guidelines under 40 CFR, Subchapter N, only those stormwater discharges identified in Table 1-1 are eligible for coverage under this permit.

1.1.4.5 Endangered and Threatened Species and Critical Habitat Protection. Coverage under this permit is available only if your stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities will not adversely affect any species that are federally-listed as endangered or threatened ("listed") under the Endangered Species Act (ESA) and will not result in the adverse modification or destruction of habitat that is federally-designated as "critical habitat" under the ESA. You must meet one of the criteria below, following the procedures in Appendix E:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat are likely to occur in the "action area" as defined in Appendix A; or

Criterion B. Consultation between a Federal agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service (together, the "Services") under section 7 of the ESA has been concluded. Consultations can be either formal or informal, and would have occurred only as a result of a separate federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit).

The consultation must have addressed the effects of your facility's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in either:

i. a biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat; or

ii. written concurrence from the Service(s) with a finding that the facility's stormwater discharges associated with industrial activity, discharge-related activities and allowable non-stormwater discharges are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion C. Your industrial activities are authorized through the issuance of a permit under section 10 of the ESA, and authorization addresses the effects of the stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges on federally-listed species and federally-designated critical habitat; or

Criterion D. Coordination between you and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service has been concluded. The coordination must have addressed the effects of the facility's stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges on federally-listed threatened or endangered species and federally-designated critical habitat. The result of the coordination must be a written statement from the Service concluding that authorizing your stormwater discharges, discharge-related activities, and allowable non-stormwater discharges is consistent with the determination that the issuance of the MSGP is not likely to adversely affect federally-listed threatened or endangered species and federally-designated critical habitat. Any conditions or prerequisites deemed necessary to achieve consistency with the "not likely to adversely effect" determination become eligibility conditions for MSGP coverage, and permit requirements under Part 2.3; or

Criterion E. Authorizing your stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges is

consistent with the determination that the issuance of the MSGP is not likely to adversely affect any federally-listed endangered and threatened ("listed") species or designated critical habitat ("critical habitat"). To support your determination that you meet Criterion E, you must provide supporting documentation for your determination.

i. If you are an existing discharger, you must provide the following information with your completed Notice of Intent (NOI) form: (1) a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the "action area"; (2) a list of the pollutant parameters for which you have ever exceeded an applicable benchmark or effluent limitations guideline, or for which your discharge has ever been found to cause or contribute to an exceedance of an applicable water quality standard, or to violate State or Tribal water quality requirements (Part 9); and (3) your rationale supporting your determination that you meet Criterion E, including appropriate measures to be undertaken to avoid or eliminate the likelihood of adverse effects.

ii. If you are a new discharger, you must provide the following information with your completed NOI form: (1) a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the "action area"; (2) a list of the potential pollutants in your discharge; and (3) your rationale supporting your determination that you meet Criterion E, including appropriate measures to be undertaken to avoid or eliminate the likelihood of adverse effects; or

Criterion F. The facility's stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges were already addressed in another operator's valid certification of eligibility that included these discharges and activities and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify eligibility under this criterion there must be no lapse of coverage in the other operator's certification. By certifying eligibility under this criterion, you agree to comply with any measures or controls upon which the other operator's certification was based. You must comply with any applicable terms, conditions, or other requirements developed in the process of meeting the eligibility requirements of the criteria in this section to remain eligible for coverage under this permit. If your certification is based on another operator's certification under Criterion E, that certification is valid only if you have documentation showing that the other operator had certified under Criterion E, and you provide EPA with the supporting information required of existing dischargers in Criterion E (above, under subparagraph (i)) in your NOI form.

1.1.4.6 Historic Properties Preservation. Coverage under this permit is available only if your stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-

related activities meet one of the eligibility criteria below, following the procedures in Appendix F:

Criterion A. Your stormwater discharges and allowable non-stormwater discharges do not have the potential to have an effect on historic properties and you are not constructing or installing new stormwater control measures on your site that cause subsurface disturbance; or

Criterion B. Your discharge-related activities (i.e., construction and/or installation of stormwater control measures that involve subsurface disturbance) will not affect historic properties; or

Criterion C. Your stormwater discharges, allowable non-stormwater discharges, and discharge-related activities have the potential to have an effect on historic properties, and you have consulted with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representative regarding measures to mitigate or prevent any adverse effects on historic properties, and you have either (1) obtained and are in compliance with a written agreement that outlines all such measures, or (2) been unable to reach agreement on such measures; or

Criterion D. You have contacted the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other tribal representative and EPA in writing informing them that you have the potential to have an effect on historic properties and you did not receive a response from the SHPO, THPO, or tribal representative within 30 days of receiving your letter.

If you have been unable to reach agreement with a SHPO, THPO, or other tribal representative regarding appropriate measures to mitigate or prevent adverse effects, EPA may notify you of additional measures you must implement to be eligible for coverage under this permit.

1.1.4.7 New Discharges to Water Quality Impaired Waters. If you are a new discharger you are not eligible for coverage under this permit to discharge to an "impaired water", as defined in Appendix A unless you:

a. prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and retain documentation of procedures taken to prevent exposure onsite with your SWPPP; or

b. document that the pollutant(s) for which the waterbody is impaired is not present at your site, and retain documentation of this finding with your SWPPP; or

c. in advance of submitting your NOI, provide to the appropriate EPA Regional Office data to support a showing that the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retain such data

onsite with your SWPPP. To do this, you must provide data and other technical information to the Regional Office sufficient to demonstrate:

i. For discharges to waters without an EPA approved or established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; or

ii. For discharges to waters with an EPA approved or established TMDL, that there are sufficient remaining wasteload allocations in an EPA approved or established TMDL to allow your discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

You are eligible under Part 1.1.4.7.c if you receive an affirmative determination from the Regional Office that your discharge will not contribute to the existing impairment, in which case you must maintain such determination onsite with your SWPPP, or if the Regional Office fails to respond within 30 days of submission of data to the Regional Office.

1.1.4.8 New Discharges to Waters Designated as Tier 3 for Antidegradation Purposes. If you are a new discharger, you are not eligible for coverage under this permit for discharges to waters designated by a State or Tribe as Tier 3 (outstanding natural resource waters) for antidegradation purposes under 40 CFR 131.13(a)(3) (see list of Tier 3 waters on EPA's website at http://www.epa.gov/npdes/stormwater/msgp).

1.2 Permit Compliance.

Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act. As detailed in Part 3 (Corrective Actions) of this permit, failure to take any required corrective actions constitute an independent, additional violation of this permit and the Clean Water Act. As such, any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying noncompliance. However, where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided you take the required corrective action within the relevant deadlines established in Part 3.3.

1.3 Authorization under this Permit.

1.3.1 How to Obtain Authorization.

To obtain authorization under this permit, you must:

- Be located in a State, territory, or Indian Country, or be a Federal Facility identified in Appendix C where EPA is the permitting authority;
- Meet the Part 1.1 eligibility requirements;

- Select, design, install, and implement control measures in accordance with Part 2.1 to meet numeric and non-numeric effluent limits;
- Submit a complete and accurate Notice of Intent (NOI) either using EPA's electronic Notice of Intent (eNOI) system (accessible at www.epa.gov/npdes/eNOI) or using a paper form (included in Appendix G of this permit) and then submitting that paper form to the address listed in Part 7.6.1; and
- Develop a SWPPP according to the requirements in Part 5 of this permit.

EPA will post on the Internet, at www.epa.gov/npdes/noisearch, all NOIs received. Late NOIs will be accepted but authorization to discharge will not be retroactive.

Timeframes for discharge authorization are contained in Table 1-2. Some authorization dates in Table 1-2 are dependent on you posting a copy of your SWPPP on the Internet. Posting requires that (1) your NOI identifies the Uniform Resource Locator (URL) that provides direct access to your SWPPP, (2) you post a complete copy of your SWPPP at that URL, and (3) the SWPPP is available from that URL at least for the period starting the day you submit your NOI until you are authorized to discharge. You are not required to post any confidential business information (CBI) at this URL, but you must clearly identify those portions of the SWPPP that are being withheld from public access as a result of your determination of CBI.

Table 1-2. NOI Submittal Deadlines/Discharge Authorization Dates		
Category	**NOI Submission Deadline**	**Discharge Authorization Date[1]**
Existing Dischargers – in operation as of October 30, 2005 and authorized for coverage under MSGP 2000.	No later than January 5, 2009.	30 days after EPA posts your NOI. Your authorization under the MSGP 2000 is automatically continued until you have been granted coverage under this permit or an alternative permit, or coverage is otherwise terminated.
New Dischargers or New Sources - have commenced discharging between October 30, 2005 and January 5, 2009.	As soon as possible but no later than January 5, 2009.	30 days after EPA posts your NOI.
New Dischargers or New Sources - commence discharging after January 5, 2009.	A minimum of 60 days prior to commencing discharge, or a minimum of 30 days if your SWPPP is posted on the Internet during this period and the Internet address (i.e., URL) to your SWPPP is provided on the NOI form.	If you post your SWPPP on the Internet, 30 days after EPA posts your NOI. Otherwise, 60 days after EPA posts your NOI.
New Owner/Operator of Existing Discharger - transfer of ownership and/or operation of a facility whose discharge is authorized under this permit	A minimum of 30 days prior to date that the transfer will take place to the new owner/operator.	30 days after EPA posts your NOI.
Other Eligible Dischargers - in operation prior to October 30, 2005, but not covered under the MSGP 2000 or another NPDES permit.	Immediately, to minimize the time discharges from the facility will continue to be unauthorized.	If you post your SWPPP on the Internet, 30 days after EPA posts your NOI. Otherwise, 60 days after EPA posts your NOI.

[1] Based on a review of your NOI or other information, EPA may delay your authorization for further review, notify you that additional effluent limitations are necessary, or may deny coverage under this permit and require submission of an application for an individual NPDES permit, as detailed in Part 1.6. In these instances, EPA will notify you in writing of the delay, of the need for additional effluent limits, or of the request for submission of an individual NPDES permit application.

1.3.2 Continuation of this Permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 CFR 122.6 and remain in force and effect. If

you were authorized to discharge under this permit prior to the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of:

- Your authorization for coverage under a reissued permit or a replacement of this permit following your timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or
- Your submittal of a Notice of Termination; or
- Issuance or denial of an individual permit for the facility's discharges; or
- A formal permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.

1.4 Terminating Coverage.

1.4.1 Submitting a Notice of Termination.

To terminate permit coverage, you must submit a complete and accurate Notice of Termination either electronically (strongly encouraged) at www.epa.gov/npdes/eNOI or using the paper Notice of Termination form included in Appendix H of this permit, to the address listed in Part 7.6.1. Your authorization to discharge under this permit terminates at midnight of the day that a complete Notice of Termination is processed and posted on EPA's website (www.epa.gov/npdes/noisearch). If you submit a Notice of Termination without meeting one or more of the conditions identified in Part 1.4.2, then your Notice of Termination is not valid. You are responsible for meeting the terms of this permit until your authorization is terminated.

1.4.2 When to Submit a Notice of Termination.

You must submit a Notice of Termination within 30 days after one or more of the following conditions have been met:

- A new owner or operator has taken over responsibility for the facility; or
- You have ceased operations at the facility, there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5;
- You are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- You have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless EPA has required that you obtain such coverage under authority of Part 1.6.1, in which case coverage under this permit will terminate automatically.

1.5 Conditional Exclusion for No Exposure.

If you are covered by this permit, and become eligible for a no exposure exclusion from permitting under 40 CFR 122.26(g), you may file a No Exposure Certification. You are no longer required to have a permit upon submission of a complete and accurate no exposure certification to EPA. If you are no longer required to have permit coverage because of a no exposure exclusion and have submitted a No Exposure Certification form to EPA, you are not required to submit a Notice of Termination. You must submit a No Exposure Certification to EPA once every five years. File your No Exposure Certification using the eNOI system at www.epa.gov/npdes/eNOI.

1.6 Alternative Permits.

1.6.1 EPA Requiring Coverage under an Alternative Permit.

EPA may require you to apply for and/or obtain authorization to discharge under either an individual NPDES permit or an alternative NPDES general permit in accordance with 40 CFR 122.64 and 124.5. Any interested person may petition EPA to take action under this paragraph. If EPA requires you to apply for an individual NPDES permit, EPA will notify you in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and will provide application information. In addition, if you are an existing discharger authorized to discharge under this permit, the notice will set a deadline to file the permit application, and will include a statement that on the effective date of the individual NPDES permit, or the alternative general permit as it applies to you, coverage under this general permit will terminate. EPA may grant additional time to submit the application if you request it. If you are covered under this permit and fail to submit an individual NPDES permit application as required by EPA, then the applicability of this permit to you is terminated at the end of the day specified by EPA as the deadline for application submittal. EPA may take appropriate enforcement action for any unpermitted discharge.

1.6.2 Permittee Requesting Coverage under an Alternative Permit.

You may request to be excluded from coverage under this general permit by applying for an individual permit. In such a case, you must submit an individual permit application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to EPA at the applicable EPA Regional Office listed in Part 7.6.2 of this permit. The request may be granted by issuance of an individual permit or authorization of coverage under an alternative general permit if your reasons are adequate to support the request.

When an individual NPDES permit is issued to you or you are authorized to discharge under an alternative NPDES general permit, your authorization to discharge under this permit is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

1.7 Severability.

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA's intent is that the permit is to remain in effect to the extent possible; in the event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

2. Control Measures and Effluent Limits.

In the technology-based limits included in Part 2.1 and in Part 8, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

2.1 Control Measures.

You must select, design, install, and implement control measures (including best management practices) to address the selection and design considerations in Part 2.1.1, meet the non-numeric effluent limits in Part 2.1.2, and meet limits contained in applicable effluent limitations guidelines in Part 2.1.3. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications. Note that you may deviate from such manufacturer's specifications where you provide justification for such deviation and include documentation of your rationale in the part of your SWPPP that describes your control measures, consistent with Part 5.1.4. If you find that your control measures are not achieving their intended effect of minimizing pollutant discharges, you must modify these control measures as expeditiously as practicable. Regulated stormwater discharges from your facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at your facility.

2.1.1 Control Measure Selection and Design Considerations

You must consider the following when selecting and designing control measures:

- preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater;
- using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in your stormwater discharge;
- assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;
- minimizing impervious areas at your facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;

- attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
- conserving and/or restoring of riparian buffers will help protect streams from stormwater runoff and improve water quality; and
- using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

2.1.2 Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT).

2.1.2.1 Minimize Exposure. You must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, you should pay particular attention to the following:

- use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);
- clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;
- use spill/overflow protection equipment;
- drain fluids from equipment and vehicles prior to on-site storage or disposal;
- perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- ensure that all washwater drains to a proper collection system (i.e., not the stormwater drainage system).

The discharge of vehicle and equipment washwater, including tank cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

Note: Industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving waters or if discharges are authorized under another NPDES permit.

2.1.2.2 Good Housekeeping. You must keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.

2.1.2.3 Maintenance. You must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters. You must maintain all control measures that are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If you find that your control measures need to be replaced or repaired, you must make the necessary repairs or modifications as expeditiously as practicable.

2.1.2.4 Spill Prevention and Response Procedures. You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum, you must implement:

- Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team (see Part 5.1.1); and
- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

2.1.2.5 Erosion and Sediment Controls. You must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions you must take to meet this limit, you must place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with EPA's internet-based resources relating to BMPs for erosion and sedimentation, including the sector-specific *Industrial Stormwater*

Fact Sheet Series, (www.epa.gov/npdes/stormwater/msgp), *National Menu of Stormwater BMPs* (www.epa.gov/npdes/stormwater/menuofbmps), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications.

2.1.2.6 Management of Runoff. You must divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in your discharges. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with EPA's internet-based resources relating to runoff management, including the sector-specific *Industrial Stormwater Fact Sheet Series*, (www.epa.gov/npdes/stormwater/msgp), *National Menu of Stormwater BMPs* (www.epa.gov/npdes/stormwater/menuofbmps), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications.

2.1.2.7 Salt Storage Piles or Piles Containing Salt. You must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. You must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

2.1.2.8 Sector Specific Non-Numeric Effluent Limits. You must achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 8.

2.1.2.9 Employee Training. You must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team. Training must cover both the specific control measures used to achieve the effluent limits in this Part, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. EPA recommends training be conducted at least annually (or more often if employee turnover is high).

2.1.2.10 Non-Stormwater Discharges. You must eliminate non-stormwater discharges not authorized by an NPDES permit. See Part 1.2.3 for a list of non-stormwater discharges authorized by this permit.

2.1.2.11 Waste, Garbage and Floatable Debris. You must ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

2.1.2.12 Dust Generation and Vehicle Tracking of Industrial Materials. You must minimize generation of dust and off-site tracking of raw, final, or waste materials.

2.1.3 Numeric Effluent Limitations Based on Effluent Limitations Guidelines

If you are in an industrial category subject to one of the effluent limitations guidelines identified in Table 6-1 (see Part 6.2.2.1), you must meet the effluent limits referenced in Table 2-1 below:

Table 2-1. Applicable Effluent Limitations Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.5
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.9
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8

2.2 Water Quality-Based Effluent Limitations.

2.2.1 Water Quality Standards

Your discharge must be controlled as necessary to meet applicable water quality standards.

EPA expects that compliance with the other conditions in this permit will control discharges as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that your discharge causes or contributes to an exceedance of applicable water quality standards, you must take corrective action as required in Part 3.1, document the corrective actions as required in Parts 3.4 and 5.4, and report the corrective actions to EPA as required in Part 7.2.

Additionally, EPA may impose additional water quality-based limitations on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI, required reports, or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards.

2.2.2 Discharges to Water Quality Impaired Waters.

2.2.2.1 Existing Discharge to an Impaired Water with an EPA Approved or Established TMDL. If you discharge to an impaired water with an EPA approved or established TMDL, EPA will inform you if any additional limits or controls are necessary for your discharge to be consistent with the assumptions of any available wasteload allocation in the TMDL, or if coverage under an individual permit is necessary in accordance with Part 1.6.1.

2.2.2.2 Existing Discharge to an Impaired Water without an EPA Approved or Established TMDL. If you discharge to an impaired water without an EPA approved or established TMDL, you are required to comply with Part 2.2.1 and the monitoring requirement of Part 6.2.4. Note that this provision also applies to situations where EPA determines that your discharge is not controlled as necessary to meet water quality standards in a downstream water segment, even if your discharge is to a receiving water that is not specifically identified on a Section 303(d) list.

2.2.2.3 New Discharge to an Impaired Water. If your authorization to discharge under this permit relied on Part 1.1.4.7 for a new discharge to an impaired water, you must implement and maintain any control measures or conditions on your site that enabled you to become eligible under Part 1.1.4.7, and modify such measures or conditions as necessary pursuant to any Part 3 corrective actions. You are also required to comply with Part 2.2.1 and the monitoring requirements of Parts 6.2.4.

2.2.3 Tier 2 Antidegradation Requirements for New or Increased Dischargers

If you are a new discharger, or an existing discharger required to notify EPA of an increased discharge consistent with Part 7.4 (i.e., a "planned changes" report), and you discharge directly to waters designated by a State or Tribe as Tier 2 or Tier 2.5 for antidegradation purposes under 40 CFR 131.12(a) (see list of Tier 2 and 2.5 waters on EPA's website at http://www.epa.gov/npdes/stormwater/msgp), EPA may notify you that additional analyses, control measures, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part 1.6.1.

2.3 Requirements Relating to Endangered Species and Historic Properties

If your eligibility under either Part 1.1.4.5 or Part 1.1.4.6 was made possible through your, or another operator's, agreement to include certain measures or prerequisite actions, or implement certain terms and conditions, you must comply with all such agreed-upon requirements to maintain eligibility under the MSGP.

2.4 Requirements Relating to the National Environmental Policy Act (NEPA) Review

If your eligibility under Part 1.1.2.5 was made possible through your agreement to implement any mitigation measures as a result of the NEPA review process, you must comply with all such agreed-upon measures to maintain eligibility under the MSGP.

3. Corrective Actions

3.1 Conditions Requiring Review and Revision to Eliminate Problem

If any of the following conditions occur, you must review and revise the selection, design, installation, and implementation of your control measures to ensure that the condition is eliminated and will not be repeated in the future:

- an unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit) occurs at your facility;
- a discharge violates a numeric effluent limit;
- you become aware, or EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
- an inspection or evaluation of your facility by an EPA official, or local, State, or Tribal entity, determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- you find in your routine facility inspection, quarterly visual assessment, or comprehensive site inspection that your control measures are not being properly operated and maintained.

3.2 Conditions Requiring Review to Determine if Modifications Are Necessary

If any of the following conditions occur, you must review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limits in this permit:

- construction or a change in design, operation, or maintenance at your facility significantly changes the nature of pollutants discharged in stormwater from your facility, or significantly increases the quantity of pollutants discharged; or
- the average of 4 quarterly sampling results exceeds an applicable benchmark. If less than 4 benchmark samples have been taken, but the results are such that an exceedence of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedence, triggering this review.

3.3 Corrective Action Deadlines

You must document your discovery of any of the conditions listed in Parts 3.1 and 3.2 within 24 hours of making such discovery. Subsequently, within 14 days of such discovery, you

must document any corrective action(s) to be taken to eliminate or further investigate the deficiency, or if no corrective action is needed, the basis for that determination. Specific documentation required within 24 hours and 14 days is detailed in Part 3.4. If you determine that changes are necessary following your review, any modifications to your control measures must be made before the next storm event if possible, or as soon as practicable following that storm event. These time intervals are not grace periods, but are schedules considered reasonable for documenting your findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

3.4 Corrective Action Report

Within 24 hours of discovery of any condition listed in Parts 3.1 and 3.2, you must document the following information (i.e., questions 3-5 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix I):

- Identification of the condition triggering the need for corrective action review;
- Description of the problem identified; and
- Date the problem was identified.

Within 14 days of discovery of any condition listed in Parts 3.1 and 3.2, you must document the following information (i.e., questions 7-11 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix I):

- Summary of corrective action taken or to be taken (or, for triggering events identified in Part 3.2 where you determine that corrective action is not necessary, the basis for this determination);
- Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
- Date corrective action initiated; and
- Date corrective action completed or expected to be completed.

You must submit this documentation in an annual report as required in Part 7.2 and retain a copy onsite with your SWPPP as required in Part 5.4.

3.5 Effect of Corrective Action

If the event triggering the review is a permit violation (e.g., non-compliance with an effluent limit), correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

3.6 Substantially Identical Outfalls

If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, your review must assess the need for corrective action for each outfall represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event.

4. Inspections

You must conduct the inspections in Parts 4.1, 4.2, and 4.3 at your facility.

4.1 Routine Facility Inspections.

4.1.1 Routine Facility Inspection Procedures.

Conduct routine facility inspections of all areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the effluent limits contained in this permit. Routine facility inspections must be conducted at least quarterly (i.e., once each calendar quarter) although in many instances, more frequent inspection (e.g., monthly) may be appropriate for some types of equipment, processes, and control measures or areas of the facility with significant activities and materials exposed to stormwater. Perform these inspections during periods when the facility is in operation. You must specify the relevant inspection schedules in your SWPPP document as required in Part 5.1.5. These routine inspections must be performed by qualified personnel (for definition see Appendix A) with at least one member of your stormwater pollution prevention team participating. At least once each calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring.

4.1.2 Routine Facility Inspection Documentation.

You must document the findings of each routine facility inspection performed and maintain this documentation onsite with your SWPPP as required in Part 5.4. You are not required to submit your routine facility inspection findings to EPA, unless specifically requested to do so. At a minimum, your documentation of each routine facility inspection must include:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information and a description of any discharges occurring at the time of the inspection;
- Any previously unidentified discharges of pollutants from the site;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any incidents of noncompliance observed; and
- Any additional control measures needed to comply with the permit requirements.

Any corrective action required as a result of a routine facility inspection must be performed consistent with Part 3 of this permit.

4.1.3 Exceptions to Routine Facility Inspections.

Inactive and Unstaffed Sites: The requirement to conduct routine facility inspections on a quarterly basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. Such a facility is only required to conduct an annual comprehensive site inspection in accordance with the requirements of Part 4.3. To invoke this exception, you must maintain a statement in your SWPPP pursuant to Part 5.1.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately resume quarterly facility inspections. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must include the same signed and certified statement as above and retain it with your records pursuant to Part 5.4.

Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the "no industrial materials or activities exposed to stormwater" standard to be eligible for this exception from routine inspections, consistent with the requirements established in Parts 8.G.8.4, 8.H.8.1, and 8.J.8.1.

4.2 Quarterly Visual Assessment of Stormwater Discharges.

4.2.1 Quarterly Visual Assessment Procedures.

Once each quarter for the entire permit term, you must collect a stormwater sample from each outfall (except as noted in Part 4.2.3) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the stormwater discharge.

The visual assessment must be made:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30

minutes and you must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from your site; and

- For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if you document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

You must visually inspect the sample for the following water quality characteristics:

- Color;
- Odor;
- Clarity;
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of stormwater pollution.

4.2.2 Quarterly Visual Assessment Documentation.

You must document the results of your visual assessments and maintain this documentation onsite with your SWPPP as required in Part 5.4. You are not required to submit your visual assessment findings to EPA, unless specifically requested to do so. At a minimum, your documentation of the visual assessment must include:

- Sample location(s)
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination,
- If applicable, why it was not possible to take samples within the first 30 minutes.

Any corrective action required as a result of a quarterly visual assessment must be performed consistent with Part 3 of this permit.

4.2.3 Exceptions to Quarterly Visual Assessments.

Adverse Weather Conditions: When adverse weather conditions prevent the collection of samples during the quarter, you must take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter must be included with your SWPPP records as described in Part 5.4. Adverse conditions are

those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.

Climates with Irregular Stormwater Runoff: If your facility is located in an area where limited rainfall occurs during many parts of the year (e.g., arid or semi-arid climate) or in an area where freezing conditions exist that prevent runoff from occurring for extended periods, then your samples for the quarterly visual assessments may be distributed during seasons when precipitation runoff occurs.

Areas Subject to Snow: In areas subject to snow, at least one quarterly visual assessment must capture snowmelt discharge, as described in Part 6.1.3, taking into account the exception described above for climates with irregular stormwater runoff.

Inactive and unstaffed sites: The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must maintain a statement in your SWPPP as required in Part 5.1.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately resume quarterly visual assessments. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must include the same signed and certified statement as above and retain it with your records pursuant to Part 5.4.

Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the "no industrial materials or activities exposed to stormwater" standard to be eligible for this exception from quarterly visual assessment, consistent with the requirements established in Parts 8.G.8.4, 8.H.8.1, and 8.J.8.1.

Substantially identical outfalls: If your facility has two or more outfalls that you believe discharge substantially identical effluents, as documented in Part 5.1.5.2, you may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that you perform visual assessments on a rotating basis of each substantially identical outfall throughout the period of your coverage under this permit.

If stormwater contamination is identified through visual assessment performed at a substantially identical outfall, you must assess and modify your control measures as appropriate for each outfall represented by the monitored outfall.

4.3 Comprehensive Site Inspections.

4.3.1 Comprehensive Site Inspection Procedures.

You must conduct annual comprehensive site inspections while you are covered under this permit. Annual, as defined in this Part, means once during each of the following inspection periods beginning with the period you are authorized to discharge under this permit:

Year 1: September 29, 2008 – September 29, 2009
Year 2: September 29, 2009 – September 29, 2010
Year 3: September 29, 2010 – September 29, 2011
Year 4: September 29, 2011 – September 29, 2012
Year 5: September 29, 2012 – September 29, 2013

You are waived from having to perform a comprehensive site inspection for an inspection period, as defined above, if you obtain authorization to discharge less than three months before the end of that inspection period.

Should your coverage be administratively continued after the expiration date of this permit, you must continue to perform these inspections annually until you are no longer covered.

Comprehensive site inspections must be conducted by qualified personnel with at least one member of your stormwater pollution prevention team participating in the comprehensive site inspections.

Your comprehensive site inspections must cover all areas of the facility affected by the requirements in this permit, including the areas identified in the SWPPP as potential pollutant sources (see Part 5.1.3) where industrial materials or activities are exposed to stormwater, any areas where control measures are used to comply with the effluent limits in Part 2, and areas where spills and leaks have occurred in the past 3 years. The inspections must also include a review of monitoring data collected in accordance with Part 6.2. Inspectors must consider the results of the past year's visual and analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.

Stormwater control measures required by this permit must be observed to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected.

Your annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

4.3.2 Comprehensive Site Inspection Documentation.

You must document the findings of each comprehensive site inspection and maintain this documentation onsite with your SWPPP as required in Part 5.4. In addition, you must submit this documentation in an annual report as required in Part 7.2. At a minimum, your documentation of the comprehensive site inspection must include (see the Annual Reporting Form included as Appendix I):

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the examination of areas of your facility identified in Part 4.3.1;
- All observations relating to the implementation of your control measures including:
  - previously unidentified discharges from the site,
  - previously unidentified pollutants in existing discharges,
  - evidence of, or the potential for, pollutants entering the drainage system;
  - evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring, and
  - additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- A statement, signed and certified in accordance with Appendix B, Subsection 11 of the permit.

Any corrective action required as a result of the comprehensive site inspection must be performed consistent with Part 3 of this permit.

5. Stormwater Pollution Prevention Plan (SWPPP).

You must prepare a SWPPP for your facility before submitting your Notice of Intent (NOI) for permit coverage. If you prepared a SWPPP for coverage under a previous NPDES permit, you must review and update the SWPPP to implement all provisions of this permit prior to submitting your NOI. The SWPPP does not contain effluent limitations; the limitations are contained in Part 2 of the permit, and for some sectors, Parts 8 and 9 of the permit. The SWPPP is intended to document the selection, design, and installation of control measures. As distinct from the SWPPP, the additional documentation requirements (see Part 5.4) are intended to

document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements.

5.1 Contents of Your SWPPP.

For coverage under this permit, your SWPPP must contain all of the following elements:

- Stormwater pollution prevention team (see Part 5.1.1);
- Site description (see Part 5.1.2);
- Summary of potential pollutant sources (see Part 5.1.3);
- Description of control measures (see Part 5.1.4);
- Schedules and procedures (see Part 5.1.5);
- Documentation to support eligibility considerations under other federal laws (see Part 5.1.6); and
- Signature requirements (see Part 5.1.7).

Where your SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant portions of those documents must be kept with your SWPPP.

5.1.1 Stormwater Pollution Prevention Team.

You must identify the staff members (by name or title) that comprise the facility's stormwater pollution prevention team as well as their individual responsibilities. Your stormwater pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and your SWPPP.

5.1.2 Site Description.

Your SWPPP must include the following:

- *Activities at the Facility.* Provide a description of the nature of the industrial activities at your facility.
- *General location map*. Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.
- *Site map.* Provide a map showing:
  - the size of the property in acres;
  - the location and extent of significant structures and impervious surfaces;
  - directions of stormwater flow (use arrows);
  - locations of all existing structural control measures;

- locations of all receiving waters in the immediate vicinity of your facility, indicating if any of the waters are impaired and, if so, whether the waters have TMDLs established for them;
- locations of all stormwater conveyances including ditches, pipes, and swales;
- locations of potential pollutant sources identified under Part 5.1.3.2;
- locations where significant spills or leaks identified under Part 5.1.3.3 have occurred;
- locations of all stormwater monitoring points;
- locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating if you are treating one or more outfalls as "substantially identical" under Parts 4.2.3, 5.1.5.2, and 6.1.1, and an approximate outline of the areas draining to each outfall;
- municipal separate storm sewer systems, where your stormwater discharges to them;
- locations and descriptions of all non-stormwater discharges identified under Part 2.1.2.10;
- locations of the following activities where such activities are exposed to precipitation:
  - fueling stations;
  - vehicle and equipment maintenance and/or cleaning areas;
  - loading/unloading areas;
  - locations used for the treatment, storage, or disposal of wastes;
  - liquid storage tanks;
  - processing and storage areas;
  - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
  - transfer areas for substances in bulk; and
  - machinery; and
- locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.

5.1.3 Summary of Potential Pollutant Sources.

You must document areas at your facility where industrial materials or activities are exposed to stormwater and from which allowable non-stormwater discharges are released. *Industrial materials or activities* include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. *Material handling activities* include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

5.1.3.1 Activities in the area. A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

5.1.3.2 Pollutants. A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to stormwater in the 3 years prior to the date you prepare or amend your SWPPP.

5.1.3.3 Spills and Leaks. You must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. You must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date you prepare or amend your SWPPP.

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

5.1.3.4 Non-Stormwater Discharges. You must document that you have evaluated for the presence of non-stormwater discharges and that all unauthorized discharges have been eliminated. Documentation of your evaluation must include:

- The date of any evaluation;
- A description of the evaluation criteria used;
- A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
- The different types of non-stormwater discharge(s) and source locations; and
- The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge.

5.1.3.5 Salt Storage. You must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.

5.1.3.6 Sampling Data. You must summarize all stormwater discharge sampling data collected at your facility during the previous permit term.

5.1.4 Description of Control Measures.

5.1.4.1 Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits. You must document the location and type of control measures you have installed and implemented at your site to achieve the non-numeric effluent limits in Part 2.1.2, and where applicable in Part 8, the effluent limitations guidelines-based limits in Part 2.1.3,

the water quality-based effluent limits in Part 2.2, and any agreed-upon endangered species or NEPA-related requirements in Parts 2.3 and 2.4, and describe how you addressed the control measure selection and design considerations in Part 2.1.1. This documentation must describe how the control measures at your site address both the pollutant sources identified in Part 5.1.3, and any stormwater run-on that commingles with any discharges covered under this permit.

5.1.5 Schedules and Procedures

5.1.5.1 Pertaining to Control Measures Used to Comply with the Effluent Limits in Part 2. The following must be documented in your SWPPP:

- Good Housekeeping (See Part 2.1.2.2) – A schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;
- Maintenance (See Part 2.1.2.3) – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line;
- Spill Prevention and Response Procedures (See Part 2.1.2.4) – Procedures for preventing and responding to spills and leaks. You may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that you keep a copy of that other plan onsite and make it available for review consistent with Part 5.3; and
- Employee Training (Part 2.1.2.9) – A schedule for all types of necessary training.

5.1.5.2 Pertaining to Monitoring and Inspection. You must document in your SWPPP your procedures for conducting the five types of analytical monitoring specified by this permit, where applicable to your facility, including:

- Benchmark monitoring (see Part 6.2.1);
- Effluent limitations guidelines monitoring (see Part 6.2.2);
- State- or Tribal-specific monitoring (see Part 6.2.3);
- Impaired waters monitoring (see Part 6.2.4); and
- Other monitoring as required by EPA (see Part 6.2.5).

For each type of monitoring, your SWPPP must document:

- Locations where samples are collected, including any determination that two or more outfalls are substantially identical;
- Parameters for sampling and the frequency of sampling for each parameter;
- Schedules for monitoring at your facility, including schedule for alternate monitoring periods for climates with irregular stormwater runoff (see Part 6.1.6);

- Any numeric control values (benchmarks, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to discharges from each outfall; and
- Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data, as specified in Part 6.1.

If you are invoking the exception for inactive and unstaffed sites for benchmark monitoring, you must include in your SWPPP the information to support this claim as required by Part 6.2.1.3.

You must document the following in your SWPPP if you plan to use the substantially identical outfall exception for your quarterly visual assessment requirements in Part 4.2 or your benchmark monitoring requirements in Part 6.2.1:

- Location of each of the substantially identical outfalls;
- Description of the general industrial activities conducted in the drainage area of each outfall;
- Description of the control measures implemented in the drainage area of each outfall;
- Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges;
- An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%); and
- Why the outfalls are expected to discharge substantially identical effluents.

You must document in your SWPPP your procedures for performing, as appropriate, the three types of inspections specified by this permit, including:

- Routine facility inspections (see Part 4.1);
- Quarterly visual assessment of stormwater discharges (see Part 4.2); and
- Comprehensive site inspections (see Part 4.3).

For each type of inspection performed, your SWPPP must identify:

- Person(s) or positions of person(s) responsible for inspection;
- Schedules for conducting inspections, including tentative schedule for facilities in climates with irregular stormwater runoff discharges (see Part 4.2.3); and
- Specific items to be covered by the inspection, including schedules for specific outfalls.

If you are invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, you must include in your SWPPP the information to support this claim as required by Parts 4.1.3 and 4.2.3.

5.1.6 Documentation to Support Eligibility Considerations Under Other Federal Laws.

5.1.6.1 Documentation Regarding Endangered Species. You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.4.5 (Endangered and Threatened Species and Critical Habitat Protection).

5.1.6.2 Documentation Regarding Historic Properties. You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.4.6 (Historic Properties Preservation).

5.1.6.3 Documentation Regarding NEPA Review. You must keep with your SWPPP the documentation supporting your certification of eligibility under Part 1.1.2.5 (Discharges Subject to Any New Source Performance Standards).

5.1.7 Signature Requirements.

You must sign and date your SWPPP in accordance with Appendix B, Subsection 11, including the date of signature.

5.2 Required SWPPP Modifications.

You must modify your SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 3.1 and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part 3.2 indicates that changes to your control measures are necessary to meet the effluent limits in this permit. Changes to your SWPPP document must be made in accordance with the corrective action deadlines in Parts 3.3 and 3.4, and must be signed and dated in accordance with Appendix B, Subsection 11.

5.3 SWPPP Availability.

You must retain a copy of the current SWPPP required by this permit at the facility, and it must be immediately available to EPA; a State, Tribal, or local agency approving stormwater management plans; the operator of an MS4 receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) at the time of an onsite inspection or upon request. EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from those staff cleared for CBI review within EPA, USFWS, or NMFS.

EPA encourages you to post your SWPPP online and provide the website address on your NOI.

5.4 Additional Documentation Requirements.

You are required to keep the following inspection, monitoring, and certification records with your SWPPP that together keep your records complete and up-to-date, and demonstrate your full compliance with the conditions of this permit:

- A copy of the NOI submitted to EPA along with any correspondence exchanged between you and EPA specific to coverage under this permit;
- A copy of the acknowledgment letter you receive from the NOI Processing Center or eNOI system assigning your permit tracking number;
- A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the U.S., through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part 2.1.2.4);
- Records of employee training, including date training received (see Part 2.1.2.9);
- Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3);
- All inspection reports, including the Routine Facility Inspection Reports (see Part 4.1), the Quarterly Visual Assessment Reports (see Part 4.2), and the Comprehensive Site Inspection Reports (see Part 4.3);
- Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 4.2.1, 6.1.4, and 6.2.1.2);
- Description of any corrective action taken at your site, including triggering event and dates when problems were discovered and modifications occurred;
- Documentation of any benchmark exceedances and how they were responded to, including either (1) corrective action taken, (2) a finding that the exceedence was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge or were solely attributable to natural background sources (see Part 6.2.4.2); and
- Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 4.1.3), quarterly visual assessments (see Part 4.2.3), and/or benchmark monitoring (see Part 6.2.1.3).

6. Monitoring.

You must collect and analyze stormwater samples and document monitoring activities consistent with the procedures described in Part 6 and Appendix B, Subsections 10 – 12, and any additional sector-specific or State/Tribal-specific requirements in Parts 8 and 9, respectively. Refer to Part 7 for reporting and recordkeeping requirements.

6.1 Monitoring Procedures

6.1.1 Monitored Outfalls.

Applicable monitoring requirements apply to each outfall authorized by this permit, except as otherwise exempt from monitoring as a "substantially identical outfall." If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas, you may monitor the effluent of just one of the outfalls and report that the results also apply to the substantially identical outfall(s). As required in Part 5.1.5.2, your SWPPP must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations. You are required to monitor each outfall covered by a numeric effluent limit as identified in Part 6.2.2.

6.1.2 Commingled Discharges.

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other waste streams, to the extent practicable.

6.1.3 Measurable Storm Events.

All required monitoring must be performed on a storm event that results in an actual discharge from your site ("measurable storm event") that follows the preceding measurable storm event by at least 72 hours (3 days). The 72-hour (3-day) storm interval does not apply if you are able to document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period. In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs at your site.

For each monitoring event, except snowmelt monitoring, you must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, you must identify the date of the sampling event.

6.1.4 Sample Type.

You must take a minimum of one grab sample from a discharge resulting from a measurable storm event as described in Part 6.1.3. Samples must be collected within the first 30 minutes of a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge.

6.1.5 Adverse Weather Conditions.

When adverse weather conditions as described in Part 4.2.3 prevent the collection of samples according to the relevant monitoring schedule, you must take a substitute sample during the next qualifying storm event. Adverse weather does not exempt you from having to file a benchmark monitoring report in accordance with your sampling schedule. You must report any failure to monitor as specified in Part 7.1 indicating the basis for not sampling during the usual reporting period.

6.1.6 Climates with Irregular Stormwater Runoff.

If your facility is located in areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent runoff from occurring for extended periods, required monitoring events may be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from your site. You must still collect the required number of samples.

6.1.7 Monitoring Periods.

Monitoring requirements in this permit begin in the first full quarter following either April 1, 2009 or your date of discharge authorization, whichever date comes later. If your monitoring is required on a quarterly basis (e.g., benchmark monitoring), you must monitor at least once in each of the following 3-month intervals:

- January 1 – March 31;
- April 1 – June 30;
- July 1 – September 30; and
- October 1 – December 31.

For example, if you obtain permit coverage on June 2, 2009, then your first monitoring quarter is July 1 - September 30, 2009. This monitoring schedule may be modified in accordance with Part 6.1.6 if the revised schedule is documented with your SWPPP and provided to EPA with your first monitoring report.

6.1.8 Monitoring for Allowable Non-Stormwater Discharges

You are only required to monitor allowable non-stormwater discharges (as delineated in Part 1.1.3) when they are commingled with stormwater discharges associated with industrial activity.

6.2 Required Monitoring.

This permit includes five types of required analytical monitoring, one or more of which may apply to your discharge:

- Quarterly benchmark monitoring (see Part 6.2.1)
- Annual effluent limitations guidelines monitoring (see Part 6.2.2);
- State- or Tribal-specific monitoring (see Part 6.2.3);
- Impaired waters monitoring (see Part 6.2.4); and
- Other monitoring as required by EPA (see Part 6.2.5).

When more than one type of monitoring for the same parameter at the same outfall applies (e.g., total suspended solids once per year for an effluent limit and once per quarter for benchmark monitoring at a given outfall), you may use a single sample to satisfy both monitoring requirements (i.e., one sample satisfying both the annual effluent limit sample and one of the 4 quarterly benchmark monitoring samples).

All required monitoring must be conducted in accordance with the procedures described in Appendix B, Subsection 10.D.

6.2.1 Benchmark Monitoring.

This permit stipulates pollutant benchmark concentrations that may be applicable to your discharge. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in Part 2.

6.2.1.1 Applicability of Benchmark Monitoring. You must monitor for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to your discharge. Your industry-specific benchmark concentrations are listed in the sector-specific sections of Part 8. If your facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, you are required to submit to EPA with your first benchmark report a hardness value, established consistent with the procedures in Appendix J, which is representative of your receiving water.

Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which you are required to sample.

6.2.1.2 Benchmark Monitoring Schedule. Benchmark monitoring must be conducted quarterly, as identified in Part 6.1.7, for your first 4 full quarters of permit coverage commencing no earlier than April 1, 2009. Facilities in climates with irregular stormwater runoff, as described in Part 6.1.6, may modify this quarterly schedule provided that this revised schedule is reported to EPA when the first benchmark sample is collected and reported, and that this revised schedule is kept with the facility's SWPPP as specified in Part 5.4.

Data not exceeding benchmarks: After collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, you have fulfilled your monitoring requirements for that parameter for the permit term. For averaging purposes, use a value of zero for any individual sample parameter, analyzed using procedures consistent with Part 6.2.1.1, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

Data exceeding benchmarks: After collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter exceeds the benchmark, you must, in accordance with Part 3.2, review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until you have completed 4 additional quarters of monitoring for which the average does not exceed the benchmark; or

- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations in Parts 2 of this permit, in which case you must continue monitoring once per year. You must also document your rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with your SWPPP. You must also notify EPA of this determination in your next benchmark monitoring report.

In accordance with Part 3.2, you must review your control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 quarters of monitoring data, if an exceedance of the 4 quarter average is mathematically certain. If after modifying your control measures and conducting 4 additional quarters of monitoring, your average still exceeds the benchmark (or if an exceedance of the benchmark by the 4 quarter average is mathematically certain prior to conducting the full 4 additional quarters of monitoring), you must again review your control measures and take one of the two actions above.

***Natural background pollutant levels*:** Following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data, see above), if the average concentration of a pollutant exceeds a benchmark value, and you determine that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, you are not required to perform corrective action or additional benchmark monitoring provided that:

- The average concentration of your benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background;
- You document and maintain with your SWPPP, as required in Part 5.4, your supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. You must include in your supporting rationale any data previously collected by you or others (including literature studies) that describe the levels of natural background pollutants in your stormwater discharge; and
- You notify EPA on your final quarterly benchmark monitoring report that the benchmark exceedances are attributable solely to natural background pollutant levels.

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring.

6.2.1.3 Exception for Inactive and Unstaffed Sites. The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must do the following:

- Maintain a statement onsite with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11; and
- If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements under Part 6.2 as if you were in your first year of permit coverage. You must indicate in your first benchmark monitoring report that your facility has materials or activities exposed to stormwater or has become active and/or staffed.
- If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must notify EPA of this change in your next benchmark monitoring report. You may discontinue benchmark monitoring once

you have notified EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

Note: This exception has different requirements for Sectors G, H, and J (see Part 8).

6.2.2 Effluent Limitations Monitoring.

6.2.2.1 Monitoring Based on Effluent Limitations Guidelines. Table 6-1 identifies the stormwater discharges subject to effluent limitation guidelines that are authorized for coverage under this permit. Beginning in the first full quarter following April 1, 2009 or your date of discharge authorization, whichever date comes later, you must monitor once per year at each outfall containing the discharges identified in Table 6-1 for the parameters specified in the sector-specific section of Part 8.

Table 6-1. Required Monitoring for Effluent Limits Based on Effluent Limitations Guidelines

Regulated Activity	Effluent Limit	Monitoring Frequency	Sample Type
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 8.A.7	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 8.C.4	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 8.D.4	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 8.E.5	1/year	Grab
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	See Part 8.J.9	1/year	Grab
Runoff from hazardous waste landfills	See Part 8.K.6	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 8.L.10	1/year	Grab
Runoff from coal storage piles at steam electric generating facilities	See Part 8.O.8	1/year	Grab

6.2.2.2 Substantially Identical Outfalls. You must monitor each outfall discharging runoff from any regulated activity identified in Table 6-1. The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring.

6.2.3 State or Tribal Provisions Monitoring

6.2.3.1 Sectors Required to Conduct State or Tribal Monitoring. You must comply with any State or Tribal monitoring requirements (see Part 9) applicable to your facility's location.

6.2.3.2 State or Tribal Monitoring Schedule. If a monitoring frequency is not specified for an applicable requirement in Part 9, you must monitor once per year for the entire permit term.

6.2.4 Discharges to Impaired Waters Monitoring.

6.2.4.1 Permittees Required to Monitor Discharges to Impaired Waters. If you discharge to an impaired water, you must monitor for all pollutants for which the waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136).

If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, you must monitor for Total Suspended Solids (TSS). If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, you must monitor for that indicator or surrogate pollutant. No monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.

6.2.4.2 Impaired Waters Monitoring Schedule.

Discharges to impaired waters without an EPA approved or established TMDL:
Beginning in the first full quarter following April 1, 2009 or your date of discharge authorization, whichever date comes later, you must monitor once per year at each outfall (except substantially identical outfalls) discharging stormwater to impaired waters without an EPA approved or established TMDL. This monitoring requirement does not apply after one year if the pollutant for which the waterbody is impaired is not detected above natural background levels in your stormwater discharge, and you document, as required in Part 5.4 (Additional Documentation Requirements), that this pollutant is not expected to be present above natural background levels in your discharge.

If the pollutant for which the water is impaired is not present and not expected to be present in your discharge, or it is present but you have determined that its presence is caused solely by natural background sources, you should include a notification to this effect in your first monitoring report, after which you may discontinue annual monitoring. To support a determination that the pollutant's presence is caused solely by natural background sources, you must keep the following documentation with your SWPPP records:

- An explanation of why you believe that the presence of the pollutant causing the impairment in your discharge is not related to the activities at your facility; and
- Data and/or studies that tie the presence of the pollutant causing the impairment in your discharge to natural background sources in the watershed.

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring.

Discharges to impaired waters with an EPA approved or established TMDL: For stormwater discharges to waters for which there is an EPA approved or established TMDL, you are not required to monitor for the pollutant for which the TMDL was written unless EPA informs you, upon examination of the applicable TMDL and/or WLA, that you are subject to such a requirement consistent with the assumptions of the applicable TMDL and/or WLA. EPA's notice will include specifications on which pollutant to monitor and the required monitoring frequency during the first year of permit coverage. Following the first year of monitoring:

- If the TMDL pollutant is not detected in any of your first year samples, you may discontinue further sampling, unless the TMDL has specific instructions to the contrary, in which case you must follow those instructions. You must keep records of this finding onsite with your SWPPP.

- If you detect the presence of the pollutant causing the impairment in your stormwater discharge for any of the samples collected in your first year, you must continue monitoring annually throughout the term of this permit, unless the TMDL specifies more frequent monitoring, in which case you must follow the TMDL requirements.

6.2.5 Additional Monitoring Required by EPA.

EPA may notify you of additional discharge monitoring requirements. Any such notice will briefly state the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

6.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limit.

You must conduct follow-up monitoring within 30 calendar days (or during the next qualifying runoff event, should none occur within 30 days) of implementing corrective action(s) taken pursuant to Part 3 in response to an exceedance of a numeric effluent limit contained in this permit. See Part 9 for specific monitoring requirements applicable to individual States or Tribes. Monitoring must be performed for any pollutant(s) that exceeds the effluent limit. If this follow-up monitoring exceeds the applicable effluent limitation, you must comply with both Parts 6.3.1 and 6.3.2.

6.3.1 Submit an Exceedance Report.

You must submit an Exceedance Report consistent with Part 7.3.

6.3.2 Continue to Monitor.

You must continue to monitor, at least quarterly, until your discharge is in compliance with the effluent limit or until EPA waives the requirement for additional monitoring.

7. Reporting and Recordkeeping

7.1 Reporting Monitoring Data to EPA.

All monitoring data collected pursuant to Parts 6.2 and 6.3 must be submitted to EPA using EPA's online eNOI system (www.epa.gov/npdes/eNOI) no later than 30 days (email date or postmark date) after you have received your complete laboratory results for all monitored outfalls for the reporting period. If you cannot access eNOI, paper reporting forms must be submitted by the same deadline to the appropriate address identified in Part 7.6.1. If you are using paper reporting forms, EPA strongly recommends that you use the MSGP discharge monitoring report (MDMR) available at www.epa.gov/npdes/stormwater/msgp. See Part 9 for specific reporting requirements applicable to individual States or Tribes.

For benchmark monitoring, note that you are required to submit sampling results to EPA no later than 30 days after receiving laboratory results for each quarter that you are required to collect benchmark samples, in accordance with Part 6.2.1.2. If you collect multiple samples in a single quarter (e.g., due to adverse weather conditions, climates with irregular stormwater runoff, or areas subject to snow), you are required to submit all sampling results to EPA within 30 days of receiving the laboratory results.

7.2 Annual Report

You must submit an annual report to EPA that includes the findings from your Part 4.3 comprehensive site inspection and any corrective action documentation as required in Part 3.4. If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s). In addition to the information required in Parts 3.4 (Corrective Action Report) and 4.3.2 (Comprehensive Site Inspection Documentation), you must include the following information with your annual report:

- Facility name
- NPDES permit tracking number
- Facility physical address
- Contact person name, title, and phone number

EPA strongly recommends that you submit this report using the Annual Reporting Form provided as Appendix I. You must submit the annual report to EPA within 45 days (postmark date) after conducting the comprehensive site inspection to the address identified in Part 7.6.1.

7.3 Exceedance Report for Numeric Effluent Limits

If follow-up monitoring pursuant to Part 6.3 exceeds a numeric effluent limit, you must submit an Exceedance Report to EPA no later than 30 days after you have received your lab results. Your report must include the following:

- NPDES permit tracking number;

- Facility name, physical address and location;
- Name of receiving water;
- Monitoring data from this and the preceding monitoring event(s);
- An explanation of the situation; what you have done and intend to do (should your corrective actions not yet be complete) to correct the violation; and
- An appropriate contact name and phone number.

7.4 Additional Reporting.

In addition to the reporting requirements stipulated in Part 7, you are also subject to the standard permit reporting provisions of Appendix B, Subsection 12.

Where applicable, you must submit the following reports to the appropriate EPA Regional Office listed in Part 7.6.2, as applicable. If you discharge through an MS4, you must also submit these reports to the MS4 operator (identified pursuant to Part 5.1.2).

- 24-hour reporting (see Appendix B, Subsection 12.F) - You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances;
- 5-day follow-up reporting to the 24 hour reporting (see Appendix B, Subsection 12.F) - A written submission must also be provided within five days of the time you become aware of the circumstances;
- Reportable quantity spills (see Part 2.1.2.4) - You must provide notification, as required under Part 2.1.2.4, as soon as you have knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity.

Where applicable, you must submit the following reports to EPA Headquarters at the appropriate address in Part 7.6.1:

- Planned changes (see Appendix B, Subsection 12.A) – You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- Anticipated noncompliance (see Appendix B, Subsection 12.B) – You must give advance notice to EPA of any planned changes in the permitted facility or activity which you anticipate will result in noncompliance with permit requirements;
- Transfer of ownership and/or operation – You must submit a complete and accurate NOI in accordance with the requirements of Appendix G of this permit and by the deadlines specified in Table 1-2;
- Compliance schedules (see Appendix B, Subsection 12.F) - Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;

- Other noncompliance (see Appendix B, Subsection 12.G) - You must report all instances of noncompliance not reported in your monitoring report (pursuant to Part 7.1), compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and
- Other information (see Appendix B, Subsection 12.H) – You must promptly submit facts or information if you become aware that you failed to submit relevant facts in your NOI, or that you submitted incorrect information in your NOI or in any report.

7.5 Recordkeeping.

You must retain copies of your SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 5.4 (including documentation related to corrective actions taken pursuant to Part 3), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date that your coverage under this permit expires or is terminated.

7.6 Addresses for Reports

7.6.1 EPA Addresses

Paper copies of any reports required in Part 6 and 7, not otherwise submitted electronically via EPA's eNOI system (www.epa.gov/npdes/eNOI) must be sent to one of the following addresses:

Via U.S. mail:

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Mail Code 4203M, ATTN: MSGP Reports
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Or Via Overnight/Express Delivery:

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Room 7420, ATTN: MSGP Reports
1201 Constitution Avenue, NW
Washington, D.C. 20004
Phone number: 202-564-9545

Notices of Intent and Notices of Termination should be submitted using EPA's eNOI system (www.epa.gov/npdes/eNOI) or sent to EPA's NOI Center (see Appendix G for the address).

All other written correspondence concerning discharges in any State, Indian Country land, Territory, or from any Federal facility covered under this permit and directed to the EPA, including individual permit applications, must be sent to the address of the appropriate EPA Regional Office listed below:

7.6.2 Regional Addresses

7.6.2.1 Region 1: Connecticut, Massachusetts, and New Hampshire, Rhode Island, Vermont.

U.S. EPA Region 1
Office of Ecosystem Protection
One Congress Street - CIP
Boston, MA 02114

7.6.2.2 Region 2: New Jersey, New York, Puerto Rico, and Virgin Islands.

For Puerto Rico and the Virgin Islands

U.S. EPA Region 2
Caribbean Environmental Protection Division
Environmental Management Branch
Centro Europa Building
1492 Ponce de Leon Avenue, Suite 417
San Juan, PR 00907-4127

For New Jersey and New York:

(Coverage not available under this permit.)

U.S. EPA Region 2
Division of Environmental Planning and Protection
290 Broadway
New York, NY 10007-1866

7.6.2.3 Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.

U.S. EPA Region 3
Water Protection Division (3WP40)
Stormwater Coordinator
1650 Arch Street
Philadelphia, PA 19103

7.6.2.4 Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.

(Coverage not available under this permit.)

U.S. EPA Region 4
Clean Water Act Enforcement Section
Water Programs Enforcement Branch
Water Management Division
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

7.6.2.5 Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

U.S. EPA Region 5
Water Division
NPDES Programs Branch
77 W. Jackson Blvd.
Mail Code WN16J
Chicago, IL 60604

7.6.2.6 Region 6: Arkansas, Louisiana, Oklahoma, Texas, and New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands).

U.S. EPA Region 6
Stormwater Coordinator
Compliance Assurance and Enforcement Division (6EN-WC)
EPA SW MSGP
P.O. Box 50625
Dallas, TX 75205

7.6.2.7 Region 7: Iowa, Kansas, Missouri, Nebraska.

(Coverage not available under this permit.)

U.S. EPA - Region 7
901 N. 5th Street
Kansas City, KS 66101

7.6.2.8 Region 8: Colorado, Montana, North Dakota, South Dakota, Wyoming, Utah (except see Region 9 for Goshute Reservation and Navajo Reservation lands), the Ute Mountain Reservation in New Mexico, and the Pine Ridge Reservation in Nebraska.

(Coverage not available under this permit.)

U.S. EPA Region 8
Stormwater Coordinator (8P-W-P)
999 18th Street, Suite 300
Denver, CO 80202-2466

7.6.2.9 Region 9: Arizona, California, Hawaii, Nevada, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Goshute Reservation in Utah and Nevada, the Navajo Reservation in Utah, New Mexico, and Arizona, the Duck Valley Reservation in Idaho, Fort McDermitt Reservation in Oregon.

U.S. EPA Region 9
Water Management Division, WTR-5
Stormwater Coordinator
75 Hawthorne Street
San Francisco, CA 94105

7.6.2.10 Region 10: Alaska, Idaho, Oregon (except see Region 9 for Fort McDermitt Reservation), Washington.

U.S. EPA Region 10
Office of Water and Watersheds OWW-130
Stormwater Coordinator
1200 6th Avenue
Seattle, WA 98101

7.6.3 State and Tribal Addresses.

See Part 9 (States and Tribes) for the addresses of applicable States or Tribes that require submission of information to their agencies.

9. Permit Conditions Applicable to Specific States, Indian Country Lands, or Territories

9.1 Region 1

9.1.1 CTR05000I: Indian Country lands within the State of Connecticut

No additional requirements.

9.1.2 MAR050000: Commonwealth of Massachusetts, except Indian Country lands.

Permittees in Massachusetts must also meet the following conditions.

9.1.2.1 Additional Section 401(a) conditions required by the Commonwealth of Massachusetts. Discharges covered by the general permit must comply with the provisions of 314 CMR 3.00; 314 CMR 4.00; 314 CMR 9.00; and 314 CMR 10.00 and any other related policies adopted under the authority of the Massachusetts Clean Waters Act, MGL c.21, ss. 26-53 and Wetlands Protection Act, MGL s. 40.

New facilities or redevelopment of existing facilities subject to this permit must comply with applicable stormwater performance standards prescribed by state regulation or policy. A permit under 314 CMR 3.04 is not required for existing facilities which meet state stormwater performance standards. An application for a permit under 314 CMR 3.00 is required only when required under 314 CMR 3.04(2)(b) {designation of a discharge on a case-by-case basis} or is otherwise identified in 314 CMR 3.00 or any Department policy as a discharge requiring a permit application. Department regulations and policies may be obtained through the State House Bookstore or online at www.mass.gov/dep.

9.1.2.2 SWPPP Availability. The Department may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the Department within 14 days of such a request.

9.1.2.3 Authorization to Inspect. The Department may conduct an inspection of any facility covered by this permit to ensure compliance with state law requirements, including state water quality standards. The Department may enforce its certification conditions.

9.1.2.4 Submission of Monitoring Data. The results of any monitoring required by this permit must be sent to the appropriate Regional Office of the Department [attention: Bureau of Waste Prevention] where the monitoring identifies exceedances of any effluent limits or benchmarks for any parameter for which

monitoring is required under this permit. In addition, any follow-up monitoring and a description of the corrective actions required and undertaken to meet the effluent limits or benchmarks must be sent to the appropriate Department Regional Office.

9.1.2.5 Sector-Specific Requirements. The Massachusetts Coastal Zone Management Program submitted the following conditions to be added to the permit in order to meet the Programs Consistency Review and which will be included in the requirements of this Water Quality Certification:

- In Sector Q [Water Transportation] add copper and tributyltin to the required monitoring parameters.
- In Sector R [Ship and Boat Building and Repair Yards] add aluminum, iron, lead, copper and tributyltin to the list of required monitoring parameters
- For both Sector Q and R, the benchmark for tributyltin should be 0.42 ug/l, the acute saltwater criteria; report any exceedances of that value.
- Modify the monitoring requirements [Part 6.2.1.2 of the permit] such that all four of the quarterly monitoring samples must meet the benchmarks rather than the average of the four before no further monitoring is required.

9.1.3 MAR05000I: Indian Country lands within the Commonwealth of Massachusetts.

No additional requirements.

9.1.5 NHR050000: State of New Hampshire.

Permittees in New Hampshire must also meet the following conditions:

9.1.5.1 On-site Infiltration of Stormwater. In Part 2.1.1 (Control Measure Selection and Design Considerations), you are required to consider opportunities for infiltrating runoff onsite. This is encouraged, but it should only be done if consistent with the statutes and rules of the Department of Environmental Services written to protect groundwater. Infiltration BMPs are not recommended at industrial sites except in areas where industrial activities do not occur, such as at office buildings and their associated parking facilities, or in drainage areas at the facility where a certification of no exposure will always be possible [see 40 CFR 122.26(g)]. Other justifiable reasons for not using on-site infiltration BMPs include the following:

- The facility is located in a wellhead protection area as defined in RSA 485-C:2; or
- The facility is located in an area where groundwater has been reclassified to GAA, GAI or GA2 pursuant to RSA 485-C and Env-Ws 420; or

- Any areas that would be exempt from the groundwater recharge requirements contained in Env-Ws 415.41, including all land uses or activities considered to be a "High-load site."

9.1.5.2 Maintenance of infiltration best management practices. In addition to the requirements in Part 5, the SWPPP must contain the following:

- A description of and the location of each on-site infiltration BMP installed;
- The maintenance procedures that will be followed to ensure proper operation, including the removal of sediment from pretreatment devices;
- The inspection procedures that will be followed at least annually. These should include the procedures for ensuring that the stormwater being infiltrated is not exposed to industrial pollutants and the procedures for ensuring proper drainage to prevent mosquito breeding;
- The employee name (or title of the position) who is a member of the stormwater pollution prevention team (see Part 5.1.1) who will be responsible for the maintenance required in this section, the inspections required in this section, and any necessary corrective actions required in Part 3; and
- Records for all maintenance performed, inspections conducted, and corrective actions taken.

9.1.5.3 Discontinue, Permit or Register On-site Infiltration BMP if Necessary. If at any time a certification of no exposure can no longer be made for any of the stormwater to be infiltrated, then the infiltration BMP must cease for that portion of the runoff or the discharge must be permitted or registered as appropriate. The following may be required:

- Infiltration BMP that meet the definition of a Class V well or that infiltrates stormwater via a subsurface structure (i.e. concrete chambers, dry well, leach field, etc.) will need an underground injection control (UIC) registration from NHDES; and
- Permitting as a groundwater discharge as required in Env-Ws 1500, if the stormwater will or may contain regulated contaminants.

The SWPPP must be modified immediately if new infiltration BMPs are proposed or if existing infiltration BMPs will cease.

9.1.5.4 Required NHDES notification.

- Notify the NHDES Groundwater Discharge Permit Coordinator immediately if you believe that any infiltration BMP may need to be permitted or registered (See Part 9.1.5.3) during the permit term.
- Notify the NHDES Wastewater Engineering Bureau immediately of any plans to discharge any new non-stormwater discharges during the permit term. This does not include the allowable non-stormwater discharges listed in Part 1.1.3.

9.1.5.5 Information that may be requested by NHDES. To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 400 and Env-Ws 401 the following information may be requested by NHDES. This information must be kept on site unless you receive a written request from NHDES that it be sent to the address shown in Part 9.1.5.6.

- A site map required in Part 5.1.2, showing the type and location of all on-site infiltration BMPs utilized at the facility or the reason(s) why none were installed.
- A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (See Sections 1.1.3 and 5.1.3.4).
- A copy of the Annual Reports required in Part 7.2.

9.1.5.6 Where to Submit Information. All required or requested documents must be sent to: NH Department of Environmental Services, Wastewater Engineering Bureau, Permits & Compliance Section, P.O. Box 95, Concord, NH 03302-0095.

9.1.5.7 Modification of Clean Water Act Section 401 Water Quality Certification. When NHDES determines that additional water quality certification requirements are necessary to the protect water quality, it may require individual dischargers to meet additional conditions to obtain or continue coverage under the MSGP. Any such conditions must be supplied to the permittee in writing. Any required pollutant loading analyses and any designs for structural best management practices necessary to protect water quality must be prepared by a civil or sanitary engineer registered in New Hampshire.

9.1.6 RIR05000I: Indian Country lands within the State of Rhode Island.

No additional requirements.

9.1.7 VTR05000F: Federal Facilities in the State of Vermont.

No additional requirement.

9.2 Region 2

9.2.1 PPR050000: Commonwealth of Puerto Rico

No additional requirements.

9.3 Region 3

9.3.1 DCR050000: The District of Columbia

Permittees in the District of Columbia must also meet the following conditions:

9.3.1.1 Compliance with District of Columbia Laws and Regulations. Discharges covered by the MSGP must comply with the District of Columbia Water Pollution Control Act, (D.C. Code § 8-103.01 *et seq.*) and its implementing regulations in Title 21, Chapters 11 and 19 of the District of Columbia Municipal Regulations. Nothing in this permit will be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to District of Columbia laws and regulations.

9.3.1.2 Submission of SWPPP. The Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to the District Department of the Environment (Department) at the same time the NOI is submitted to EPA, to ensure compliance with District of Columbia laws and regulations.

9.3.1.3 Submission of No Exposure Certification and NOT. Copies of the No Exposure Certification and Notice of Termination (NOT) shall be submitted to the Department at the same time it is submitted to EPA.

9.3.1.4 Authorization to Inspect. The permittee shall allow the Department to inspect any facilities, equipment, practices, or operations regulated or required under this permit and to access records maintained under the conditions of this permit.

9.3.1.5 Submission of Reports. Signed copies of all reports required under this permit including the reporting requirements of Appendix B.12 shall be submitted to the Department at the same time it is submitted to EPA.

9.3.1.6 Where to Submit Information. All required or requested documents shall be sent to the: District Department of the Environment, Natural Resources Administration, 51 N Street, NE, 5th Floor, Washington, D.C. 20002, Attention: Associate Director, Water Quality Division.

9.3.2 DER05000F: Federal Facilities within the State of Delaware.

No additional requirements.

9.4 Region 4

Permit coverage not available.

9.5 Region 5

9.5.1 MIR05000I: Indian Country Lands within the State of Michigan

No additional requirements.

9.5.2 MNR05000I: Indian Country Lands within the State of Minnesota

9.5.2.1 Fond du Lac Reservation

The following conditions apply only to discharges on the Fond du Lac Reservation.

9.5.2.1.1 Submission of NOI and NOT. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be submitted to the Office of Water Protection at the same time it is submitted to EPA.

9.5.2.1.2 Submission of SWPPP. A copy of the Stormwater Pollution Plan (SWPPP) shall be submitted to the Office of Water Protection at least thirty (30) days in advance of submitting the NOI to EPA.

9.5.2.1.3 Benchmark Monitoring for TSS. Benchmark Monitoring Concentration (BMC) for Total Suspended Solids (TSS) shall be 10 mg/L for Sector A (Timber Products), Sector J (Mineral Mining and Dressing), and Sector M (Automobile Salvage Yards) that conduct Industrial Activities on the Fond du Lac Reservation.

9.5.2.1.4 Benchmark Monitoring for Nitrate plus Nitrite Nitrogen. Benchmark Monitoring Concentration (BMC) fro Nitrate plus Nitrite Nitrogen shall be 0.12mg/L for Sector J (Mineral Mining and Dressing) that conduct Industrial Activities on the Fond du Lac Reservation.

9.5.2.1.5 Submission of Monitoring Reports. Copies of all Monitoring Reports required by this permit shall be submitted to the Office of Water Protection.

9.5.2.1.6 Where to Submit Information. All required or requested documents shall be sent to the: Fond du Lac Reservation Office of Water Protection (OWP) at Fond du Lac Reservation, Office of Water Protection, 1720 Big Lake Road, Cloquet, Minnesota 55720.

9.5.2.2 Grand Portage Reservation

The following conditions apply only to discharges on the Grand Portage Reservation.

9.5.2.2.1 Compliance with Grand Portage Reservation Laws and Regulations. All industrial stormwater discharges authorized by this permit must comply with the Grand Portage Water Quality Standards, Applicable Federal Standards, and the Grand Portage Water Resources Ordinance, as amended, ("Water Resources Ordinance").

9.5.2.2.2 Additional Monitoring Required by Grand Portage Reservation. The Board must be contacted, at the address in Part 9.5.2.2.10, at the onset of writing the

Stormwater Pollution Prevention Plan (SWPPP). Grand Portage may require monitoring of stormwater discharges as determined on a case-by-case basis. If the Board determines that a monitoring plan is necessary, the monitoring plan must be prepared and incorporated in the SWPPP before the Notice of Intent (NOI) is submitted to EPA.

9.5.2.2.3 Submission of SWPPP and NOI. A copy of the SWPPP and NOI must be submitted to the Board for review and approval at least 30 days before submitting the NOI to EPA.

9.5.2.2.4 Submission of NOT. A copy of the Notice of Termination (NOT) must be submitted to the Board at the address in Part 9.5.3.10 at the same time it is submitted to EPA.

9.5.2.2.5 Additional Information. If requested by the Grand Portage Environmental Department, the permittee is required to provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Grand Portage Water Quality Standards and any Applicable Federal Standards.

9.5.2.2.6 Submission of Monitoring Data. All analytical data (e.g., Discharge Monitoring Reports, etc.) must be submitted to the Board at the same time it is submitted to EPA.

9.5.2.2.7 Water Quality Standards. Discharges that the Board has determined to be or may reasonably be expected to be contributing to a violation of Grand Portage Water Quality Standards or Applicable Federal Standards are not authorized by this permit. Upon receipt of this determination EPA will notify the permittee to either improve their SWPPP to comply with Grand Portage Water Standards or apply for and obtain an individual NPDES permit for these discharges.

9.5.2.2.8 Appeals. Appeals related to Tribal decisions actions, or enforcement taken pursuant to any of the preceding conditions will be heard by the Grand Portage Tribal Court.

9.5.2.2.9 Definitions. The definitions set forth in the Grand Portage Water Resources Ordinance, as amended, govern these certification conditions.

9.5.2.2.10 Where to Submit Information. All required or requested documents shall be sent to the: Grand Portage Environmental Resources Board, P.O. Box 428, Grand Portage, MN 55605.

9.5.3 WIR05000I: Indian Country lands within the State of Wisconsin, except those on Sokaogon Chippewa Community lands

No additional requirements.

Note: Facilities in the Sokaogon Chippewa Community are not eligible for stormwater discharge coverage under this permit. Contact the EPA Region 5 office for an individual permit application.

9.6 Region 6

9.6.1 LAR05000I: Indian Country Lands within the State of Louisiana

No additional requirements.

9.6.2 The State of New Mexico, except Indian Country lands.

Permittees in New Mexico must also meet the following conditions:

9.6.2.1 Certification Requirements. Operators are not eligible to obtain authorization under this permit for all new and existing stormwater discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3" waters.) As of 2/16/06, the following ONRWs have been designated by the SWQB in New Mexico (see Subsection D of 20.6.4.9 NMAC). (1) Rio Santa Barbara, including the west, middle and east forks from their headwaters downstream to the boundary of the Pecos Wilderness; and (2) the water within the US forest service Valle Vidal special management unit including: (a) Rio Costilla, including Comanche, La Cueva, Fernandez, Chuckwagon, Little Costilla, Holman, Gold, Grassy, LaBelle, and Vidal creeks, from their headwaters downstream to the boundary of the US forest service Valle Vidal special management unit. (b) Middle Ponil creek, including the waters of Greenwood Canyon, from their headwaters downstream to the boundary of the Elliott S. Barker wildlife management area; (c) Shuree lakes; (d) North Ponil creek, including McCrystal and Seally Canyon creeks, from their headwaters downstream to the boundary of the US forest service Valle Vidal special management unit; and (e) Leandro creek from its headwaters downstream to the boundary of the US forest service Valle Vidal.

9.6.3 Indian Country lands within the State of New Mexico, except Ute Mountain Reservations Lands (see Region 8) and Navajo Reservation Lands (see Region 9).

9.6.3.1 Pueblo of Acoma.

The following condition applies only to discharges on the Pueblo of Acoma:

9.6.3.1.1 Submission of NOI and NOT. The Pueblo will require the owner/operator of each facility on or bordering the Pueblo of Acoma to submit copies of its

Notice of Intent (NOI) and Notice of Termination (NOT) to the Haaku Water Office (HWO) Director at the same time it is submitted to EPA.

9.6.3.1.2 SWPPP Availability. The HWO may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the HWO upon such request.

9.6.3.1.3 Submission of Monitoring Data. All analytical data shall also be provided to the HWO at the same time it is submitted to EPA.

9.6.3.1.4 Where to Submit Information. All required or requested documents shall be sent to: HWO Director, Haaku Water Office, P.O. Box 309, Pueblo of Acoma, NM 87034.

9.6.3.2 Pueblo of Isleta.

The following conditions apply only to discharges on the Pueblo of Isleta:

9.6.3.2.1 Submission of SWPPP. The Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the Pueblo of Isleta prior to submitting the Notice of Intent (NOI) to EPA.

9.6.3.2.2 SWPPP Modification. Any update or amendment of the SWPPP shall be submitted to the Pueblo of Isleta within 5 calendar days of its finalization.

9.6.3.2.3 Submission of Monitoring Data. All monitoring data and reports shall be submitted to the Pueblo of Isleta at the same time they are submitted to EPA.

9.6.3.2.4 Submission of Inspection Reports. All inspection reports, including the Compliance Evaluation Report, shall be submitted to the Pueblo of Isleta within 5 calendar days of their finalization.

9.6.3.2.6 Additional Reporting. Any spill or leak directly to waters designated by the Pueblo of Isleta as 'Primary Contact Recreation' and/or 'Primary Contact Ceremonial' shall be considered significant if it contains toxic or hazardous pollutants, oil or petroleum products. The Pueblo of Isleta shall be notified of any spill containing toxic or hazardous pollutants and of any spill of oil or petroleum product within 8-hours of spill detection.

9.6.3.2.7 Benchmark Monitoring. Following 4 quarters of benchmark monitoring, if the maximum value of the 4 monitoring values does not exceed the benchmark, you have fulfilled your monitoring requirements for that parameter for the permit term. If any of the 4 monitoring values exceeds the benchmark, quarterly monitoring shall continue until no exceedances of the benchmark are detected in four consecutive quarters. Following this determination, you may reduce monitoring for that pollutant to once per year

for the duration of the permit period unless an exceedance is again detected at which time quarterly sampling will again be required.

9.6.3.2.8 ***Corrective Action.*** You must take corrective action following any benchmark exceedance if you determine as a result of reviewing your SWPPP that your SWPPP does not meet the requirements of Part 5 of this permit.

9.6.3.2.9 ***Conditions applicable only to Sector G, Metal Mining.*** (See Part G.4.2.1. Inspection Frequency). Inspections must be conducted at least once every 7 calendar days or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.25 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized, if runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or construction is occurring during seasonal arid periods in arid areas and semi-arid areas.

9.6.3.2.10 ***Where to Submit Information.*** All required or requested documents shall be sent to: Director, Environment Department, Pueblo of Isleta, P.O. Box 1270, Isleta, NM 87022.

9.6.3.3 Pueblo of Nambe.

The following conditions apply only to discharges on the Pueblo of Nambe:

9.6.3.3.1 ***Submission of NOI and NOT.*** Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be submitted to the Pueblo of Nambe at the same time it is submitted to EPA.

9.6.3.3.2 ***SWPPP Availability.*** A copy of the Stormwater Pollution Prevention Plan (SWPPP) must also be submitted to the Pueblo of Nambe, if requested, at the same time the NOI is submitted to EPA.

9.6.3.3.3 ***Submission of Reports.*** All analytical data and a copy of all written reports shall be provided to the Pueblo of Nambe at the same time they are provided to the EPA, if requested by the Pueblo of Nambe.

9.6.3.3.4 ***Where to Submit Information.*** All required or requested documents shall be sent to: Alan G Hook, Manager, Pueblo of Nambe, Department of Environment and Natural Resources (DENR), Rt. 1 Box 117-BB, Sante Fe, NM 87506.

9.6.3.4 Pueblo of Pojoaque.

The following conditions apply only to discharges on the Pueblo of Pojoaque:

9.6.3.4.1 Submission of NOI and NOT. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be provided at the same time it is provided to EPA.

9.6.3.4.2 SWPPP Availability. The Pueblo may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the Pueblo upon such request.

9.6.3.4.3 Submission of Monitoring Data. All analytical data (e.g., Discharge Monitoring Reports, etc) shall be submitted to the Pueblo at the same time it is submitted to EPA.

9.6.3.4.4 Where to Submit Information. All required or requested documents shall be sent to: Luke Mario Duran, Director, Environment Department, 5 West Gutierrez, Suite 2B, Sante Fe, NM 87506.

9.6.3.5 Ohkay Owingeh - (formerly known as San Juan Pueblo).

The following condition applies only to discharges on Ohkay Owingeh (formerly known as San Juan Pueblo):

9.6.3.5.1 Submission of NOI and NOT. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be submitted to Ohkay Owingeh at the same time it is submitted to EPA.

9.6.3.5.2 Submission of Monitoring Data and Additional Reporting. Copies of monitoring data or other documents required under the permit must also be submitted to Ohkay Owingeh upon request.

9.6.3.5.3 Where to Submit Information. All required or requested documents shall be sent to the: Ohkay Owingeh, Office of Environmental Affairs, P.O. Box 1099, San Juan Pueblo, NM 87566.

9.6.3.6 Pueblo of Sandia.

The following conditions apply only to discharges on the Pueblo of Sandia:

9.6.3.6.1 Submission of NOI. A copy of the Notice of Intent (NOI) must be submitted to the Environment Director at the same time it is submitted to EPA.

9.6.3.6.2 Submission of NOT. A copy of the Notice of Termination (NOT) must be submitted to the Environment Director at the same time it is submitted to EPA. The Pueblo of Sandia must verify termination of activities prior to EPA's termination of the permit.

9.6.3.6.3 SWPPP Availability. The Stormwater Pollution Prevention Plan (SWPPP) must be made available to Pueblo of Sandia Environment Department personnel upon request.

9.6.3.6.4 Submission of Monitoring Data. All analytical data (e.g., Discharge Monitoring Reports, follow-up monitoring reports, Exceedance reports, etc) shall be submitted to the Environment Director at the same time it is submitted to EPA.

9.6.3.6.5 Submission of Quarterly Visual Assessments. Copies of all "Quarterly Visual Assessments" (Part 4.2) must be submitted to the Environment Director within 7 days of completion.

9.6.3.6.6 Submission of Comprehensive Site Inspection Reports. Copies of all "Comprehensive Site Inspection Reports" (Part 4.3) must be submitted to the Environment Director within 10 days of completion.

9.6.3.6.7 Additional Reporting. Any notice of release of oils or hazardous substances shall be provided to the Environment Director within twenty-four (24) hours of becoming aware of the circumstance, followed by the reporting requirements of 40 CFR 110, 40 CFR 302, and 40 CFR 302 relating to spills or other releases of oil or hazardous substances.

The permittee must also telephone the Pueblo of Sandia Environment Department at (505) 867-4533 of any spills or unauthorized discharges that may affect drinking water supplies, ceremonial and recreational surface waters, elicit fish kills, harm wildlife or endangered species or endanger human health or the environment within ten (10) hours of becoming aware of the circumstance, followed by the written report when it is sent to the EPA.

9.6.3.6.8 Water Quality Standards. If requested by the Pueblo of Sandia Environment Department, the permittee shall provide additional information necessary for a "case by case" eligibility determination to assure compliance with Pueblo of Sandia Water Quality Standards.

Note: Upon receipt of a determination by the Pueblo of Sandia that discharges from a perimittee have reasonable potential to be causing or contributing to a violation of Pueblo of Sandia Water Quality Standards, EPA Region 6 would be notified. EPA Region 6 would then notify the permittee to either improve their Stormwater Pollution Prevention Plan (SWPPP) to achieve compliance with the Pueblo of Sandia Water Quality Standards or apply for and obtain an individual NPDES permit for these discharges per CFR 122.28(b)(3).

9.6.3.6.9 Authorization to Inspect. If requested by the Pueblo of Sandia Environment Department the permittee must allow the Pueblo to perform its own routine or compliance inspection to ensure the permittee is in compliance and any

discharge is not contributing to a violation of the Pueblo of Sandia's Water Quality Standard.

9.6.3.6.10 Alternative Permit. Any industry discharging to waters of the United States that has been designated by the EPA as an impaired water shall not be covered under the Multi-Sector General Permit but will be required to obtain an individual permit.

9.6.3.6.11 Where to Submit Information. All required or requested documents shall be sent to: Environment Director, Pueblo of Sandia Environment Department at 481 Sandia Loop, Bernalillo, New Mexico 87004

9.6.3.7 Pueblo of Santa Clara.

The following condition applies only to discharges on the Santa Clara Indian Pueblo:

9.6.3.7.1 Submission of NOI and NOT. The Notice of Intent (NOI) and Notice of Termination (NOT) must be submitted to the Santa Clara Pueblo Governor's Office at the same time it is submitted to EPA

9.6.3.7.2 SWPPP Availability. A copy of the Stormwater Pollution Prevention Plan must be made available to the Pueblo of Santa Clara staff upon request.

9.6.3.7.3 Where to Submit Information. All required or requested documents shall be sent to the: Santa Clara Pueblo, Governor's Office, P.O. Box 580, Espanola, NM 87532.

9.6.3.8 Pueblo of Taos

The following conditions apply only to discharges on the Pueblo of Taos:

9.6.3.8.1 Submission of NOI and NOT. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be provided at the same time it is provided to EPA.

9.6.3.8.2 Submission of SWPPP. Upon request by the Pueblo, a copy of the Stormwater Pollution Prevention Plan must be provided to the Taos Pueblo Environmental Officer.

9.6.3.8.3 Submission of Data and Reports. All analytical data and a copy of all written reports shall be provided to the Pueblo at the same time it is provided to the EPA.

9.6.3.8.4 ***Where to Submit Information***. All requested materials shall be sent to Program Manager, Taos Pueblo Environmental Office Program Manager, P.O. Box 1846, Taos, NM, 97571.

9.6.3.9 Pueblo of Tesuque.

The following conditions apply only to discharges on the Pueblo of Tesuque:

9.6.3.9.1 ***Submission of NOI and NOT.*** Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be provided at the same time it is provided to EPA.

9.6.3.9.2 ***Submission of SWPPP.*** A copy of the Stormwater Pollution Prevention Plan must also be made available to the Pueblo of Tesuque at the time the NOI submitted.

9.6.3.9.3 ***Submission of Monitoring Data.*** All analytical data (e.g., Discharge Monitoring Reports, etc) shall be provided to the Pueblo at the same time it is provided to the EPA.

9.6.3.9.4 ***Where to Submit Information.*** All required or requested documents shall be sent to: Jennifer Montoya, Director, Pueblo of Tesuque Environment Department, Rt. 42 Box 360-T, Santa Fe, NM 87506.

9.6.4 OKR05000I: Indian Country lands within the State of Oklahoma

9.6.4.1 ***Certification Requirements.*** In order to protect downstream waters subject to the state of Oklahoma's Water Quality Standards (OAC 785:45-5-25) coverage under this permit is not available for any new or proposed discharges located within the watershed of any part of the Oklahoma Scenic Rivers system, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork Creek, Little Lee Creek, and Big Lee Creek or to any water designated as an Outstanding Resource Water (ORW). Existing discharges of stormwater in these watersheds may be permitted under this permit only from point sources existing as of June 25, 1992, whether or not such stormwater discharges were permitted as point sources prior to June 25, 1992. For any such existing discharge, increased load of any pollutant above levels of June 25, 1992 is prohibited. Any new or proposed discharges not eligible for permit coverage under this paragraph must apply for an individual permit.

9.6.4.2 Pawnee Nation of Oklahoma

The following conditions apply only to discharges on the Pawnee Nation of Oklahoma:

9.6.4.2.1 ***Submission of NOI and NOT.*** Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) shall be provided at the same time it is provided to EPA.

9.6.4.2.2 ***Submission of SWPPP.*** Copies of the Stormwater Pollution Prevention Plan must be provided to the Director of the Pawnee Nation Department of Environmental Conservation and Safety (DECS) no later than the same time as submitted to EPA.

9.6.4.2.3 ***Submission of Data and Reports***. All analytical data and a copy of all written reports shall be provided to DECS no later than the same time it is submitted to the EPA.

9.6.4.2.4 ***Spills or Leaks.*** All spills or leaks of any size or amount occurring upon the Pawnee Nation shall be reported to DECS and the Bureau of Indian Affairs – Pawnee Agency, Bureau of Land Management-Moore Office, Oklahoma City, immediately upon detection as required under Title X, Article 6, section 611 (Pawnee Nation Oil Pollution Control Act – Emergency Response/Notification) of the Pawnee Nation Law and Order Code.

9.6.4.2.5 ***Discharges from Secondary Containment.*** Discharge of stormwater from secondary containment is prohibited and shall not be authorized as cited in Title X, Article 6, Section 604(B) (Pawnee National Oil Pollution Control Act – Secondary Containment).

9.6.4.2.6 ***Where to Submit Information.*** All required or requested documents shall be sent to: Director of the Pawnee Nation Department of Environmental Conservation and Safety (DECS), P.O. Box 470, Pawnee, OK 74058.

9.6.5 OKR05000F: Facilities in the State of Oklahoma not under the jurisdiction of the Oklahoma Department of Environmental Quality, except those on Indian Country lands.

9.6.5.1 ***Certification Requirements.*** In accordance with Oklahoma's Water Quality Standards (OAC 785:45-5-25) coverage under this permit is not available for any new or proposed discharges located within the watershed or any part of the Oklahoma Scenic Rivers system, including Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork River, Little Lee Creek, and Big Lee Creek or to any water designated as an Outstanding Resource Water (ORW). Existing discharges of stormwater in these watersheds may be permitted under this permit only from point sources existing as of June 25, 1992, whether or not such stormwater discharges were permitted as point sources prior to June 25, 1992. For any such existing discharge, increased load of any pollutant above levels of June 25, 1992 is prohibited. Any new or proposed discharges not eligible for permit coverage under this paragraph must apply for an individual permit.

9.6.6 TXR05000F: Facilities in the State of Texas not under the jurisdiction of the Texas Commission on Environmental Quality, except those on Indian Country lands.

No additional requirements.

9.6.7 TXR05000I: Indian Country lands within the State of Texas.

No additional requirements.

9.7 Region 7

Permit coverage not available

9.8 Region 8

Permit coverage not available

9.9 Region 9

9.9.1 ASR050000: The islands of American Samoa

The following condition applies only to discharges on the American Samoa:

9.9.1.1 Submission of NOI. All Notices of Intent (NOIs) for stormwater discharges covered under the general permits in American Samoa shall be submitted to the American Samoa Environmental Protection Agency at the same time it is submitted to EPA.

9.9.1.2 Submission of SWPPPs. All SWPPPs for stormwater discharges in American Samoa shall be submitted to the American Samoa Environmental Protection Agency for review and approval.

9.9.2 AZR05000I: Indian Country lands within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah.

9.9.2.1 Hualapai Tribe (Arizona)

The following condition applies only to discharges on the Hualapai Tribe:

9.9.2.1.1 Submission of NOI and SWPPP. All Notices of Intent (NOIs) and Stormwater Pollution Plans (SWPPPs) for stormwater discharges on Hualapai Tribal lands shall be submitted to the Water Resource Program through the Tribal Chairman for review and approval

9.9.2.1.2 ***Where to Submit Information.*** All required or requested documents shall be sent to: Water Resource Program through the Tribal Chairman, P.O. Box 179, Peach Springs, AZ 86434.

9.9.2.2 Navajo Nation (Arizona).

The following conditions apply only to discharges on the Navajo Nation:

9.9.2.2.1 ***Submission of NOI.*** Notices of Intent (NOI) must be submitted to Navajo EPA for review, comment and tracking.

9.9.2.2.2 ***Submission of SWPPP.*** Copies of Stormwater Water Pollution Plans (SWPPPs) and supporting Best Management Practices (BMPs) must be submitted to Navajo EPA for review and concurrence.

9.9.2.2.3 ***Submission of Monitoring Data.*** Copies of all monitoring reports must be provided to Navajo EPA.

9.9.2.3 White Mountain Apache Tribe (Arizona).

The following condition applies only to discharges on the White Mountain Apache Tribe:

9.9.2.3.1 ***Submission of NOI.*** All Notices of Intent for proposed stormwater discharges under the MSGP must be submitted to the Tribal Environmental Office.

9.9.2.3.2 ***Where to Submit Information.*** All required or requested documents shall be sent to the: Tribal Environmental Office, Attention: Doreen E. Gatewood, P.O. Box 1000, Whiteriver, AZ 85941.

9.9.3 CAR05000I: Indian Country lands within the State of California.

9.9.3.1 Big Pine Paiute Tribe of the Owens Valley (California).

The following condition applies only to discharges on the Big Pine Paiute Tribe of the Owens Valley:

9.9.3.1.1 ***Submission of NOI.*** Copies of Notices of Intent (NOIs) shall be submitted to the Tribe at the same time (or prior to) it is submitted to EPA.

9.9.3.2 Bishop Paiute Tribe (California).

The following condition applies only to discharges on the Bishop Paiute Tribe:

9.9.3.2.1 ***Submission of NOI.*** Copies of Notices of Intent (NOIs) for proposed stormwater discharges must be submitted to the Tribe's Environmental Management Office for review and comment by the Tribal Environmental Protection Agency (TEPA) Board.

9.9.3.3 Hoopa Valley Tribe (California).

The following conditions apply only to discharges on the Hoopa Valley Tribe:

9.9.3.3.1 ***Submission of NOI.*** All Notices of Intent (NOI) submitted for stormwater discharges under the general permits in Hoopa Valley Indian Reservation (HVIR) shall be submitted to the Tribal Environmental Protection Agency (TEPA).

9.9.3.3.2 ***Submission of SWPPP.*** All Stormwater Pollution Plans (SWPPPs) for stormwater discharges in HVIR shall be submitted to TEPA for review and approval.

9.9.3.4 Twenty-Nine Palms Band of Mission Indians (California)

The following conditions apply only to discharges on the Twenty-Nine Palms Band of Mission Indians:

9.9.3.4.1 ***Submission of NOI.*** Notices of Intent (NOI) must be submitted to the 29 Palms Tribal EPA for review, comment, and tracking.

9.9.3.4.2 ***Submission of SWPPP.*** Copies of Stormwater Pollution Prevention Plans (SWPPPs) and supporting best management practices (BMPs) must be submitted to the 29 Palms Tribal EPA for review and compliance.

9.9.3.4.3 ***Submission of Monitoring Data.*** Copies of all monitoring reports must be provided to the 29 Palms Tribal EPA.

9.9.4 GUR050000: The Island of Guam.

No additional requirements.

9.9.5 JAR050000: Johnston Atoll.

No additional requirements.

9.9.6 MWR050000: Midway Island and Wake Island.

No additional requirements.

9.9.7 Commonwealth of the Northern Mariana Islands

The following conditions apply only to discharges on the Commonwealth of the Northern Mariana Islands (CNMI):

9.9.7.1 Submission of NOI. Pursuant to Part 10.3(h)(5) of the Standards, every Notice of Intent (NOI) submitted to EPA for activities in the CNMI that are to be covered under this permit must be postmarked no less than seven (7) calendar days prior to any stormwater discharges and a copy must be submitted to the Director of Division of Environmental Quality (DEQ) no later than seven (7) calendar days prior to any stormwater discharges.

9.9.7.2 Submission of SWPPP. Pursuant to Part 10.3(h)(3) of the Standards, for any activity subject to the permit in the CNMI, a Stormwater Pollution Prevention Plan (SWPPP) for stormwater discharges associated with industrial activities must be submitted to DEQ and approved by the Director of DEQ prior to submission of the NOI to EPA.

9.9.7.3 Submission of SWPPP Approval Letter. Pursuant to Part 10.3(h)(4) of the Standards, every NOI submitted to EPA for activities in the CNMI that are to be covered under this permit must be accompanied by a SWPPP approval letter from DEQ.

9.9.7.4 Submission of Monitoring Data. Pursuant to Part 10.3(h)(6) of the Standards, permittees covered under this permit must submit copies of all monitoring reports to DEQ.

9.9.7.5 Certification. Pursuant to Section 10.6 of the Standards, this certification shall be subject to amendment or modification if and to the extent that existing water quality standards are made more stringent, or new water quality standards are adopted, by DEQ.

This certification does not relieve the applicant from obtaining other applicable local or federal permits.

9.9.8 NVR05000I: Indian Country lands within the State of Nevada, including the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Confederated Tribes of the Goshute Reservation in Utah

9.9.8.1 Pyramid Lake Paiute Tribe (Nevada)

The following conditions apply only to discharges on the Pyramid Lake Paiute Tribe:

9.9.8.1.1 Submission of NOI. Notice of Intents (NOI) must be submitted to the Tribe for review, comments, and tracking.

9.9.8.1.2 ***Submission of SWPPP.*** **C**opies of Stormwater Pollution Prevention Plans (SWPPPs) and supporting best management practices (BMPs) must be submitted to the Pyramid Lake Paiute Tribe for review and concurrence.

9.9.8.1.3 ***Submission of Monitoring Data.*** Copies of all monitoring reports must be submitted to the Pyramid Lake Paiute Tribe.

9.10 Region 10

9.10.1 AKR050000: The State of Alaska, except Indian Country lands.

[Reserved for additional requirements to be included upon permit issuance.]

9.10.2 AKR05000I: Indian Country lands within Alaska

No additional requirements.

9.10.3 IDR050000: The State of Idaho, except Indian Country lands

[Reserved for additional requirements to be included upon permit issuance.]

9.10.4 IDR05000I: Indian Country lands within the State of Idaho, except Duck Valley Reservation lands, which are covered under Nevada permit NVR05000I listed in Part C.9

[Reserved for additional requirements to be included upon permit issuance.]

9.10.5 ORR05000I: Indian Country lands within the State of Oregon, except Fort McDermitt Reservation lands, which are covered under Nevada permit NVR05000I listed in Part C.9

[Reserved for additional requirements to be included upon permit issuance.]

9.10.6 WAR05000I: Indian Country lands within the State of Washington

[Reserved for additional requirements to be included upon permit issuance.]

9.10.7 WAR05000F: Federal Facilities in the State of Washington, except those located on Indian Country lands

[Reserved for additional requirements to be included upon permit issuance.]

Appendix A

Definitions, Abbreviations and Acronyms

Appendix A. Definitions, Abbreviations, and Acronyms (for the purposes of this permit)**.**

Action Area – all areas to be affected directly or indirectly by the stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities, and not merely the immediate area involved in these discharges and activities.

Arid Climate – areas where annual rainfall averages from 0 to 10 inches.

Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.

Co-located Industrial Activities – Any industrial activities, excluding your primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified by the SIC code list in Appendix D.

Control Measure – refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

Director – a Regional Administrator of the Environmental Protection Agency or an authorized representative. See 40 CFR 122.2.

Discharge – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

Discharge of a pollutant – any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

Discharge-related activities – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

Drought-stricken area – a period of below average water content in streams, reservoirs, ground-water aquifers, lakes and soils.

EPA Approved or Established Total Maximum Daily Loads (TMDLs) – "EPA Approved TMDLs" are those that are developed by a State and approved by EPA. "EPA Established TMDLs" are those that are developed by EPA.

Existing Discharger – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

Facility or Activity – any NPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

Federal Facility – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the federal government.

Impaired Water (or "Water Quality Impaired Water" or "Water Quality Limited Segment") – A water is impaired for purposes of this permit if it has been identified by a State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 CFR 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

Indian Country – (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States, whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe. (18 U.S.C. 1151)

Industrial Activity – the 10 categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity" as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Industrial Stormwater – stormwater runoff from industrial activity.

Municipal Separate Storm Sewer – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying stormwater;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

New Discharger – a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Source – any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

- after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

New Source Performance Standards (NSPS) – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

No exposure – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

Operator – any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:

(i) The entity has operational control over industrial activities, including the ability to modify those activities; or
(ii) The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

Person – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

Point source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. See 40 CFR 122.2.

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

Pollutant of concern – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

Primary industrial activity – includes any activities performed on-site which are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.

Qualified Personnel – Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can also evaluate the effectiveness of control measures.

Reportable Quantity Release – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

Runoff coefficient – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

Semi-Arid Climate – areas where annual rainfall averages from 10 to 20 inches.

Significant materials – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. See 40 CFR 122.26(b)(12).

Special Aquatic Sites – sites identified in 40 CFR 230 Subpart E. These are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

Stormwater Discharges Associated with Construction Activity – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Stormwater Discharges Associated with Industrial Activity – the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

Tier 2 Waters – For antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), Tier 2 waters are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

Tier 2.5 Waters – For antidegradation purposes, Tier 2.5 waters are those waters designated by States or Tribes as neither Tier 2 nor Tier 3. States have special requirements for these waters.

These waters are given a level of protection equal to and above that given to Tier 2 waters, but less than that given Tier 3 waters.

Tier 3 Waters – For antidegradation purposes, pursuant to 40 CFR 131.12(a)(3), Tier 3 waters are identified by states as having high quality waters constituting an Outstanding Natural Resource Water (ONRW), such as waters of National Parks and State Parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

Total Maximum Daily Loads (TMDLs) – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Water Quality Impaired – See 'Impaired Water'.

Water Quality Standards – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States and EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)). Water quality standards also include an antidegradation policy. See P.U.D. o. 1 of Jefferson County et al v. Wash Dept of Ecology et al, 511 US 701, 705 (1994).

"You" and "Your" – as used in this permit are intended to refer to the permittee, the operator, or the discharger as the context indicates and that party's facility or responsibilities. The use of "you" and "your" refers to a particular facility and not to all facilities operated by a particular entity. For example, "you must submit" means the permittee must submit something for that particular facility. Likewise, "all your discharges" would refer only to discharges at that one facility.

A.2. ABBREVIATIONS AND ACRONYMS

BAT – Best Available Technology Economically Achievable

BOD5 – Biochemical Oxygen Demand (5-day test)

BMP – Best Management Practice

BPJ – Best Professional Judgment

BPT – Best Practicable Control Technology Currently Available

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CGP – Construction General Permit

COD – Chemical Oxygen Demand

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)

CWT – Centralized Waste Treatment

DMR – Discharge Monitoring Report

EPA – U. S. Environmental Protection Agency

ESA – Endangered Species Act

FWS – U. S. Fish and Wildlife Service

LA – Load Allocations

MDMR – MSGP Discharge Monitoring Report

MGD – Million Gallons per Day

MOS – Margin of Safety

MS4 – Municipal Separate Storm Sewer System

MSDS – Material Safety Data Sheet

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NMFS – U. S. National Marine Fisheries Service

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NRHP – National Register of Historic Places

NSPS – New Source Performance Standard

NTU – Nephelometric Turbidity Unit

OMB – U. S. Office of Management and Budget

ORW – Outstanding Resource Water

OSM – U. S. Office of Surface Mining

POTW – Publicly Owned Treatment Works

RCRA – Resource Conservation and Recovery Act

RQ – Reportable Quantity

SARA – Superfund Amendments and Reauthorization Act

SHPO – State Historic Preservation Officer

SIC – Standard Industrial Classification

SMCRA – Surface Mining Control and Reclamation Act

SPCC – Spill Prevention, Control, and Countermeasures

SWPPP – Stormwater Pollution Prevention Plan

THPO – Tribal Historic Preservation Officer

TMDL – Total Maximum Daily Load

TSDF – Treatment, Storage, or Disposal Facility

TSS – Total Suspended Solids

USGS – United States Geological Survey

WLA – Wasteload Allocation

WQS – Water Quality Standard

Appendix B
Standard Permit Conditions

Appendix B. Standard Permit Conditions.

Standard permit conditions in Appendix B are consistent with the general permit provisions required under 40 CFR 122.41.

B.1 Duty To Comply.

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

A. You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement.

B. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (61 FR 252, December 31, 1996, pp. 69359-69366, as corrected in 62 FR 54, March 20, 1997, pp.13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every 4 years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties following were adjusted for inflation starting in 1996.

1. Criminal Penalties.

1.1 Negligent Violations. The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than two years, or both.

1.2. *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

1.3. *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not more than $1,000,000 and can fined up to $2,000,000 for second or subsequent convictions.

1.4. *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

2. *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $32,500 per day for each violation).

3. *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows

3.1. *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $32,500).

3.2. *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $157,500).

B.2 Duty to Reapply.

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain authorization as required by the new permit once EPA issues it.

B.3 Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.4 Duty to Mitigate.

You must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

B.5 Proper Operation and Maintenance.

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

B.6 Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B.7 Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privileges.

B.8 Duty to Provide Information.

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA or an authorized representative upon request, copies of records required to be kept by this permit.

B.9 Inspection and Entry.

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B.10 Monitoring and Records.

A. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.

C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;

2. The individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed

4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of such analyses.

D. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

B.11 Signatory Requirements.

A. All applications, including NOIs, must be signed as follows:

1. For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for

the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

B. Your SWPPP, including changes to your SWPPP to document any corrective actions taken as required by Part 3.1, and all reports submitted to EPA, must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

C. All other changes to your SWPPP, and other compliance documentation required under Part 5.4, must be signed and dated by the person preparing the change or documentation.

D. Changes to Authorization. If an authorization under Appendix B, Subsection 11.B is no longer accurate because the industrial facility has been purchased by a different entity, a new NOI satisfying the requirements of Subsection 11.B must be submitted to EPA. See Table 1-2 in Part 1.3.1 of the permit. However, if the only change that is occurring is a change in contact information or a change in the facility's address, the operator need only make a modification to the existing NOI submitted for authorization.

E. Any person signing documents in accordance with Appendix B, Subsections 11.A or 11.B above must include the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

B.12 Reporting Requirements.

A. Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

B. Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Transfers. This permit is not transferable to any person except after notice to EPA. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination pursuant to Part 1.4. The new owner or operator must submit a Notice of Intent in accordance with Part 1.3.1 and Table 1-2. See also requirements in Appendix B, Subsections 11.B and 11.D.

D. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

1. Pursuant to Part 7.1, all monitoring data collected pursuant to Part 6.2 and 6.3 must be submitted to EPA using EPA's online eNOI system (www.epa.gov/npdes/eNOI). Alternatively, if you cannot access eNOI, monitoring results should be reported on the MSGP Discharge Monitoring Report (MDMR) form, available at www.epa.gov/npdes/stormwater/msgp, and submitted to EPA.

2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the MDMR.

3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean. For averaging purposes, use a value of zero for any

individual sample parameter, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

F. Twenty-four hour reporting.

1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

2. The following shall be included as information which must be reported within 24 hours under this paragraph.

   a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(m)(3)(ii))

   b. Any upset which exceeds any effluent limitation in the permit

   c. Violation of a maximum daily discharge limit for any numeric effluent limitation. (See 40 CFR 122.44(g).)

3. EPA may waive the written report on a case-by-case basis for reports under Appendix B, Subsection 12.F.2 if the oral report has been received within 24 hours.

G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix B, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix B, Subsection 12.F.

H. Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

B.13 Bypass.

A. Definitions.

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility See 40 CFR 122.41(m)(1)(i).

2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix B, Subsections 13.C and 13.D. See 40 CFR 122.41(m)(2).

C. Notice.

1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR 122.41(m)(3)(i).

2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix B, Subsection 12.F (24-hour notice). See 40 CFR 122.41(m)(3)(ii).

D. Prohibition of bypass. See 40 CFR 122.41(m)(4).

1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. You submitted notices as required under Appendix B, Subsection 13.C.

2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix B, Subsection 13.D.1.

B.14 Upset.

A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR 122.41(n)(1).

B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix B, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. See 40 CFR 122.41(n)(2).

C. Conditions necessary for a demonstration of upset. See 40 CFR 122.41(n)(3). A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that you can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated; and

3. You submitted notice of the upset as required in Appendix B, Subsection 12.F.2.b (24 hour notice).

4. You complied with any remedial measures required under Appendix B, Subsection 4.

D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof. See 40 CFR 122.41(n)(4).

Appendix C
Areas Covered

Appendix C. Permit Area.

EPA can only provide permit coverage in these areas and for classes of discharges that are outside the scope of a State's NPDES program authorization.

C.1 EPA Region 1: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 1:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
CTR05000I	Indian Country within the State of Connecticut
MAR050000	Commonwealth of Massachusetts, except Indian Country
MAR05000I	Indian Country within the Commonwealth of Massachusetts
NHR050000	State of New Hampshire
RIR05000I	Indian Country within the State of Rhode Island
VTR05000F	Federal facilities in the State of Vermont

For stormwater discharges in EPA Region 1 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.2 EPA Region 2: New Jersey, New York, Puerto Rico, Virgin Islands.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 2:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
PRR050000	Commonwealth of Puerto Rico

For stormwater discharges in EPA Region 2 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.3 EPA Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 3:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
DCR050000	District of Columbia
DER05000F	Federal facilities in the State of Delaware

For stormwater discharges in EPA Region 3 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.4 EPA Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee (Coverage not available under this permit).

For stormwater discharges in EPA Region 4, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.5 EPA Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 5:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
MIR05000I	Indian Country within the State of Michigan
MNR05000I	Indian Country within the State of Minnesota
WIR05000I	Indian Country within the State of Wisconsin, except those on Sokaogon Chippewa Community lands

For stormwater discharges in EPA Region 5 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.6 EPA Region 6: Arkansas, Louisiana, Oklahoma, Texas, and New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands).

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 6:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
LAR05000I	Indian Country within the State of Louisiana
NMR050000	The State of New Mexico, except Indian Country
NMR05000I	Indian Country within the State of New Mexico, except Ute Mountain Reservation lands that are covered under Colorado permit COR05000I listed in Part C.8 and Navajo Reservation lands that are covered under Arizona permit AZR05000I listed in Part C.9.
OKR05000I	Indian Country within the State of Oklahoma
OKR05000F	Facilities in the State of Oklahoma not under the jurisdiction of the Oklahoma Department of Environmental Quality, except those on Indian Country. EPA jurisdiction facilities include SIC Codes 1311, 1381, 1382, 1389, and 5171 and point source (but not nonpoint source) discharges associated with agricultural production, services, and silviculture.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
TXR05000F	Facilities in the State of Texas not under the jurisdiction of the Texas Commission on Environmental Quality, except those on Indian Country. EPA-jurisdiction facilities include SIC Codes 1311, 1321, 1381, 1382, and 1389 (other than oil field service company "home base" facilities).
TXR05000I	Indian Country within the State of Texas

For stormwater discharges in EPA Region 6 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.7 EPA Region 7: Iowa, Kansas, Missouri, Nebraska (Coverage not available under this permit).

For stormwater discharges in EPA Region 7, please contact EPA Region 7 or your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.8 EPA Region 8: Colorado, Montana, North Dakota, South Dakota, Wyoming, Utah (Coverage not available under this permit).

For stormwater discharges in EPA Region 8 please contact EPA Region 8 or your State NPDES permitting authority to obtain coverage under an NPDES permit.

C.9 EPA Region 9: California, Hawaii, Nevada, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Confederated Tribes of the Goshute Reservation in Utah and Nevada, Indian Country within the State of Arizona including the Navajo Reservation in Utah and New Mexico and Arizona, the Duck Valley Reservation in Idaho, and the Fort McDermitt Reservation in Oregon.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 9:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
ASR050000	The islands of American Samoa
AZR05000I	Indian Country within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah
CAR05000I	Indian Country within the State of California
GUR050000	The island of Guam
JAR050000	Johnston Atoll
MWR050000	Midway Island and Wake Island
NIR050000	Commonwealth of the Northern Mariana Islands
NVR05000I	Indian Country within the State of Nevada, including the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Confederated Tribes of the Goshute Reservation in Utah

For stormwater discharges in EPA Region 9 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

C.10 Region 10: Alaska, Idaho (except see Region 9 for Duck Valley Reservation lands), Oregon (except see Region 9 for Fort McDermitt Reservation), Washington.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 10:

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
AKR050000	The State of Alaska, except Indian Country lands **[coverage not yet available]**
AKR05000I	Indian Country lands within Alaska
IDR050000	The State of Idaho, except Indian Country lands **[coverage not yet available]**
IDR05000I	Indian Country lands within the State of Idaho, except Duck Valley Reservation lands, which are covered under Nevada permit NVR05000I listed in Part C.9 **[coverage not yet available]**
ORR05000I	Indian Country lands within the State of Oregon, except Fort McDermitt Reservation lands, which are covered under Nevada permit NVR05000I listed in Part C.9 **[coverage not yet available]**
WAR05000I	Indian Country lands within the State of Washington **[coverage not yet available]**
WAR05000F	Federal facilities in the State of Washington, except those located on Indian Country lands **[coverage not yet available]**

For stormwater discharges in EPA Region 10 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

Appendix D
Activities Covered

Appendix D. Facilities and Activities Covered

Your permit eligibility is limited to discharges from facilities in the "sectors" of industrial activity summarized in Table D-1. These sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. References to "sectors" in this permit (e.g., sector-specific monitoring requirements) refer to these groupings.

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code[1]	Activity Represented
SECTOR A: TIMBER PRODUCTS		
A1	2421	General Sawmills and Planing Mills
A2	2491	Wood Preserving
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
	2499	Wood Products, Not Elsewhere Classified
A5	2441	Nailed and Lock Corner Wood Boxes and Shook
SECTOR B: PAPER AND ALLIED PRODUCTS		
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes
SECTOR C: CHEMICALS AND ALLIED PRODUCTS		
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one sector/subsector)	**SIC Code or Activity Code[1]**	**Activity Represented**
	2861-2869	Industrial Organic Chemicals
	2891-2899	Miscellaneous Chemical Products
	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors
	2911	Petroleum Refining
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS		
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS		
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3275	Concrete, Gypsum, and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products
SECTOR F: PRIMARY METALS		
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products
SECTOR G: METAL MINING (ORE MINING AND DRESSING)		
G1	1021	Copper Ore and Mining Dressing Facilities
G2	1011	Iron Ores
	1021	Copper Ores
	1031	Lead and Zinc Ores
	1041, 1044	Gold and Silver Ores
	1061	Ferroalloy Ores, Except Vanadium
	1081	Metal Mining Services
	1094, 1099	Miscellaneous Metal Ores

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one sector/subsector)	**SIC Code or Activity Code[1]**	**Activity Represented**
SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES		
H1	1221-1241	Coal Mines and Coal Mining-Related Facilities
SECTOR I: OIL AND GAS EXTRACTION AND REFINING		
I1	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services
SECTOR J: MINERAL MINING AND DRESSING		
J1	1442	Construction Sand and Gravel
	1446	Industrial Sand
J2	1411	Dimension Stone
	1422-1429	Crushed and Broken Stone, Including Rip Rap
	1481	Nonmetallic Minerals Services, Except Fuels
	1499	Miscellaneous Nonmetallic Minerals, Except Fuels
J3	1455, 1459	Clay, Ceramic, and Refractory Materials
	1474-1479	Chemical and Fertilizer Mineral Mining
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES		
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under subtitle C of RCRA
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS		
L1	LF	All Landfill, Land Application Sites and Open Dumps
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
SECTOR M: AUTOMOBILE SALVAGE YARDS		
M1	5015	Automobile Salvage Yards
SECTOR N: SCRAP RECYCLING FACILITIES		
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
N2	5093	Source-separated Recycling Facility
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES		
O1	SE	Steam Electric Generating Facilities, including coal handling sites
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one sector/subsector)	**SIC Code or Activity Code[1]**	**Activity Represented**
	5171	Petroleum Bulk Stations and Terminals
SECTOR Q: WATER TRANSPORTATION		
Q1	4412-4499	Water Transportation Facilities
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
SECTOR S: AIR TRANSPORTATION FACILITIES		
S1	4512-4581	Air Transportation Facilities
SECTOR T: TREATMENT WORKS		
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA
SECTOR U: FOOD AND KINDRED PRODUCTS		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
	2021-2026	Dairy Products
	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products
SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS		
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
SECTOR W: FURNITURE AND FIXTURES		
W1	2434	Wood Kitchen Cabinets
	2511-2599	Furniture and Fixtures

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one sector/subsector)	**SIC Code or Activity Code[1]**	**Activity Represented**
SECTOR X: PRINTING AND PUBLISHING		
X1	2711-2796	Printing, Publishing, and Allied Industries
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	3991-3999	Miscellaneous Manufacturing Industries
SECTOR Z: LEATHER TANNING AND FINISHING		
Z1	3111	Leather Tanning and Finishing
SECTOR AA: FABRICATED METAL PRODUCTS		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving
SECTOR AB: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY		
AB1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector AC)
	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)
SECTOR AC: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS		
AC1	3571-3579	Computer and Office Equipment
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one sector/subsector)	**SIC Code or Activity Code[1]**	**Activity Represented**
SECTOR AD: NON-CLASSIFIED FACILITIES		
AD1		Other stormwater discharges designated by the Director as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) & (D)) or any facility discharging stormwater associated with industrial activity not described by any of Sectors A-AC. NOTE: Facilities may not elect to be covered under Sector AD. Only the Director may assign a facility to Sector AD.

[1] A complete list of SIC Codes (and conversions from the newer North American Industry Classification System" (NAICS)) can be obtained from the Internet at www.census.gov/epcd/www/naics.html or in paper form from various locations in the document titled *Handbook of Standard Industrial Classifications*, Office of Management and Budget, 1987.

Appendix E
Procedures Relating to Endangered Species Protection

Appendix E. Procedures Relating to Endangered Species Protection

E.1 Assessing the Effects of Your Discharge and Discharge-Related Activities

You must follow the procedures in this appendix to assess the potential effects of applicable stormwater discharges, discharge-related activities, and allowable non-stormwater discharges on listed species and their critical habitat and determine which of the eligibility criterion (see Part E.2), if any, you qualify under. In accordance with Part 5.1.6.1 of this permit, you must keep documentation with your SWPPP to support your determination of eligibility under Part 1.1.4.5, including the process employed and results of the endangered species investigation.

If you are seeking renewal of coverage under the MSGP, you must complete this analysis using any data collected when your site was fully active and operational, even if you are now claiming that your site is inactive and no industrial materials or activities are exposed to stormwater. If no such data exist for your facility, you should utilize the best available information from any industrial facility(ies) expected to discharge substantially similar effluents, based on the similarities of the general industrial activity, control measures, and runoff coefficients of their drainage areas. You should contact EPA if you need assistance in obtaining data from a facility with a substantially similar effluent.

When evaluating the potential effects of your activities, you must consider effects to listed species or critical habitats within the "action area." Action area is defined in Appendix B as all areas affected directly or indirectly by the stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities, and not merely the immediate area involved in these discharges and activities. This includes areas beyond the footprint of the facility that are likely to be affected by stormwater discharges, discharge-related activities, and allowable non-stormwater discharges. For example, normal construction, operations and maintenance activities can result in noise impacts and discharges of pollutants into downstream areas which can increase the "action area" beyond the footprint of the facility. "Facility" is defined in Appendix A.

Step One: *Determine if the Eligibility Requirements of Criterion B, C, or F Can Be Met.*

You should first determine whether you are eligible under Criteria B, C, or F because of a previously completed ESA section 7 consultation, a previously issued ESA Section 10 permit, or because your activities were already addressed in another discharger's certification of eligibility as follows:

i. The effects of your activities have been addressed in a consultation under ESA Section 7 on a separate Federal action (check box B corresponding to Criterion B).

ii. The effects of your activities have been addressed through approval of a Habitat Conservation Plan under Section 10 of the ESA (check box C corresponding to Criterion C). Stormwater discharges from your industrial facility may be

authorized by this MSGP if some activity is authorized through the issuance of a permit under section 10 of the ESA and that authorization addressed the effects of your stormwater discharges on federally-listed species and designated critical habitat. You must follow U.S. Fish and Wildlife Service (FWS) and/or National Marine Fisheries Service, also known as NOAA Fisheries (NMFS) procedures when applying for an ESA Section 10 permit (see 50 CFR 17.22(b)(1) for FWS and 222.22 for NMFS). Application instructions for section 10 permits for FWS and NMFS can be obtained by accessing the FWS and NMFS websites (www.fws.gov and www.nmfs.noaa.gov) or by contacting the appropriate FWS and NMFS regional office.

iii. You are covered under the eligibility certification of another operator for the project area (check box F corresponding to Criterion F). Your stormwater discharges, discharge-related activities, and allowable non-stormwater discharges were already addressed in another discharger's certification of eligibility under Criteria A, B, C, D, or E, which also included your facility and determined that federally listed endangered or threatened species or designated critical habitat would not be jeopardized. To certify eligibility under this criterion there must be no lapse of coverage in the other operator's certification. By certifying eligibility under Criterion F, you agree to comply with any measures or controls upon which the other discharge certification under Criterion B, C, or D was based. If your certification is based on another operator's certification under Criterion E, that certification is valid only if you have documentation showing that the other operator had certified under Criterion E, and you provide EPA with the relevant supporting information in your NOI form. Certification under Criterion F is discussed in more detail in the Fact Sheet that accompanies this permit.

Step Two: *Determine if Listed Threatened or Endangered Species and Critical Habitat are Present in the Action Area.*

Next, you should first determine whether federally-listed species are likely to occur in your action area. If you determine that there is a federally-listed species likely to occur in your action area, follow Step 3. If you determine that there are no federally-listed species likely to occur in your action area, you can certify that the facility meets Criteria A (check box A corresponding to Criteria A).

You can do this by obtaining a list of threatened and endangered species that are likely to occur in your general area, including the appropriate receiving water for your discharges. County-specific or sometimes township-specific lists of Federally threatened and endangered species are available from the local offices of FWS, and NMFS, or on their internet sites. The types of species that are likely to be present determine which Service office you should contact (in general, NMFS has jurisdiction over marine, estuarine, and anadromous species). Visit www.epa.gov/npdes/stormwater/cgp to find the appropriate site for your state or check with your local Service office. If there are listed species in your county or township, you must then determine, as best you are able, whether any of the species are likely to occur in your action area

(use the Services or State and Tribal Heritage Centers, as necessary). General species information can be found at www.fws.gov/endangered/wildlife/html.

You must also check to see if critical habitat has been designated and whether such areas overlap your action area. Critical habitat should be listed on the species list for your county or township available from the appropriate Service office. You can also find critical habitat designations at 50 CFR Parts 17 and 226 www.access.gpo.gov and at www.fws.gov/endangered/wildlife/html.

If there are no listed species and no critical habitat areas that overlap your action area, or if your local FWS or NMFS indicates that listed species are not likely to occur in your action area, you have satisfied your eligibility obligations under Criterion A (check box A on the Notice of Intent Form). If there are listed species and if you determine or your local FWS, NMFS, or State or Tribal Heritage Center indicates that these species could occur in the action area, you will need to evaluate whether your action area supports habitat(s) that are suitable for listed species or the constituent elements of critical habitat. Your evaluation may utilize one or more of the following approaches:

Gather information about the species and critical habitat that are likely to occur in your action area (www.fws.gov/endangered/wildlife.html). Conduct a visual inspection of the action area to assess the potential presence of listed species and their habitats. Compare the size and types of habitats available in your action area and adjacent areas with the size and types of habitats used by listed species and constituent elements of critical habitat. This method may be particularly suitable for facilities where the action area is smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for facilities that discharge directly into municipal separate storm sewer systems.

Conduct a formal biological survey (typically performed by environmental consulting firms). In some cases, biological surveys may be an appropriate way to assess whether species are likely to be located in the action area and whether there could be adverse effects to such species. A biological survey may in some cases be useful in conjunction with Steps Two, Three or Four of these instructions. However, biological surveys can often be inconclusive and some survey methods may require a special State or Federal permit. You should coordinate with the appropriate Service office before conducting biological surveys for threatened and endangered species.

Reference an environmental assessment completed for the site under the National Environmental Policy Act (NEPA). Such assessments may indicate whether listed species and critical habitats are likely to occur in the action area. Coverage under this MSGP may trigger a requirement for such an assessment for new sources (that is, dischargers subject to New Source Performance Standards under section 306 of the Clean Water Act). Other facilities might require an assessment under NEPA for other reasons, such as federal funding or other federal involvement in the facility. If the action area likely supports listed threatened or endangered species or critical habitat, you must evaluate the potential for impacts to species and/or habitat when following Steps Three through Five. Note that many but not all measures implemented to protect listed species under these steps will also protect critical habitat. Thus, meeting the

eligibility requirements of this MSGP may require measures to protect critical habitat that are separate from those to protect listed species.

Step Three: *Determine if your Activities Are Not Likely to Adversely Affect Listed Threatened or Endangered Species or Designated Critical Habitat*

To receive MSGP coverage, you must analyze the effects of your activities, which may include not only your discharge, but also any construction, operation, and maintenance activities related to stormwater management. You must be able to conclude that your discharge and stormwater management related activities are not likely to adversely affect threatened or endangered species or designated critical habitat that are likely to occur in your action area. To arrive at this conclusion, you should be able to conclude that listed species and critical habitat are not likely to be exposed to the effects of your activities, or if they are exposed, they are not likely to respond to the effects, or if they do respond, the responses are not sufficient to reduce an individual's chances of surviving and reproducing or diminish the amount or suitability of constituent elements of critical habitat. Construction, operation, and maintenance of facilities related to your stormwater discharge can potentially result in the following adverse effects:

- **Hydrological.** Stormwater discharges may adversely affect receiving waters from pollutant parameters such as temperature, salinity or pH. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a stormwater discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely. Industrial activity itself may also alter drainage patterns on a site where construction occurs, which can impact listed species, their habitat, and critical habitat.

- **Habitat.** Outdoor activities, such as storage of materials and land disturbances associated with stormwater management-related activities, such as the installation or placement of stormwater control measures, may adversely affect listed species, their habitat, and critical habitat. Stormwater may drain or inundate listed species habitat.

- **Toxicity.** Pollutants in stormwater may have toxic effects on listed species and adversely affect critical habitat. Exceedances of benchmarks, effluent limitation guidelines, or State or Tribal water quality requirements may be indicative of potential adverse affects on listed species or critical habitat.

The scope of effects to consider will vary with each site. If you are having difficulty determining whether your facility is likely to adversely affect listed species or critical habitat, or one of the Services has already raised concerns to you, you must contact the appropriate office of the FWS or NMFS for assistance. If adverse effects are not likely, you have satisfied your eligibility obligations under Criterion E and you may proceed to submitting your NOI for coverage under the MSGP (check box E corresponding to Criterion E). As part of certifying your compliance with Criterion E, you must submit information to support your findings. If you are an existing discharger, you are required to (1) identify any pollutant parameters for which you have ever exceeded the benchmark or effluent limitations guideline, or have ever been found to have caused or contributed to an exceedance of an applicable water quality standard, or

violated a State or Tribal water quality requirement; (2) provide a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the action area; and (3) provide your rationale supporting your determination that you qualify under Criterion E. If you are a new discharger, you must provide the list of species or critical habitat and the technical evaluation (described in (2) and (3) above, respectively), and you must also include a list of the potential pollutants in your discharge.

If you can not yet conclude your stormwater discharge is not likely to adversely affect listed species or critical habitat, or if you conclude that your stormwater discharge could potentially adversely affect listed species or critical habitat, you must follow Step Four.

Step Four: *Determine if Measures Can Be Implemented to Avoid Adverse Effects or If Further Analysis Supports the Conclusion that Adverse Effects Are Not Likely.*

If you could not make a preliminary determination in Step 3 that adverse effects to listed species and/or critical habitat are not likely to occur, you can still receive coverage under Criterion E if appropriate measures are undertaken to avoid or eliminate the likelihood of adverse effects prior to applying for MSGP coverage. These measures may be relatively simple, e.g., re-routing a stormwater discharge to bypass an area where species are located, relocating control measures, or changing the "footprint" of the industrial activity. Provided you are able to install and implement appropriate measures, you may proceed to submitting your NOI for coverage under the MSGP (check box E corresponding to Criterion E). As part of certifying your compliance with Criterion E, you must submit information to support your findings. If you are an existing discharger, you are first required to (1) identify any pollutant parameters for which you have ever exceeded a benchmark or an effluent limitations guideline, or have ever been found to have caused or contributed to an exceedance of an applicable water quality standard, or violated a State or Tribal water quality requirement; (2) provide a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the action area; and (3) provide your rationale supporting your determination that you qualify under Criterion E, including a description of measures you will implement to avoid or eliminate the likelihood of adverse effects. If you are a new discharger, you must provide the list of species or critical habitat and the technical evaluation (described in (2) and (3) above, respectively), and you must also include a list of the potential pollutants in your discharge.

If you cannot ascertain which measures to implement to avoid the likelihood of adverse effects, you must follow Step Five.

Step Five: *Determine if the Eligibility Requirements of Criteria D Can Be Met.*

Where adverse effects are likely and you are unable to avoid or eliminate the likelihood of adverse effects, you must contact the FWS and/or NMFS. However, you may still be eligible for MSGP coverage if any likely adverse effects can be addressed through meeting Criteria D as follows:

You have coordinated your activities with the appropriate Service office (see Criterion D). In the absence of any other conditions set forth in Step Four, you may still be able to

qualify for coverage under this MSGP if you coordinate with the FWS or NMFS and the Service provides a letter or memorandum concluding that permitting your stormwater discharges under the MSGP is consistent with the "not likely to adversely affect" determination for the MSGP. If you adopt measures to avoid or eliminate adverse effects, per the Service's requirements or recommendations, you must abide by those measures for the duration of your coverage under the MSGP. Any such measures must be described in the Stormwater Pollution Prevention Plan and are enforceable MSGP conditions and/or conditions for meeting the eligibility criteria in Part 1.1.4.5.

You must comply with any terms and conditions imposed under the eligibility requirements to ensure that your stormwater discharges, discharge-related activities, and allowable non-stormwater discharges are protective of listed species and/or critical habitat. See Part 2.3 of the permit. If the eligibility requirements cannot be met, and maintained, then you are not eligible for coverage under this MSGP. In these instances, you may consider applying to EPA for an individual permit.

E.2 Eligibility Criterion

As required by Part 1.1.4.5, you must meet one or more of the following six criteria (A-F) to be eligible for coverage under the permit for your stormwater discharge, discharge-related activities, and allowable non-stormwater discharges:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat are likely to occur in the "action area"; or

Criterion B. Consultation between a Federal agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service (together, the "Services") under section 7 of the ESA has been concluded. Consultations can be either formal or informal, and would have occurred only as a result of a separate federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit).

The consultation must have addressed the effects of your facility's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in either:

i. a biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat; or

ii. written concurrence from the Service(s) with a finding that the facility's stormwater discharges associated with industrial activity, discharge-related activities and allowable non-stormwater discharges are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion C. Your industrial activities are authorized through the issuance of a permit under section 10 of the ESA, and authorization addresses the effects of the stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges on federally-listed species and federally-designated critical habitat; or

Criterion D. Coordination between you and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service has been concluded. The coordination must have addressed the effects of the facility's stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges on federally-listed threatened or endangered species and federally-designated critical habitat. The result of the coordination must be a written statement from the Service concluding that authorizing your stormwater discharges, discharge-related activities, and allowable non-stormwater discharges is consistent with the determination that the issuance of the MSGP is not likely to adversely affect federally-listed threatened or endangered species and federally-designated critical habitat. Any conditions or prerequisites deemed necessary to achieve consistency with the "not likely to adversely effect" determination become eligibility conditions for MSGP coverage, and permit requirements under Part 2.3; or

Criterion E. Authorizing your stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges is consistent with the determination that the issuance of the MSGP is not likely to adversely affect any federally-listed endangered and threatened ("listed") species or designated critical habitat ("critical habitat"). To support your determination that you meet Criterion E, you must provide supporting documentation for your determination.

i. If you are an existing discharger, you must provide the following information with your completed Notice of Intent (NOI) form: (1) a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the "action area"; (2) a list of the pollutant parameters for which you have ever exceeded the benchmark or applicable effluent limitations guideline, or for which you have ever been found to have caused or contributed to an exceedance of an applicable water quality standard or to have violated a State or Tribal water quality requirement (Part 9); and (3) your rationale supporting your determination that you meet Criterion E, including appropriate measures to be undertaken to avoid or eliminate the likelihood of adverse effects.

ii. If you are a new discharger, you must provide the following information with your completed NOI form: (1) a list of the federally-listed threatened or endangered species or their designated critical habitat that are likely to occur in the "action area"; (2) a list of the potential pollutants in your discharge; and (3) your rationale supporting your determination that you meet Criterion E, including

appropriate measures to be undertaken to avoid or eliminate the likelihood of adverse effects; or

Criterion F. The facility's stormwater discharges associated with industrial activity, discharge-related activities, and allowable non-stormwater discharges were already addressed in another operator's valid certification of eligibility that included the industrial activities and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify eligibility under this criterion there must be no lapse of coverage in the other operator's certification. By certifying eligibility under this criterion, you agree to comply with any measures or controls upon which the other operator's certification was based. You must comply with any applicable terms, conditions, or other requirements developed in the process of meeting the eligibility requirements of the criteria in this section to remain eligible for coverage under this permit. Documentation must be kept with your SWPPP. If your certification is based on another operator's certification under Criterion E, that certification is valid only if you have documentation showing that the other operator had certified under Criterion E, and you provide EPA with the relevant supporting information required of existing dischargers in Criterion E (above, under subparagraph (i)) in your NOI form.

Appendix F
Procedures Relating to Historic Properties Preservation

Appendix F – Procedures Relating to Historic Properties Preservation

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal "undertakings" on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term Federal "undertaking" is defined in the NHPA regulations to include a project, activity, or program of a Federal agency including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA's issuance of the Multi-Sector General Permit is a Federal undertaking within the meaning of the NHPA regulations. To address any issues relating to historic properties in connection with issuance of the permit, EPA has included criteria for applicants to certify that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. Although individual applications for coverage under the general permit do not constitute separate Federal undertakings, the screening criteria and certifications provide an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the permit. Applicants seeking coverage under the MSGP are thus required to make certain certifications regarding the potential effects of their stormwater discharge, allowable non-stormwater discharge, and discharge-related activities on properties listed or eligible for listing on the National Register of Historic Places.

You must meet one or more of the four criteria (A-D), which are also included in Part 1.1.4.6, to be eligible for coverage under this permit.

Criterion A. Your stormwater discharges and allowable non-stormwater discharges do not have the potential to have an effect on historic properties and you are not constructing or installing new stormwater control measures on your site that cause subsurface disturbance; or

Criterion B. Your discharge-related activities (i.e., construction and/or installation of stormwater control measures that involve subsurface disturbance) will not affect historic properties; or

Criterion C. Your stormwater discharges, allowable non-stormwater discharges, and discharge-related activities have the potential to have an effect on historic properties, and you have obtained and are in compliance with a written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representative regarding measures to mitigate or prevent any adverse effects on historic properties, and you have either (1) obtained and are in compliance with a written agreement that outlines all such measures, or (2) been unable to reach agreement on such measures; or

Criterion D. You have contacted the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other tribal representative and EPA in writing informing them that you have the potential to have an effect on historic properties and you did not receive a response from the SHPO, THPO, or tribal representative within 30 days of receiving your letter.

If you have been unable to reach agreement with a SHPO, THPO, or other tribal representative regarding appropriate measures to mitigate or prevent adverse effects, EPA may notify you of additional measures you must implement in order to be eligible for coverage under this permit.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a Federal undertaking has no potential to have an effect on historic properties fulfills an agency's obligations under the NHPA. EPA has reason to believe that the vast majority of activities authorized under the MSGP have no potential to have effects on historic properties. The purpose of this permit is to control pollutants that may be transported in stormwater runoff from industrial facilities. EPA does not anticipate effects on historic properties from the pollutants in the stormwater and allowable non-stormwater discharges from these industrial facilities. Thus, to the extent EPA's issuance of this general permit authorizes discharges of such constituents, confined to existing stormwater channels or natural drainage areas; the permitting action does not have the potential to cause effects on historic properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit coverage. These existing dischargers should have already addressed NHPA issues in the 2000 MSGP as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) regarding methods of mitigating potential impacts. Both existing and new dischargers must follow the historic property screening procedures to determine their eligibility. EPA is not aware of any impacts on historic properties from activities covered under the 2000 MSGP, or, for that matter, any need for a written agreement. Therefore, to the extent this permit authorizes renewal of prior coverage without relevant changes in operations, it has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties where permittees construct and/or install stormwater control measures that involve subsurface disturbance and impact less than one (1) acre of land to comply with this permit. (Ground disturbances of one (1) acre or more require coverage under a different permit, the Construction General Permit.) Where you have to disturb the land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if you are establishing new or altering existing control measures to manage your stormwater that will involve subsurface ground disturbance of less than one (1) acre, you will need to ensure (1) that historic properties will not be impacted by

your activities or (2) that you have consulted with the appropriate SHPO, THPO, or other tribal representative regarding measures that would mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Subsurface Disturbance

EPA reviewed typical control measures currently employed to determine which practices involve some level of earth disturbance. The types of control measures that are presumptively expected to cause subsurface ground disturbance include:

- Dikes
- Berms
- Catch Basins
- Ponds
- Ditches
- Trenches
- Culverts
- Land manipulation: contouring, sloping, and grading
- Channels
- Perimeter Drains
- Swales

EPA cautions dischargers that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Historic Property Screening Process

You should follow the following screening process in order to certify your compliance with historic property eligibility requirements under this permit (see Part 1.1.4.6). The following four steps describe how applicants can meet the permit eligibility criteria for protection of historic properties under this permit:

Step One: *Are you an existing facility that is reapplying for certification under the 2008 MSGP?*

If you are an existing facility you should have already addressed NHPA issues. To gain coverage under the 2000 MSGP you were required to certify that you were either not affecting historic properties or had obtained written agreement from the relevant SHPO or THPO regarding methods of mitigating potential impacts. As long as you are not constructing or installing any new stormwater control measures then you have met eligibility Criterion A of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If you are an existing facility and will construct or install stormwater control measures that require subsurface disturbance of less than one (1) acre then you should proceed to Step Three. (Note: Construction activities disturbing one (1) acre or more are not eligible for coverage under this permit.)

If you are a new facility then you should proceed to Step Two.

Step Two: *Are you constructing or installing any stormwater control measures that require subsurface disturbance of less than one (1) acre?*

If, as part of your coverage under this permit, you are not building or installing control measures on your site that cause less than one (1) acre of subsurface disturbance, then your discharge-related activities do not have the potential to have an effect on historic properties. You have no further obligations relating to historic properties. You have met eligibility Criterion A of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If the answer to the Step Two question is yes, then you should proceed to Step Three.

Step Three: *Have prior earth disturbances determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?*

If previous construction either revealed the absence of historic properties or prior disturbances preclude the existence of historic properties, then you have no further obligations relating to historic properties. You have met eligibility Criterion B of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If the answer to the Step Three question is no, then you should proceed to Step Four.

Step Four: *Contact the appropriate historic preservation authorities*

Where you are building and/or installing control measures affecting less than one (1) acre of land to control stormwater or allowable non-stormwater discharges associated with this permit, and the answer to Step Three is no, then you should contact the relevant SHPO, THPO, or other tribal representative to determine the likelihood that artifacts, records, or remains are potentially present on your site. This may involve examining local records to determine if historic artifacts have been found in nearby areas, as well as limited surface and subsurface examination carried out by qualified professionals.

If through this process it is determined that such historic properties potentially exist and may be impacted by your construction or installation of control measures, you should contact the relevant SHPO, THPO, or tribal representative in writing and request to discuss mitigation or prevention of any adverse effects. The letter should describe your facility, the nature and location of subsurface disturbance activities that are contemplated, any known or suspected historic properties in the area, and any anticipated effects on such properties. The letter should state that if the SHPO, THPO, or tribal representative does not respond within 30 days of receiving your letter, you may submit your NOI without further consultation. EPA encourages applicants to contact the appropriate authorities as soon as possible in the event of a potential adverse effect to an historic property.

If the SHPO, THPO, or tribal representative sent you a response within 30 days of receiving your letter and you enter into, and comply with, a written agreement with the SHPO, THPO, or other tribal representative regarding how to address any adverse impacts on historic properties, you have met eligibility Criterion C. In this case, you should retain a copy of the written agreement consistent with Part 5.1.6.2 of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA delay authorization based on concerns about potential adverse impacts to historic properties. However, EPA would generally accept any written agreement as fully addressing such concerns unless new information was brought to the Agency's attention that was not considered in your previous discussions with the SHPO, THPO or other tribal representative.

If you receive a response within 30 days after the SHPO, THPO, or tribal representative received your letter and you consult with the SHPO, THPO or tribal representative regarding adverse impacts to historic properties and measures to mitigate them but an agreement cannot be reached between you and the SHPO, THPO, or other tribal representative, you have still met the eligibility for Criterion C. In this case you should include in your SWPPP a brief description of potential effects to historic properties, the consultation process, any measures you will adopt to address the potential adverse impacts, and any significant remaining disagreements between you and the SHPO, THPO or other tribal representative. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA delay authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If you have contacted the SHPO, THPO, or tribal representative in writing regarding your potential to have an effect on historic properties and the SHPO, THPO, or tribal representative did not respond within 30 days of receiving your letter, you have met eligibility Criterion D. You are advised to get a receipt from the post office or other carrier confirming the date on which your letter was received. In this case, you should submit a copy of your letter notifying the SHPO, THPO or tribal representative of potential impacts with your NOI. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may

request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

Addresses for State Historic Preservation Officers and Tribal Historic Preservation Officers may be found on the Advisory Council on Historic Preservation's website (www.achp.gov/programs.html). In instances where a Tribe does not have a Tribal Historic Preservation Officer, you should contact the appropriate Tribal government office when responding to this permit eligibility condition.

This Form Replaces Previous Form 2040-0086 (Please See Instructions Before Completing This Form)

NPDES FORM 3510-7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
NOTICE OF TERMINATION (NOT) OF COVERAGE UNDER A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Form Approved.
OMB No. 2040-0086

Submission of this Notice of Termination (NOT) constitutes notice that the party identified in Section B of this form is no longer authorized to discharge stormwater associated with industrial activity under the NPDES program for the facility identified in Section C of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

A. Permit Number:

1. NPDES Permit Tracking Number:

2. Reason for Termination (check one only):
   a. ☐ You transferred operational control to another operator.
   b. ☐ You no longer have a stormwater discharge associated with industrial activity subject to regulation under the NPDES program, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5.
   c. ☐ You are a Sector G, H, or J facility and you have met the applicable termination requirements.
   d. ☐ You obtained coverage under an alternative NPDES permit.

B. Facility Operator Information

1. Name:

2. IRS Employer Identification Number (EIN): –

3. Mailing Address:

a. Street:

b. City: c. State: d. Zip Code: -

e. Phone: - - f. Fax (optional): - - g. E-mail: _____

C. Facility Information

1. Facility Name:

2. Location Address:

a. Street

b. City:

c. County or similar government subdivision: d. State: e. Zip Code: -

D. Certifier Name and Title

I certify under penalty of law that I have met at least one of the reasons for terminating permit coverage listed in Section A.2 above. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge stormwater associated with industrial activity under this general permit, and that discharging pollutants in stormwater associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

Print Name:

Title:

Signature: Date:

E-mail: _____

Instructions for Completing the Notice of Termination for Stormwater Discharges Associated with INDUSTRIAL ACTIVITY under the Multi-Sector General Permit (MSGP)

Who May File Notice of Termination (NOT) Form

Permittees currently covered by EPA's NPDES Stormwater Multi-Sector General Permit may submit a Notice of Termination (NOT) form. You must submit an NOT within 30 days after one or more of the following conditions have been met:

- a new owner or operator has assumed responsibility for the facility; or
- you have ceased operations at the facility and there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5;
- you are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- you have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

See the MSGP Part 1.4 for more information.

Where to File NOT form

EPA encourages you to complete the NOT form online, via the Internet. The Electronic Notice of Intent System (eNOI) is found at www.epa.gov/npdes/eNOI. If you cannot access the electronic system, you must send the NOT to the address listed below.

NOTs sent regular mail:
Stormwater Notice of Termination (4203M)
USEPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

NOTs sent overnight/express
Stormwater Notice of Termination
US EPA East Building, Rm 7420
1201 Constitution Avenue, NW
Washington, D.C. 20004
(202) 564-9545

Completing the Form

To complete this form, type or print in uppercase letters in the appropriate areas only. Please make sure you complete all questions. Make sure you make a photocopy for your records before you send the completed original form to the address above. Please use ink when you sign the original document – DO NOT send copies. If you have any questions about this form, you may call the EPA's Stormwater Notice Processing Center at (866) 352-7755.

Section A. Permit Information

1. Enter the NPDES tracking number assigned by EPA's Stormwater Notice Processing Center to the facility. If you do not know the tracking number, you can find the tracking number assigned to your previous NOI on EPA's NOI Search website (www.epa.gov/npdes/noisearch).

2. Indicate your reason for submitting this Notice of Termination by checking the appropriate box (see MSGP Part 1.4 for more information).

Section B. Facility Operator Information

1. Give the legal name of the person, firm, public organization, or any other entity that operates the facility described in this application. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name.

2-3. Enter the facility operator's IRS Employer Identification Number (also know as the tax payer ID number). Enter the complete mailing address, email address and telephone number of the operator. This address will be used for any future correspondence between EPA and the facility operator.

Section C. Facility Information

1-2. Enter the facility's official or legal name and complete address, including city, county or similar government subdivision, state, and ZIP code.

Section D. Certification

Certification statement and signature (see Section B.11 of Appendix B of the MSGP for more information). Enter certifier's printed name, title and email address. Sign and date the form. Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality State, Federal, or other facility: by either a principal executive office or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 0.5 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Director, Office of Environmental Information Services, Collection Services Division (2823), USEPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include the OMB control number of this form on any correspondence. Do not send the completed NOT form to this address.

Appendix J
Calculating Hardness in Receiving Waters for Hardness Dependent Metals

Appendix J. Calculating Hardness in Receiving Waters for Hardness Dependent Metals

Overview

EPA adjusted the benchmarks for six hardness-dependent metals (i.e., cadmium, copper, lead, nickel, silver, and zinc) to further ensure compliance with water quality standards and provide additional protection for endangered species and their critical habitat. For any sectors required to conduct benchmark samples for a hardness-dependent metal, EPA includes 'hardness ranges' from which benchmark values are determined. To determine which hardness range to use, you must collect data on the hardness of your receiving water(s). Once the site-specific hardness data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within 25 mg/L ranges, as shown in Table 1.

Table 1. ***Hardness Ranges to Be Used to Determine Benchmark Values for Cadmium, Copper, Lead, Nickel, Silver, and Zinc.***

All Units mg/L	Benchmark Values (mg/L, total)					
	Cadmium	Copper	Lead	Nickel	Silver	Zinc
0-25 mg/L	0.0005	0.0038	0.014	0.15	0.0007	0.04
25-50 mg/L	0.0008	0.0056	0.023	0.20	0.0007	0.05
50-75 mg/L	0.0013	0.0090	0.045	0.32	0.0017	0.08
75-100 mg/L	0.0018	0.0123	0.069	0.42	0.0030	0.11
100-125 mg/L	0.0023	0.0156	0.095	0.52	0.0046	0.13
125-150 mg/L	0.0029	0.0189	0.122	0.61	0.0065	0.16
150-175 mg/L	0.0034	0.0221	0.151	0.71	0.0087	0.18
175-200 mg/L	0.0039	0.0253	0.182	0.80	0.0112	0.20
200-225 mg/L	0.0045	0.0285	0.213	0.89	0.0138	0.23
225-250 mg/L	0.0050	0.0316	0.246	0.98	0.0168	0.25
250+ mg/L	0.0053	0.0332	0.262	1.02	0.0183	0.26

How to Determine Hardness for Hardness-Dependent Parameters.

You may select one of three methods to determine hardness, including; individual grab sampling, grab sampling by a group of operators which discharge to the same receiving water, or using third-party data. Regardless of the method used, you are responsible for documenting the procedures used for determining hardness values. Once the hardness value is established, you are required to include this information in your first benchmark report submitted to EPA so that the Agency can make appropriate comparisons between your benchmark monitoring results and the corresponding benchmark. You must retain all report and monitoring data in accordance with Part 7.5 of the permit. The three method options for determining hardness are detailed in the following sections.

(1) Permittee Samples for Receiving Stream Hardness

This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If you elect to sample your receiving water(s) and submit samples for

analysis, hardness must be determined from the closest intermittent or perennial stream downstream of your point of discharge. The sample can be collected during either dry or wet weather. Collection of the sample during wet weather is more representative of conditions during stormwater discharges; however, collection of in-stream samples during wet weather events may be impracticable or present safety issues.

Hardness must be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

(2) Group Monitoring for Receiving Stream Hardness

You can be part of a group of permittees discharging to the same receiving waters and collect samples that are representative of the hardness values for all members of the group. In this scenario, hardness of the receiving water must be determined using 40 CFR Part 136 procedures and the results shared by group members. To use the same results, hardness measurements must be taken on a stream reach within a reasonable distance of the discharge points of each of the group members.

(3) Collection of Third-Party Hardness Data

You can submit receiving stream hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come from a local water utility, previously conducted stream reports, TMDLs, peer reviewed literature, other government publications, or data previously collected by the permittee. Data should be less than 10 years old.

Water quality data for many of the nation's surface waters are available on-line or by contacting EPA or a state environmental agency. EPA's data system STORET, short for STOrage and RETrieval, is a repository for receiving water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others. Similarly, state environmental agencies and the U.S. Geological Service (USGS) also have water quality data available that, in some instances, can be accessed online. "Legacy STORET" codes for hardness include: 259 hardness, carbonate; 260 hardness, noncarbonated; and 261 calcium + magnesium, while more recent, "Modern STORET" data codes include: 00900 hardness, 00901 carbonate hardness, and 00902 noncarbonate hardness; or the discrete measurements of calcium (00915) and magnesium (00925) can be used to calculate hardness. Hardness data historically has been reported as "carbonate," "noncarbonate," or "Ca + Mg." If these are unavailable, then individual results for calcium (Ca) and magnesium (Mg) may be used to calculate hardness using the following equation:

$$\text{mg/L } CaCO_3 = 2.497 \text{ (Ca mg/L)} + 4.118 \text{ (Mg mg/L)}$$

When interpreting the data for carbonate and non-carbonate hardness, note that total hardness is equivalent to the sum of carbonate and noncarbonate hardness if both forms are reported. If only carbonate hardness is reported, it is more than likely that noncarbonate hardness is absent and the total hardness is equivalent to the available carbonate hardness.

NPDES FORM 3510-11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Form Approved
OMB No. 2040-0211

NO EXPOSURE CERTIFICATION FOR EXCLUSION FROM NPDES STORMWATER PERMITTING

Submission of this No Exposure Certification constitutes notice that the entity identified in Section A does not require permit authorization for its stormwater discharges associated with industrial activity in the State identified in Section B under EPA's Stormwater Multi Sector General Permit due to the existence of a condition of no exposure.

A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in stormwater discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the no exposure exclusion. In addition, the exclusion from NPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the no exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity in Section A is certifying that a condition of no exposure exists at its facility or site, and is obligated to comply with the terms and conditions of 40 CFR 122.26(g).

ALL INFORMATION MUST BE PROVIDED ON THIS FORM.

Detailed instructions for completing this form and obtaining the no exposure exclusion are provided on pages 3 and 4.

A. Facility Operator Information

1. Name: 2. Phone: ___ - ___ - ____

3. Email:

4. Mailing Address: a. Street

b. City: c. State d. Zip Code: ____ – ____

B. Facility/Site Location Information

1. Facility Name:

2. a. Street Address:

b. City: c. County:

d. State: e. Zip Code: ____ – ____

3. Is the facility located on Indian Lands? ☐ YES ☐ NO

4. Is this a Federal facility? ☐ YES ☐ NO

5. a. Latitude: ° ' " b. Longitude: ° ' "

6. a. Was the facility or site previously covered under an NPDES stormwater permit? ☐ YES ☐ NO

b. If yes, enter NPDES permit number or tracking number:

7. SIC/Activity Codes: Primary: Secondary (if applicable):

8. Total size of site associated with industrial activity: acres

9. a. Have you paved or roofed over a formerly exposed, pervious area in order to qualify for the no exposure exclusion? ☐ YES ☐ NO

b. If yes, please indicate approximately how much area was paved or roofed over. Completing this question does not disqualify you for the no exposure exclusion. However, your permitting authority may use this information in considering whether stormwater discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

Less than one acre ☐ One to five acres ☐ More than five acres ☐

C. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either “Yes” or “No” in the appropriate box.) **If you answer “Yes” to any of these questions (1) through (11), you are <u>not</u> eligible for the no exposure exclusion.**

	Yes	No
1. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to stormwater	☐	☐
2. Materials or residuals on the ground or in stormwater inlets from spills/leaks	☐	☐
3. Materials or products from past industrial activity	☐	☐
4. Material handling equipment (except adequately maintained vehicles)	☐	☐
5. Materials or products during loading/unloading or transporting activities	☐	☐
6. Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to stormwater does not result in the discharge of pollutants)	☐	☐
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	☐	☐
8. Materials or products handled/stored on roads or railways owned or maintained by the discharger	☐	☐
9. Waste material (except waste in covered, non leaking containers [e.g., dumpsters])	☐	☐
10. Application or disposal of process wastewater (unless otherwise permitted)	☐	☐
11. Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater outflow	☐	☐

D. Certification Statement

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of “no exposure” and obtaining an exclusion from NPDES stormwater permitting.

I certify under penalty of law that there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 40 CFR 122.26(g)(2)).

I understand that I am obligated to submit a no exposure certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local municipal separate storm sewer system (MS4) into which the facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of stormwater from the facility.

Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name:

Print Title:

Signature: ______________________________

Date: / /

Mo Day Year

Email:

Instructions for the NO EXPOSURE CERTIFICATION for Exclusion from NPDES Stormwater Permitting

Who May File a No Exposure Certification

Federal law at 40 CFR Part 122.26 prohibits point source discharges of stormwater associated with industrial activity to waters of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is not required for discharges of stormwater associated with industrial activities identified at 40CFR 122.26(b)(14)(i)-(ix) and (xi) if the discharger can certify that a condition of "no exposure" exists at the industrial facility or site.

Stormwater discharges from construction activities identified in 40 CFR 122.26(b)(14)(x) and (b)(15) are not eligible for the no exposure exclusion.

Obtaining and Maintaining the No Exposure Exclusion

This form is used to certify that a condition of no exposure exists at the industrial facility or site described herein. This certification is only applicable in jurisdictions where EPA is the NPDES permitting authority and must be re-submitted at least once every five years.

The industrial facility operator must maintain a condition of no exposure at its facility or site in order for the no exposure exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the facility operator must obtain coverage under an NPDES stormwater permit immediately.

Where to File the No Exposure Certification Form

No Exposure Forms sent regular mail:

SW No Exposure Certification (4203M)
USEPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Forms sent overnight/express:

SW No Exposure Certification
US EPA East Building, Rm. 7420
1201 Constitution Avenue, NW
Washington, D.C. 20004
(202) 564-9545

Completing the Form

You must type or print, using uppercase letters, in appropriate areas only. Enter only one character per space (i.e., between the marks). Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words. One form must be completed for each facility or site for which you are seeking to certify a condition of no exposure. Additional guidance on completing this form can be accessed at EPA's website: www.epa.gov/npdes/stormwater. Please make sure you have addressed all applicable questions and have made a photocopy for your records before sending the completed form to the above address.

Section A. Facility Operator Information

1. Provide the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this certification. The name of the operator may or may not be the same as the name of the facility. The operator is the legal entity that controls the facility's operation, rather than the plant or site manager.
2. Provide the telephone number of the facility operator.
3. Provide the email address of the facility operator.
4. Provide the mailing address of the operator (P.O. Box numbers may be used). Include the city, state, and zip code. All correspondence will be sent to this address.

Section B. Facility/Site Location Information

1. Enter the official or legal name of the facility or site.
2. Enter the complete street address (if no street address exists, provide a geographic description [e.g., Intersection of Routes 9 and 55]), city, county, state, and zip code. Do not use a P.O. Box number.
3. Indicate whether the facility is located on Indian Lands.
4. Indicate whether the industrial facility is operated by a department or agency of the Federal Government (see also Section 313 of the Clean Water Act).
5. Enter the latitude and longitude of the approximate center of the facility or site in degrees/minutes/seconds. Latitude and longitude can be obtained from United States Geological Survey (USGS) quadrangle or topographic maps, by calling 1-(888) ASK-USGS, or by accessing the Census Bureau at: www.census.gov/cgi-bin/gazetteer

   Latitude and longitude for a facility in decimal form must be converted to degrees (°), minutes ('), and seconds (") for proper entry on the certification form. To convert decimal latitude or longitude to degrees/minutes/seconds, follow the steps in the following example.

   Example: Convert decimal latitude 45.1234567 to degrees (°), minutes ('), and seconds (").

   a) The numbers to the left of the decimal point are the degrees: 45°.

   b) To obtain minutes, multiply the first four numbers to the right of the decimal point by 0.006: 1234 x 0.006 = 7.404.

   c) The numbers to the left of the decimal point in the result obtained in (b) are the minutes: 7'.

   d) To obtain seconds, multiply the remaining three numbers to the right of the decimal from the result obtained in (b) by 0.06: 404 x 0.06 = 24.24. Since the numbers to the right of the decimal point are not used, the result is 24".

   e) The conversion for 45.1234567 = 45° 7' 24".
6. Indicate whether the facility was previously covered under an NPDES stormwater permit. If so, include the permit number or permit tracking number.
7. Enter the 4-digit SIC code which identifies the facility's primary activity and second 4-digit SIC code identifying the facility's secondary activity, if applicable. SIC codes can be obtained from the Standard Industrial Classification Manual, 1987.
8. Enter the total size of the site associated with industrial activity in acres. Acreage may be determined by dividing square footage by 43,560, as demonstrated in the following example.

   Example: Convert 54,450 ft^2 to acres

   Divide 54,450 ft^2 by 43,450 square feet per acre:
   54, 450 ft^2 ÷ 43,560 ft^2/acre = 1.25 acres.
9. Check "Yes" or "No" as appropriate to indicate whether you have paved or roofed over a formerly exposed, pervious area (i.e., lawn, meadow, dirt or gravel road/parking lot) in order to qualify for no exposure. If yes, also indicate approximately how much area was paved or roofed over and is now impervious area.

Section C. Exposure Checklist

Check "Yes" or "No" as appropriate to describe the exposure condition at your facility. If you answer "Yes" to **ANY** of the questions (1) through (11) in this section, a potential for exposure exists at your site and you cannot certify to a condition of no exposure. You must obtain (or already have) coverage under an NPDES stormwater permit. After obtaining permit coverage, you can institute modifications to eliminate the potential for a discharge of stormwater exposed to industrial activity, and then certify to a condition of no exposure.

Section D. Certification Statement

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means:

(i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or

(ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor, or

For a municipal, State, Federal, or other public facility: by either a principal executive or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this certification is estimated to average 1.0 hour per certification, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose to provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Director, OPPE Regulatory Information Division (2137), USEPA, 401 M Street, SW, Washington, D.C. 20460. Include the OMB control number of this form on any correspondence. Do not send the completed No Exposure Certification form to this address.

HUC: 13050003 Tularosa Valley

Carrizozo Lake — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_027	2	20.6.4.99	2011	2006	3

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Marginal Coldwater Aquatic Life	Not Assessed
Secondary Contact	Not Assessed
Warmwater Aquatic Life	Not Assessed
Wildlife Habitat	Not Assessed

Assessment Information:

Assessment Unit Comments: Marginal Coldwater and Warmwater Aquatic Life are existing uses.

Davies Tank — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_034	1280	20.6.4.99	2011		2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Dog Canyon (Tularosa Creek to headwaters) — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_20	5.85	20.6.4.801	2011	2006	5/5C

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Not Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Fully Supporting
Municipal Water Supply	Fully Supporting
Secondary Contact	Fully Supporting
Wildlife Habitat	Fully Supporting

Assessment Information:

Probable Causes of Impairment:	TMDL Schedule:
Temperature, water	

Probable Sources of Impairment:
Source Unknown

Assessment Unit Comments: Thermograph needed to confirm listing and for any necessary TMDL development.

Fresnal Canyon (La Luz Creek to headwaters) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_41	12.91	20.6.4.801	2011	2006	2

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Not Assessed
Municipal Water Supply	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Karr Canyon (Fresnal Canyon to headwaters) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_42	6.59	20.6.4.801	2011	2006	1

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Fully Supporting
Municipal Water Supply	Fully Supporting
Secondary Contact	Fully Supporting
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

La Luz Creek (Tularosa Creek to headwaters) — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_40	17.97	20.6.4.801	2011	2006	2

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Not Assessed
Municipal Water Supply	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Lake Lucero (North) — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_068	3420.7	20.6.4.98	2011	1998	2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments: Water is generally too saline for cattle, so livestock watering may not be an existing or attainable use.

Lake Lucero (South) — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_069	1988.27	20.6.4.98	2011	1998	2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments: Water is generally too saline for cattle, so livestock watering may not be an existing or attainable use.

Lake Stinky — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_070	75.28	20.6.4.99	2011		2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Malpais Springs — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_079	2.2	20.6.4.99	2011		2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Secondary Contact	Not Assessed
Warmwater Aquatic Life	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments: Habitat for White Sands pup fish. Warmwater Aquatic Life is an existing use.

Mound Springs — Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-9000.B_086	1	20.6.4.99	2011		2

Use Information:

Designated Use (s):	Attainment:
Aquatic Life	Not Assessed
Livestock Watering	Not Assessed
Secondary Contact	Not Assessed
Warmwater Aquatic Life	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments: Habitat for White Sands pup fish. Warmwater Aquatic Life is an existing use.

Nogal Creek (Tularosa Creek to Mescalero Apache bnd) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_10	4.2	20.6.4.801	2011	2006	2

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Not Assessed
Municipal Water Supply	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Salado Canyon (Fresnal Canyon to headwaters) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_43	2	20.6.4.801	2010	2006	2

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Fully Supporting
Municipal Water Supply	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

San Andres Canyon (Tularosa Creek to headwaters) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_30	7.8	20.6.4.801	2011	2006	2

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Not Assessed
Municipal Water Supply	Fully Supporting
Secondary Contact	Not Assessed
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Three Rivers (Perennial prt HWY 54 to USFS exc Mescalero) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2802_00	3.07	20.6.4.802	2011	2006	5/5A

Use Information:

Designated Use (s):	Attainment:
Domestic Water Supply	Fully Supporting
High Quality Aquatic Life	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Fully Supporting
Secondary Contact	Not Supporting
Wildlife Habitat	Fully Supporting

Assessment Information:

Probable Causes of Impairment:	TMDL Schedule:
Escherichia coli	

Probable Sources of Impairment:
Rangeland Grazing

Assessment Unit Comments:

Tularosa Creek (Old US 70 crossing to Mescalero Apache bnd) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_01	13.1	20.6.4.801	2011	2006	1

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Fully Supporting
Fish Culture	Fully Supporting
Industrial Water Supply	Fully Supporting
Irrigation	Fully Supporting
Livestock Watering	Fully Supporting
Municipal Water Supply	Fully Supporting
Secondary Contact	Fully Supporting
Wildlife Habitat	Fully Supporting

Assessment Information:

Assessment Unit Comments:

Tularosa Creek (perennial reaches blw old US 70 crossing) Tularosa Valley

Assessment Unit ID:	Size (mi or ac):	WQS reference:	Monitoring Schedule:	Cycle Last Assessed:	IR Category:
NM-2801_00	11.34	20.6.4.801	2011	2006	3

Use Information:

Designated Use (s):	Attainment:
Coldwater Aquatic Life	Not Assessed
Fish Culture	Not Assessed
Industrial Water Supply	Not Assessed
Irrigation	Not Assessed
Livestock Watering	Not Assessed
Municipal Water Supply	Not Assessed
Secondary Contact	Not Assessed
Wildlife Habitat	Not Assessed

Assessment Information:

Assessment Unit Comments:

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200400024	03-Nov-04	0850	0855	Shoppette parking lot	lubercant - transmission	1/2 quart	Leak in the transmission of active duty members old pick up truck	absorbant material	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200400025	05-Nov-04	1050		Runway 22 in middle of barriers	JP-8	2 gallons	F-4 drone was landing with problems and dumped fuel.	Spill dissipated, no clean up required	
CEV REP. NAME:	**Geraldine Arellano**								
200400026	29-Nov-04	18:20		744 First St, Bldg 33	Fuel Spill	4 gallons	An individual filling up and the automatic shut-off valve did not work.	Rescue used spill kit from the shoppette to clean up fuel spill.	
CEV REP. NAME:	**Geraldine Arellano**								
200400027	01-Dec-04		10:38	Tulie Gate	Thick tar/oily substance/unknown-5 gallon bucket	1/2 gallon	Unknown person left a full 5 gallon bucket of a thick tar/oily substance. About a 1/2 gallon was spilled on the ground.	5 gallon bucket of substance was put in a spill container along with gloves, absorbent and contaminated dirt. It was transported to the 90-day awaiti	
CEV REP. NAME:	**Geraldine Arellano**								
200400028	06-Dec-04	1617hrs	1655hrs	West side of Hanger 9 spot 35	JP-8	15 Gals	Unknown	Cleaned up with spill pads	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200400029	17-Dec-04	1045 hrs	1115	Hanger 10 spot 38	JP-8	4 gals	Aircraft was running and about to taxi out when it started leaking fuel.	spill pads	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500001	05-Jan-05	UNKNOWN	1500	Well Fargo Bldg 781	sewage	Unknown	Sanitary sewer pipe break estimated 8" pipe.	No clean-up is recommended, wetlands and rainfall runoff dilution will serve to limit impacts to the environment.	
CEV REP. NAME:	**Lori J. Curnp**								
200500002	07-Jan-05	530	630	Building 33	Unleaded Fuel	6-10 gallons	Nozzle on fuel pump didn't release.	Cleaned up with speedy dry and abs pads by Shoppette employees.	
CEV REP. NAME:	**Geraldine Arellano**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200500003	07-Jan-05	900	1430	Bldg 316	Antifreeze	2 gallons	Leaking pump outside of the condensing unit area	Cleaned by user with absorbent pads.	
CEV REP. NAME:	**Geraldine Arellano**								
200500004	10-Jan-05	1000	1443	bldg 578	JP-8	4-5 gallons	A broken fuel seal on the aircraft caused the JP-8 to overflow shortly after the aircraft had been fueled.	Immediately cleaned up with absorbent pads which were placed in a trash bag	
CEV REP. NAME:	**Geraldine Arellano**								
200500005	21-Jan-05	1220	1235	Bldg 21816 Hang 2 Spot 7	JP-8	40 gals	Spill during replacing trasfer vavle on aircraft	Contained spill and pumped into bowser. Used spill pads to clean.	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500006	24-Jan-05	2120	2138	Spot 6 Hanger 2	JP-8	6 Gals	Vapor lock during refuel	Cleaned with spill pads	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500007	25-Jan-05	0830	0855	Filter separaters in POL yard	JP-8	5 gals	Inspection on water drain on F/S	Clean with pads and enzymes for the ground	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500008	28-Feb-05	2000 hrs	0800 hrs 1 Mar	Bare Base Comp Area	Oil, Antifreeze, Hydrolic Fluid	13 Gals Oil, 25 Gals Antifreeze, 1 gal Hyro fluid	Engine break	Contained area and used absorbants and litter.	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500009	12-Apr-05	1400	1410	Bldg 21812 Han 4 Spot 16	JP-8	12 Gals	1/2 " valve busted from the fuel meter on the deactivated fueling system	Spill pads for the hanger floor. Drip pan reclaimed 5 gals. 2 gals into containment trench	
CEV REP. NAME:	**Lt. Daryl Brezina**								
200500010	15-Apr-05			Bulding 21819 Spot 25	JP - 8	30	leak on the F-117	Pads soaked up fuel, 2 gallons went down drain to the Oil/Water Sep	
CEV REP. NAME:	**Lt. Daryl Brezina**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200500011	05-Jul-05	1847		Hanger 11 GAF	JP-8	~50 gallons	Left fuel tank on, Toronado should shut off when full, it failed and fuel started spilling out of fuel point.	GAF used mats and kitty litter type material to soak it up.	
CEV REP. NAME:	**Geraldine Arellano**								
200500012	07-Jul-05	1300		bldg 1020	JP-8	5-10 gallons	Fueling of an F-16.	Cleaned by user.	
CEV REP. NAME:	**Geraldine Arellano**								
200500013	25-Jul-05	12:00	12:40	Blds 283 German shipping and receiving	Diesel Fuel	70 liters	Diesel fuel compressor was not strapped down on truck.	Cleaned by user	
CEV REP. NAME:	**Geraldine Arellano**								
200500014	21-Jul-05	13:30		perimeter road before test group entrance	JP-8	20 gallons	Drive shefr on refueler tank broke and hit the fuel system pipe.	Cleaned by user.	
CEV REP. NAME:	**Geraldine Arellano**								
200500015	29-Jul-05	10:21	10:21	NRTF	hydraulic fluid	30 gallons	leak on Grove 90-ton crane	Cleaned by user with absorbents and will use enzymes on the ground	
CEV REP. NAME:	**Geraldine Arellano**								
200500016	10-Aug-05	11:25	11:30	Spot 42	JP-8	15 gallons	Valve didn't go off during aircraft refueling.	Cleaned by user with absorbent pads.	
CEV REP. NAME:	**Geraldine Arellano**								
200500017	15-Aug-05	14:20	14:20	Spot 9 German Hanger	JP-8	2 gallons	External fuel tank leaking on Toronado.	Cleaned by user.	
CEV REP. NAME:	**Geraldine Arellano**								
200500018	16-Aug-05	07:15	07:15	Spot 35 Stealth Hanger	JP-8	5-10 gallons	Fuel release manifold was stuck and became unstuck on aircraft pressurization	Cleaned by user with absorbent pads.	
CEV REP. NAME:	**Geraldine Arellano**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200500019	22-Aug-05	11:20	11:20	Bldg 823	Mercury Thermometer	2 grams	Bumped out of equipment storage for air conditioning	Cleaned by bio, then taken to 90-day. Shop given mercury spill kit by Lori.	
CEV REP. NAME:	**Geraldine Arellano**								
200500020	19-Aug-05	8:22	8:22	Spot 35, bldg 21815, F-117 Hanger 9	JP-8	30 gallons	Bad valve on aircraft	Cleaned by user with spill pads	
CEV REP. NAME:	**Geraldine Arellano**								
200500021	27-Sep-05	11:00	11:00	bldg 287	diesel and water	5-10 gallons	Fire suppression pump leaking inside of building. Fittings were leaking.	Cleaned by user	SC05-9997S
CEV REP. NAME:	**Geraldine Arellano**								
200500022	19-Oct-05	20:16	20:16	on taxi way B	JP-8	10 gallons	Hit a dump valve	Cleaned by user	
CEV REP. NAME:	**Geraldine Arellano**								
200500023	31-Oct-05	2:00	2:00	Spot 37	JP-8	15 gallons	Fuel valve maintenance malfunction	Cleaned by user	
CEV REP. NAME:	**Geraldine Arellano**								
200500024	26-Oct-05	3:00	3:00	hanger 2	JP-8	15 gallons	Aircraft Malfunction	Cleaned by user.	
CEV REP. NAME:	**Geraldine Arellano**								
200500025	25-Oct-05	2:00	2:00	hanger 2	JP-8	15 gallons	Aircraft Maintenance	Cleaned by user.	
CEV REP. NAME:	**Geraldine Arellano**								
200500026	01-Nov-05	10:30	11:00	Runway 0422	JP-8	20 gallons	F-4 drone catches the cable. The aircraft had a bad vent that released fuel.	Cleaned by CEV with absorbent material.	SC05-9997U
CEV REP. NAME:	**Geraldine Arellano**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200500027	15-Nov-05	13:10	13:10	Structures-Parking lot near electric shop	Latex paint	1 gallon	Paint was being transported to the paint shed. When truck bin was opened paint fell out.	Cleaned up with absorbent pads, kitty litter and put in a plastic bag. Paint will no longer be transported in shop truck, personnel will hand carry.	
CEV REP. NAME:	**Geraldine Arellano**								
200500028	23-Nov-05	17:30	17:30	Structures-Bldg 296 - Spot 24	JP-8	6377 gallons	Pantographs gasket degraded causing fuel to spill.	Fire Dept used water to wash down 60% of the fuel into containment troughs. Containment pond and oil-water sep contained 40%. Residual cleaned up	
CEV REP. NAME:	**Geraldine Arellano**								
200600001	03-Jan-06	07:30	07:30	90-day	Silver water from NDI lab	20 gallons	3 quarter size holes in the bottom of the drum	Cleaned up with absorbent pads and kittly litter. Leaking drum was put in an overpack drum.	
CEV REP. NAME:	**Geraldine Arellano**								
200600002	06-Jan-06	18:07	18:07	Spot 3	JP-8	10 gallons	Fuel release due to a faulty valve.	Aircraft was de-fueled. Residual fuel was captured in a bucket with absorbent pads. Spill was cleaned up with absorbents, put in a plastic bag.	
CEV REP. NAME:	**Geraldine Arellano**								
200600003	18-Jan-06	12:30	12:30	GAF Hanger 21297	AFFF	2000 gallons	German Air Force started up Toronado aircraft and AFFF was activated	AFFF was squeegeed into drains leading to the holding pond. Also an enzyme was applied to bread down the AFFF foam.	
CEV REP. NAME:	**Geraldine Arellano**								
200600004	20-Jan-06	13:00	13:00	Bldg 297	Silver water	30 gallons	Water overspill from wash tank into the fixer tank which contains silver also on the floor.	Cleaned up with paper towels and electric pump. Shop will look at how the plumbing is configured.	
CEV REP. NAME:	**Geraldine Arellano**								
200600005	01-Feb-06	9:10	9:10	F117 from taxiway to to runway 07/25 Bravo taxiway	JP-8	147 galllons	Pending	Cleaned by CEV with absorbent pads and clay absorbent at runway 07/25. Aircraft was defueled by POL. Aircraft holds 1800 pounds of fuel.	
CEV REP. NAME:	**Geraldine Arellano**								
200600006	09-Feb-06	14:30	14:30	Bldg 293	Diesel	50-60 gallons	Contractor punctured underground storage tank.	Liquid fueld pumped out fuel into a bowser	
CEV REP. NAME:	**Geraldine Arellano**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200600007	10-Feb-06	03:00	03:00	Hangerette/Flightline Spot 23	JP-8	30-40 gallon	Coupling release from fuel line.	Spill kit was put under aircraft and fuel went into spill kit absorbent material.	
CEV REP. NAME:	**Geraldine Arellano**								
200600008	14-Feb-06	21:18	21:18	Bldg 21295 German Hanger Spot 17	JP-8	5 gallons	Refueling aircraft leaked.	Cleaned up with speedy dry.	
CEV REP. NAME:	**Geraldine Arellano**								
200600009	23-Feb-06	08:00	08:00	Bldg 895	Diesel	10 gallons	Fuel line dry rotted and broke.	Absorbent pads were used to soak up fuel. Some reached a small amount of soil, enzyme was used for soil remediation.	
CEV REP. NAME:	**Geraldine Arellano**								
200600010	03-Mar-06	11:00	11:00	bldg 594	Transmission fluid	1 qt	Car was leaking transmission fluid.	Placed kitty litter on spill and swept it into the spill and put in plastic container. Double bagged and disposed of as solid waste.	
CEV REP. NAME:	**Geraldine Arellano**								
200600011	04-Mar-06	15:30	15:30	MUNS areas near bldg 1222	hydraulic fluid	3 gal	hydraulic line leaking, blew open during use of forklift	spill kit pads used and dirt around spill dug up.	
CEV REP. NAME:	**Geraldine Arellano**								
200600012	09-Mar-06	2:30		Bldg 310	Transmission fluid	2.5 gallons	Due to accident transmission fluid was released.	Transmission fluid cleaned up with 20lbs of speedy dry.	
CEV REP. NAME:	**Geraldine Arellano**								
200600013	03-Apr-06	9:30	9:30	Runway 22	Hydraulic Fluid	1 gallon	Toronado in flight emergency.	Cleaned by GAF	
CEV REP. NAME:	**Geraldine Arellano**								
200600014	25-Apr-06	0800	0800	Building 294 Outside Paint Booth	Part A of Two Component Primer	1 Liter	Personel spilled accidentally	Cleaned by user.	
CEV REP. NAME:	**Patrick Jenkins**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200600015	24-Apr-06	0600 - 0700	0730	Southeast Corner 898	JP8	5 Gallons	Accidental Fuel Spill	Enzymes sprayed on rock/dirt	
CEV REP. NAME:	**Patrick Jenkins**								
200600016	07-Apr-06	0800 - 1000	1100	Parking lot south of 827	Tack Oil	4 - 5 Gallons	Leak From Truck	Absorbent Applied to Spill	
CEV REP. NAME:	**Patrick Jenkins**								
200600017	18-May-06	1430	1430	7000' marker Runway 22	Hydraulic Fluid	1.5 Gallons	Aircraft malfunction	Absorbent applied	
CEV REP. NAME:	**Patrick Jenkins**								
200600018	22-May-06	1434	1434	Bldg 288, Tanks 26/27	JP-8	300 Gallons	Flange on maintenance draw stub failed	Tank was isolated to prevent further leakage. Draw stub was then replaced and all fuel was recovered.	
CEV REP. NAME:	**Patrick Jenkins**								
200600019	22-May-06	1310	1318	Bldg 310, Receiving	Diesel	7 Gallons	Generator fuel sump valve broke off.	Valve filled with plug by CEF. Absorbing pads used with speedy dry.	
CEV REP. NAME:	**Patrick Jenkins**								
200600020	22-May-06		1300 23-May-06	Bldg 21808 Spot 22/23	AFFF	250 Gallons	Seal busted on AFFF storage bladder causing leak for a few days until discovered	1 drum pumped full of foam. Rest of foam diverted to industrial waste drain leading to AFFF holding lagoon.	
CEV REP. NAME:	**Patrick Jenkins**								
200600021	05-Jun-06		0912	Runway 22	Hydraulic Fluid	0.5 - 1 gal	Hydraulic system leak on GAF aircraft	Cleaned with absorbent pads by GAF personnel	
CEV REP. NAME:	**Patrick Jenkins**								
200600022	05-Jun-06		0909	Runway 25	Tar-like Oil Based Substance	0.25 Gal	Unknown	Oil absorbent applied by CEV, collected by Airfield Maintenance sweeper truck	
CEV REP. NAME:	**Patrick Jenkins**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200600023	13-Jun-06	Unknown, night of 13th	1015 15 June 06	Bldg 1243	Lubricating Oil	4 - 5 Gallons	Seal Failure on Equipment (MC7 Air compressor, Tag #LP11)	OilDry applied, Swept up, Disposed of. Equipment removed to 8th AGE shop for repair.	
CEV REP. NAME:	**Patrick Jenkins**								
200600024	21-Jun-06	1030	1215	Runway 22	JP-8	0.75 Gallons	Aircraft Fuel Spill	Absorbent applied, swept by Airfield Maintenance Sweeper Truck	
CEV REP. NAME:	**Patrick Jenkins**								
200600025	22-Jun-06	0941	0945	Runway 16	JP-8	0.25 Gallons	Equipment Leak/Inflight Emergency	Absorbent applied, swept up by Airfield Maintenance sweeper truck	
CEV REP. NAME:	**Patrick Jenkins**								
200600026	03-Aug-06	1431	1431	Runway 22, 6500'	Hydraulic Fluid	2 Gal	Hydraulic Fluid released by F-117A, 805	Pads and Speedy Dry was used to soak up all available liquid.	
CEV REP. NAME:	**Herman, Lt Jonathan**								
200600027	28-Jul-06	1100	1100	Bldg 314	Sulfuric Acid	2 Liters	Pin sized hole in plastic drum of acid causing leak	Hazmat spill pads used to clean spill, leaking drum put into secondary containment and was going to be reconstituted.	SC06-9997F
CEV REP. NAME:	**Herman, Lt. Jonatha**								
200600028	07-Aug-06	1246	1310	Taxiway L	Hydraulic Fluid	0.5 Gallons	Hydraulic System Failure on F-16	Spill pads used to soak up all hydraulic fluid possible.	
CEV REP. NAME:	**Herman, Lt. Johnath**								
200600029	11-Sep-06	1515	1515	Runway 22-04 8000ft.	Hydraulic Fluid	1 Gal	F-117 actuator nose gear leak	Cleaned with absorbent pads	
CEV REP. NAME:	**Sanborn, Lt Maxwell**								
200600030	13-Sep-06	0827	0842	Runway 22; 1000ft remaining	JP8	0.25 Gal	F-117 Fuel leak on landing	Cleaned with absorbent pads	
CEV REP. NAME:	**Mr. Patrick Jenkins**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200600031	19-Sep-06	1821	1821	Bldg 285 spot 2	JP-8	5 gallons	Overpressured valve	Used dry sweep around the valve - checked to make sure no JP-8 drainned into water treatment system.	
CEV REP. NAME:	**2Lt Ben Simon**								
200600032	21-Sep-06	0715	0730	Hanger 5	JP8	5 gallons	F-117 fuel line leak	leak fixed, remaining leaked fuel contained, spilled fuiel absorbed with snakes and pads. Absorbent materials taken to HAZMAT storage.	
CEV REP. NAME:	**Sanborn, Lt Maxwell**								
200600033	13-Oct-06	1730	1747	GAF Hangar	JP 8	Less than 1 gal	Slow leaking fuel valve	Spilled JP 8 was cleaned up with absorbant pads. A drip pan was placed under the leaking valve. Valve to be repaired 16-Oct-06	
CEV REP. NAME:	**Sanborn, Maxwell, 1**								
200600034	25-Oct-06	1300	1334	Taxiway Echo/Foxtrot	JP8	2 - 2.5 Gal	Aircraft fuel leak during taxiing	Cleaned with Absorbant pads.	
CEV REP. NAME:	**Patrick Jenkins**								
200600035	01-Nov-06	1200	1220	GAF Live Load	Hydraulic Fluid	5 Gallons	Ruptured Hydraulic Line On GAF AGE Equipment	Line was repaired on spot. Absorbent pads were used to soak up what fluid existed.	
CEV REP. NAME:	**Patrick Jenkins**								
200600036	14-Dec-06	0820	0825	North Ramp	Hydraulic fluid	1-2 gal (9ft diameter)	aircraft blew hydraulic line whle taxiing.	Kitty litter applied promptly. Most of material absorbed into litter.	
CEV REP. NAME:	**Lt Maxwell Sanborn**								
200600037	15-Dec-06	1000	1015	street between 221 & 783	Battery Acid	1/2 Gallons	Batteries fell from back of truck.	Absobent applied, Batteries and absorbent packaged and taken to 90 Day. Area sprayed by Fire Department.	SC06-9997G
CEV REP. NAME:	**Mr. Patrick Jenkins**								
200700001	04-Jan-07	10:55	10:57	Taxiway Delta,Arm/De Arm Delta/Runway 16	JP-8	10-15 Gallons	Leak from Right fuel pod on GAF Tornado	Airfield Ops and Environmental Personnel absorbed what material could be taken up with absorbent pads. GAF did not show up to help with cleanup	
CEV REP. NAME:	**Mr. Patrick Jenkins**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200700002	23-Jan-07	1000	1023	inside hangar 578	JP-8	5 gallons	Fuel line was inadvertantly dislodged during routine maintenance.	Contained and remediated with absorbant pads. Pads were double bagged and thrown in trash.	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700003	05-Feb-07	1405	1410	Arm De-arm pad D	Hydraullic Fluid	approx 5 gal (10' x 20' puddle)	mechanical failure	spilled material was soaked up with absorbent pads and kitty litter. Pads were bagged and thrown in trash, kitty litter was swept up by sweeper.	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700005	07-Feb-07	0920	0925	runway 22, 9000 ft	JP 8	less than one gallon	small fuel spill from aircraft	absorbed with pads	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700006	21-Feb-07	1800	1823	Runway 34	hydraulic fluid	approx. 2 quarts (2ftx4ft puddle)	a visiting F-18 a/c took a barrier on rwy 34 causing a small leak	hydraulic fluid was soaked up with absorbant pads. Pads were doubled bagged and thrown in trash.	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700007	14-Feb-07	0900	28 feb 07 0800	Track station 8,500 East Stapp Rd	Hydraulic Fluid	15 gal	Hydraulic hose on 60 ton RT760 crane burst.	Speedy dry on spill and soil removed and put in 55 gal drum for turn in.	
CEV REP. NAME:	**Mike Porto**								
200700008	28-Feb-07	1400	1405	generator at bldg 895	diesel	10-15 gal	Return line broke	About 5 gallons were recovered using absorbant pads. Pads were double bagged and thrown in trash. Remaining fuel spilled into the soil.	
CEV REP. NAME:	**Lt Maxwell Sanborn**								
200700009	21-Mar-07	Unknown	1600	Near Building 21819 (Hangar 7 spot 25)	JP-8	100 gallons	Failure of pipeline expansion coupling northeast of Building 21819.	Dammed up the ends of containment treanch to prevent migration of JP-8. Used a pump to collect free liquid. No JP-8 was released to the	
CEV REP. NAME:	**Mr. Michael A Porto**								
200700010	28-Mar-07	0730	0730	Flightline between bldg 297 and 300	JP 8	approx 25 gallon	T-38 on a flatbed vented ~25 gal.	5 gal JP8 was recovered in pans, rest was absorbed w/ pads & litter. 2 garbage bags of pads were disposed as solid waste. 1 bag was sent to 90 day.	
CEV REP. NAME:	**Lt Max Sanborn**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200700011	30-Mar-07	1600	1615	hangar 5 spot 20	JP 8	10-15 gallons	Fuel cell in a/c 828 became clogged and fuel vented out of aft.	Absorbant pads & snakes used to contain spill. Pads were placed in drains to prevent fuel from entering storm water system. Fuel recovered in	
CEV REP. NAME:	**Patrick Jenkins**								
200700012	02-Apr-07	unknown	1400	on Bong street near bldg 871	unknown solvent	half gallon	A small (10 gal.) drum was found in middle of street with liquid leaking from it.	Spilled liquid was cleaned up w/ pads. Drum was found nearby nearly empty.	
CEV REP. NAME:	**Lt Max Sanborn**								
200700013	13-Apr-07	1130	1145	Intersection of First and Delaware	automobile colant	2 gallons	Car accident caused a vehicle to leak coolant.	Coolant was cleaned up with absorbant pads and snakes. Pads were double bagged and thrown in trash.	
CEV REP. NAME:	**Lt Max Sanborn**								
200700014	01-May-07	1230	1230	Runway 04, 6000' remaining	Barrier Grease, Hydraulic Fluid	1 Quart Barrier Grease, 4oz. Hydraulic Fluid	Barrier Testing on Runway04, 6000' remaining mark.	Absorbed with pads.	
CEV REP. NAME:	**Mr. Patrick Jenkins**								
200700015	09-May-07	1200	1220	Main A/C Ramp - Hotel 3	JP8	15 Gallons	Problem with fuel/de-fuel valve	Military cleaned area	
CEV REP. NAME:	**Mr. Benito Avalos**								
200700016	19-Jun-07	1030	1035	Fire station 1	AFFF	100 gal	spill	flushed down drain	
CEV REP. NAME:	**Lt Max Sanborn**								
200700017	26-Jun-07	unknown	0652	bldg 901	diesel	15 gal	Fuel drain valve on MEP 6 generator broke off sometime overnight.	Spill was contained using pads.	
CEV REP. NAME:	**Lt Maxwell Sanborn**								
200700018	28-Jun-07	0900	0905	AAFES Fuel Tanks	Gasoline	0.5 Gal	Tanker Operator opened wrong port on truck	Soaked up free fuel with oil absorbent pads	
CEV REP. NAME:	**Mr. Patrick Jenkins**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200700019	06-Jul-07	1225	1230	AAFES Service Station	Gasoline	1-2 gallons	Unknown. An AAFES customer reported to AAFES management that there was a large puddle near pump 7. Cause of spill is most likely a customer overfill	Gasoline was absorbed using absorbant clay powder. Powder and gas were taken to 90 day.	
CEV REP. NAME:	**Lt Max Sanborn**								
200700020	17-Jul-07	approx. 0900	1144	near bldg. 898	hydraulic fluid	5 gal	AGE unit blew a seal.	Spilled liquid was cleaned up using absorbant pads.	
CEV REP. NAME:	**Mr. Ken Nelson**								
200700021	25-Jul-07	1300	1310	parking lot of bldg 520	hydraulic fluid	less than one gal	Equipment malfunction	Clay absorbant was used to clean spill. Absorbant taken off based.	
CEV REP. NAME:	**Kusmak**								
200700022	26-Jul-07	1030	1050	Test Track North End	Hydraulic Oil	30 gal (EST)	Hyraulic Line Malfunction	Free Liquid absorbed on pads and removed contaminated soil.	
CEV REP. NAME:	**Kusmak**								
200700023	27-Jul-07	0900	0930	Runway 22	hydraulic fluid	aprrox 3 gal	F4 leaked after landing.	Spilled material soaked with pads. Soiled pads bagged and thrown in trash.	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700024	02-Aug-07	0745	0800	GAF Hot Brake Pad/ spot I 7	hydraulic fluid	less than 1 gal	Tornado leaked.	Spilled material removed with pads. Pads were bagged and thrown out.	
CEV REP. NAME:	**1st Lt Max Sanborn**								
200700025	01-Aug-07	unknown	1330 2-aug-07	Golf Course Parking Lot	most likely motor oil	approx. 3 gal	Cause unknown. Most likely from an auto that had a massive leak.	By the time the spill was reported & spill team arrived on scene, most of the oil had washed away from previous day's rainstorm & soaked into asphalt	
CEV REP. NAME:	**1st Lt Maxwell Sanb**								
200700026	24-Aug-07	0600	0645	Bldg 273	Transmission Fluid	6 quarts	Van leaking transmission fluid. Van has been parked at this spot across from dorms for some time. Called Pass & ID to find owner to alert them of leak	Pads put under van by Fire Dept and later by CEV. Double bagged and thrown away	
CEV REP. NAME:	**Mr. Patrick Jenkins**								

Spill Log

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200700027	24-Aug-07	1030	1030	CE Compound South Entrance	Latex Paint	50 Gal	Unfastened container fell off of delivery truck	Let paint dry to peel off.	
CEV REP. NAME:	**Ken Nelson**								
200700028	24-Aug-07	1100	1110	Runway 34, 7000 ft mark	Hydraulic Fluid	3 Gal	Aircraft (F-117) vented fluid after landing	Absorbent applied and swept up	
CEV REP. NAME:	**Ken Nelson**								
200700029	06-Sep-07	0900	0920	Balloon Launch Pad	Coolant	2 Quarts	Vehicle Line Break	Absorbed and disposed of	
CEV REP. NAME:	**Mr. Patrick Jenkins**								
200700030	26-Oct-07	0900	0910	Taxiway Alpha	5606 Hydraulic Fluid	1 Qt	Breakline overheated, small fire, leakage. Experimental Aircraft - XPRIZE	Absorbed, double bagged and thrown away	
CEV REP. NAME:	**Nelson, Ken**								
200700031	26-Oct-07	1330	1345	Hanger 1, Spot 3	JP-8	10 - 20 Gallons	Leakage on Dash 60 AGE	Absorbed, double bagged, thrown away	
CEV REP. NAME:	**Jenkins, Patrick**								
200700032	31-Oct-07	1430	1430	Bldg 892	Hydraulic Fluid	15 Gal	Hydraulic line blew on Aircraft Tug	absorbed with aborbent material. Double bagged and disposed of.	
CEV REP. NAME:	**Nelson, Ken**								
200700033	02-Nov-07	0800	0820	Hanger 10 Spot 38	JP8	20 Gal	Power Unit Leak	Absorbed, double bagged, disposed.	
CEV REP. NAME:	**Nelson, Ken**								
200700034	02-Nov-07	1306	1300	Outside Bldg. 800	JP-8	30 Gallons	Transfer Pump Seal Failure	Absorbed JP-8 with pads and covered remaining liquid with oil dry. Oil dry will be swept up. All spill materials will be disposed of properly	
CEV REP. NAME:	**Kusmak, Adam**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
200700035	07-Nov-07	1522	1526	Runway 22	Hydralic Fluid	> 3 gallons	German Tornado experienced an inflight hydralic failure. Released > 3 gallons of hydrolic fluid apon approach.	absorbed hydralic fluid with pads and covered remaining liquid with oil dry. Oil dry will be swept up. All spill response materials will be disposed	
CEV REP. NAME:	**Kusmak, Adam**								
200700036	01-Dec-07	1230	1230	shopette	gasoline	less than 1 gallon	customer over filled vehicle tank.	personel cleaned material with loose absorbant and pads.	
CEV REP. NAME:	**Kusmak, Adam**								
200800001	15-Jan-08	1122	1120	Runway 16	JP-8	15 gallons	GAF Tornado In Flight Emergency Fuel leak. 15 gallons JP-8 was released when air craft landed.	Material picked up with pads and absorbant clay, material was disposed of properly	
CEV REP. NAME:	**Kusmak, Adam**								
200800002	22-Jan-08	1000	1020	POL yard	JP-8	7-8 gallons	WSMR contractor over filled fuel truck, causing approx 7 gallons of JP-8 to enter dyke, causing small amounts of splash over.	Dyke was cleaned with absorbant pads, oil eater enzymes sprayed on splash over area. Clean up material was disposed of appropriately.	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	06-Feb-08	1145	1200	Runway 22	Hydraulic Fluid	2 Gallons	F-4 leaked hydraulic fluid during the landing	Put kittylitter on spill for 15 minutes Clean up material was disposed of appropriately	
CEV REP. NAME:	**2Lt. Amanda E. Huff**								
2.008E+09	07-Feb-08	1045	1100	Main Taxi Way	Hydraulic Fluid	5-6 Gallons	Before T-38 took off it started to leak hydraulic fluid on the main taxi way. Left a trail of hydraulic splatter for 150 ft	Put kitty litter on spill and clean up with approriate measures	
CEV REP. NAME:	**2Lt. Amanda E. Huff**								
2.008E+09	26-Feb-08	1330		BLDG 1080	JP-8	5 gallons	Aircraft fueling.	The release was contained and cleaned up using absorbent rags/pads. Saturated rags/pads were containerized and taken to the 90-Day fa[illegible]	
CEV REP. NAME:	**Adam Kusmak**								
2.008E+09	27-Mar-08	1523	1523	Bravo 3 Main Ramp	JP-8	1.5gallons	F-18 Aircraft fuel leak	Fuel was picked up with absorbant material, and disposed of as solid waste	
CEV REP. NAME:	**Kusmak, Adam**								

Spill Log

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2.008E+09	01-Apr-08	0733	0733	Building 288	JP-8	5gallons	Loose fitting on delivery pipe station. Fuel was contained in a concreate barrier. No fuel reached the soil	Fuel was picked up with absorbant pads and material. Disposed of as solid waste.	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	23-Apr-08	0800	0810	Runway 22	JP8	1 Gal	F-4 leak on landing	Absorbent applied and picked up with sweeper truck	
CEV REP. NAME:	**Mr. Patrick Jenkins**								
2.008E+09	02-Jul-08	1600	1615	Taxiway 21A	hydraulic Fluid	2 gals	A/C Leak	Soaked up with pads disposed of as Universal Waste	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	02-Jul-08	1600	1615	Taxiway A 21A	Hydraulic Fluid	2 gal	GAF A/C leak	Fluid soaked with pads disposed of as universal waste	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	02-Jul-08	1600	1615	EOR B	Hydraulic Fluid	2 gal	GAF A/C reported hydraulic fluid leak	Pads used to soak remaining fluid, disposed of as Universal waste	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	02-Jul-08	1600	1615	EOR B	Hydraulic Fluid	2 gal	GAF A/C leaked hydraulic fluid	Pads used to soak up remaining fluid, disposed of as Universal Waste	
CEV REP. NAME:	**Kusmak, Adam**								
2.008E+09	29-Jul-08	1231	0700	Bld 198	Hydraulic Fluid	2 gal	Hose connection leak on semi truck	FD and Truck owner absorb fluid spill with absorbant pads. Spill was contained to asphalt parking lot. Absorbant material was taken with the truck.	
CEV REP. NAME:	**Adam Kusmak.**								
2.008E+09	17-Sep-08	1330	1353	bldg 953	Diesel fuel	7.5 gallons	Individual cleaning fuel hoses	absorbent pads and vermiculite used to absorb material. Clean up material disposed as general waste	
CEV REP. NAME:	**Adam Kusmak**								

Spill Log

Log Number	Date of Spill	Time of Spill	Time of Notificatio	Spill Location	Material Spilled	Amount Spilled	Cause of Spill	Corrective Action	Waste Profile
2.008E+09	18-Sep-08	1400	1410	EOR B	Oil Type(~Hydraulic) Fluid	.5 gallons	Unkown A/C on departure	Material absorbed with absorbent pads. Disposed of as general waste, double bagged.	
CEV REP. NAME:	**Adam Kusmak**								
2.008E+09	24-Sep-08	1200	1230	Bear Base (South of Bldg 953)	Dielectric Fluid (Transformer Oil)	100 gal	Improper removal of transformer.`	Contaminated soil was excavated and drumed up in 55 gal metal drums. Drums taken to 90-Day facility. Awaiting waste characterization for disposal	
CEV REP. NAME:	**Benito Avalos**								
2.008E+09	04-Dec-08	0830	0835	Kelly Road South	Grease, Anit Freeze	less than 2 gallons	Concrete Truck Accident, roll over. Mesa Verde Truck	Material was cleaned and removed by Mesa Verde.	
CEV REP. NAME:	**Kusmak, Adam**								

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF MAIN FLIGHT LINE FACILITIES
German Air Force

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums stored within secondary containment?			
Containers properly closed?			
Containers properly labeled?			
Painting conducted inside a paint booth?			
Drains, sumps, and OWS clean and flowing freely?			
Evidence of cleanup by dry techniques?			
No evidence of equipment being cleaned outdoors?			
• No detergents used if equipment cleanup is outdoors?			
• If cleaned outdoors, is runoff directed to sanitary sewer?			
Drip pans used when hoses and fittings are disassembled?			
Drip pans used under leaking aircraft?			
Overwing fueling conducted only when underwing fueling is not feasible?			
Drop inlets and other storm water collection structures free of debris?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF HUSH HOUSE
German Air Force

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums stored within secondary containment?			
Drums and other containers properly closed?			
Drip pans used during repair activities?			
Self-contained solvent stations used?			
Evidence of cleanup by dry techniques?			
Drains, sumps, and OWS clean and flowing freely?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF DRAINAGE AREA 2 SOUTH EAST FACILITIES
(COPY THIS SHEET AS NECESSARY)
German Air Force

RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt or concrete?			
Loading and unloading in designated areas?			
Drip pans used under leaking vehicles or equipment?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
Metal drums stored outside off of ground or located in secondary containment area?			
All containers clearly labeled with contents?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Hazardous waste storage area bermed and covered?			
Spent batteries segregated and stored indoors? If stored outside, are they covered and elevated off the ground and in secondary containment?			
Drains, OWS, and sand trap clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Hazardous waste storage area bermed and covered?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF FLIGHT LINE

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums stored within secondary containment?			
Containers properly closed?			
Containers properly labeled?			
Painting conducted inside a paint booth?			
Drains, sumps, and OWS clean and flowing freely?			
Evidence of cleanup by dry techniques?			
No evidence of equipment being cleaned outdoors?			
• No detergents used if equipment cleanup is outdoors?			
• If cleaned outdoors, is runoff directed to sanitary sewer?			
Drip pans used when hoses and fittings are disassembled?			
Drip pans used under leaking aircraft?			
Overwing fueling conducted only when underwing fueling is not feasible?			
Drop inlets and other storm water collection structures free of debris?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF AUTO CRAFT SHOP

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums stored within secondary containment?			
Drums and other containers properly closed?			
Drip pans used during outside repair activities?			
• Drip pans emptied after use?			
• Oil filters drained prior to disposal?			
Painting conducted inside a paint booth?			
Drains, sumps and OWS clean and flowing freely?			
Metal scrap covered and not in direct contact with ground surface or storm water?			
Washwaters ultimately discharged to sanitary sewer or washing conducted indoors?			
Fluid replacement areas clearly designated and in locations where there are no connections to storm drains or sanitary sewer?			
Evidence of cleanup by dry techniques?			
Tarps and vacuums used to collect sanding debris?			
Batteries stored in designated area with containment, away from exposure to storm water?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free of visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF TEST CELL

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums stored within secondary containment?			
Drums and other containers properly closed?			
Drip pans used during repair activities?			
Self-contained solvent stations used?			
Evidence of cleanup by dry techniques?			
Drains, sumps, and OWS clean and flowing freely?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF AERO CLUB

Date of Inspection (MM/DD/YYYY): _____ Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): ___/___/___ Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums and other containers properly closed?			
Evidence of cleanup by dry techniques?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF FUEL HANGER – BUILDING 315

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums and other containers properly closed?			
Drip pans used during repair activities?			
Evidence of cleanup by dry techniques?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Area around AST clean and free of staining?			
Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #1 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF AGE REFUELING STATION – BUILDING 571

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
Drums and other containers properly closed?			
Evidence of cleanup by dry techniques?			
Drop inlets and other storm water collection structures free of debris and in good condition?			
Spill overflow protection equipment installed and in working order?			
Secondary containment structures free of debris?			
• No standing water inside containment areas?			
• Outlet valves locked?			
• Area free from visible staining?			
• Piping and connections in good shape?			
• Spill response kits accessible?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Chemical Oxygen Demand (COD)	250 L plastic – H_2SO_4 – Cool to 4° C	410
Total Suspended Solids (TSS)	1 L plastic – No Preservative – Cool to 4° C	160
Aluminum, Total	1 L plastic – HNO_3 – Cool to 4° C	200 or 202
Iron, Total	" "	351
Copper, Total	" "	200 or 220
Lead, Total	" "	200 or 239
Zinc, Total	" "	200 or 289

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF DEFENSE REUTILIZATION AND MARKETING OFFICE AREA

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt or concrete?			
Loading and unloading in designated areas?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
All containers clearly labeled with contents?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries segregated and stored indoors? If stored outside, are they covered and elevated off the ground and in secondary containment?			
All wastewater at the washrack flows into the OWS?			
Drains, OWS, and sand trap clean and flowing freely?			
Dry clean up methods in use?			
Dry absorbent materials used to absorb liquid spills?			
Fluids are removed from scrapped machinery and vehicles before storing outside?			
Drip pans used under leaking vehicles or equipment?			
Drips drained and cleaned?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Current inventory of potential pollutant materials stored and used at the facility?			
Hazardous waste storage area bermed and covered?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF CIVIL ENGINEERING

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt or concrete?			
Drip pans used under leaking vehicles or equipment?			
Drip pans emptied and cleaned?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
All containers clearly labeled with contents?			
Metal drums stored outside off of ground or located in secondary containment area?			
Spent batteries segregated and stored indoors? If stored outside, are they covered and elevated off the ground and in secondary containment?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
All wastewater at the washrack flows into the OWS or sand trap?			
Drains, OWS, and sand trap clean and flowing freely?			
Floors cleaned using dry methods?			
Oil filters drained prior to disposal?			
Dry absorbent materials used to absorb liquid spills?			
Hazardous waste storage area bermed and covered?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF DRAINAGE AREA 2 FACILITIES
(COPY THIS SHEET AS NECESSARY)
Base Supply Storage Yard German Air Force Entomology
(circle one)

RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt or concrete?			
Loading and unloading in designated areas?			
Drip pans used under leaking vehicles or equipment?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
Metal drums stored outside off of ground or located in secondary containment area?			
All containers clearly labeled with contents?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Hazardous waste storage area bermed and covered?			
Spent batteries segregated and stored indoors? If stored outside, are they covered and elevated off the ground and in secondary containment?			
Drains, OWS, and sand trap clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Hazardous waste storage area bermed and covered?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF BASE TRANSPORTATION

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt or concrete?			
Loading and unloading in designated areas?			
Metal drums stored outside off of ground or located in secondary containment area?			
Drip pans used under leaking vehicles or equipment?			
Drip pans emptied and cleaned?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
All containers clearly labeled with contents?			
Spent batteries segregated and stored indoors? If stored outside, are they covered and elevated off the ground and in secondary containment?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
All wastewater at the washrack flows into the OWS or sand trap?			
Drains, OWS, and sand trap clean and flowing freely?			
Floors cleaned using dry methods?			
Oil filters drained prior to disposal?			
Dry absorbent materials used to absorb liquid spills?			
Fluids are removed from scrapped machinery and vehicles before storing outside?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Hazardous waste storage area bermed and covered?			

OUTFALL #2 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF BASE TRANSPORTATION			
	Yes	**No**	**Comments/Corrections**
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			
Additional Comments:			

OUTFALL #3 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #3 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION
Fuels Management Flight and German Air Force Fuels Facility

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on pavement?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Scrap metal stored off the ground?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Oil leaks from equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #4 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #4 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF HAZMART (BUILDING 806)

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy

(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers closed if not in use?			
All containers clearly labeled with contents?			
All containers stored inside building or sheds?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #4 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF SOUND SUPPRESSORS AREA
(COPY THIS SHEET AS NECESSARY)
BUILDING (circle one): 11648 11649
RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
All washing performed inside?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #4 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF STEALTH SQUADRON AREA
(COPY THIS SHEET AS NECESSARY)

BUILDING (circle one): 800 816 820 828 866 868 869 871 877 883 898 21810 21819

RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Scrap metal and new metal piping and sheets stored off the ground?			
Outside containers of AFFF in good condition and not leaking?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Oil leaks from equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #5 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge not clear?			
Are there deposits or stains?			
Are there floating solids/particles/debris?			
Are there solids suspended in the water?			
Is there paper or cardboard in the water?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
None		

OUTFALL #5 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF NEWTECH
(COPY THIS SHEET AS NECESSARY)

BUILDING (circle one): 837 842 843 844 845 849 850 851 856 881 897

RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Scrap metal stored off the ground?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries stored indoors?			
Oil leaks from equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #6 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #6 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF 49th MATERIEL MAINTENANCE GROUP (BARE BASE)
(COPY THIS SHEET AS NECESSARY)
BUILDING (circle one): 901 1225 1227 902 903 906 907 918 958
RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All painting is performed inside?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries stored indoors?			
Oil leaks from equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #8 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge not clear?			
Are there deposits or stains?			
Are there floating solids/particles/debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there paper or cardboard in the water?			
Is there foam on the water surface?			
Is there sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #8 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF TEST TRACK SUPPORT FACILITIES
(COPY THIS SHEET AS NECESSARY)
BUILDING (circle one): 1166 1173 1178 1178A 1180 1185
RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All painting is performed inside?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries stored indoors?			
Oil leaks from aircraft and equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Deicing fluids prevented from mixing with storm water?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #9 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge not clear?			
Are there deposits or stains?			
Are there floating solids/particles/debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there paper or cardboard in the water?			
Is there foam on the water surface?			
Is there sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #9 INSPECTION FORM

Holloman AFB, New Mexico

OUTFALL #9 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF WASTEWATER TREATMENT PLANT

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
All wastes stored are under cover or protected from contact with storm water?			
Sludge drying beds draining properly?			
Oil and fluid leaks contained in drip pans or on pads?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Storm water diverted around drying beds?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Screens disposed of daily and properly?			

Additional Comments:

OUTFALL #11 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N Sample Time:

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Did sample not take place within first 30 minutes of outfall?			
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge is not clear?			
Are there deposits or stains?			
Are there floating solids / particles / debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Any other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Visual Only as per Table 4-1		

OUTFALL #11 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF T-38 OPERATIONS FACILITY

Date of Inspection (MM/DD/YYYY): _____ Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): ___/___/___ Currently Raining: Y N Sunny Cloudy (CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on pavement?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All painting is performed inside?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries stored indoors?			
Oil leaks from aircraft and equipment contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWSs, oil/detergent traps, and/or sand traps clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Washwater outside directed to sewer?			
Deicing fluids prevented from mixing with storm water?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #12 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL/POND

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Does the discharge have an odor?			
Does the discharge have a color?			
Is the discharge clear?			
Are there deposits or stains?			
Are there floating solids/particles/debris?			
Are there solids suspended in the water?			
Are there settled solids?			
Is there paper or cardboard in the water?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
No outfall sampling point		

OUTFALL #12 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF DRAINAGE AREA 12 FACILITIES
(COPY THIS SHEET AS NECESSARY)
BUILDING (circle one): 1080 1058 1083 1073 1058 1001 1079
RESPONSIBLE ORGANIZATION: _____

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
Containers are closed if not in use?			
All containers clearly labeled with contents?			
Metal drums are stored off the ground?			
Metal drums are stored within secondary containment?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
Spent batteries stored indoors?			
No evidence of leaks from vehicles or AGE equipment? If No, leaks contained in drip pans?			
All wastewater at the washrack flows into the OWS?			
Drains, OWS, and oil/detergent trap clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Oil filters drained before recycling or disposal?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Current inventory of potential pollutant materials stored and used at the facility?			
Deicing fluids prevented from mixing with stormwater?			
Facility annually inspected? (ECAMP)			

Additional Comments:

OUTFALL #13 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF OUTFALL

Date of Inspection (MM/DD/YYYY): / / Inspector:

Weather Conditions:

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

Samples Collected: Y N

A **Yes** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Does the discharge have an odor?			
Does the discharge have a color?			
Discharge not clear?			
Are there deposits or stains?			
Are there floating solids/particles/debris?			
Are there settled solids?			
Are there solids suspended in the water?			
Is there paper or cardboard in the water?			
Is there foam on the water surface?			
Is there a sheen on the water surface?			
Is the vegetation in poor condition?			
Is debris or vegetation blocking the outfall?			
Has erosion/scouring occurred at the outfall?			
Is the discharge structure in poor condition?			
Other indications of pollution?			

Additional Comments:

Sampling Parameters

Parameter	Containers and Preservative	EPA Method
Chemical Oxygen Demand (COD)	250 ml plastic – H_2SO_4 – Cool to 4° C	410
Total Suspended Solids (TSS)	1 L plastic - None	160
Aluminum, Total	1 L plastic – HNO_3 – Cool to 4° C	200 or 202
Copper, Total	1 L plastic – HNO_3 – Cool to 4° C	200 or 220
Lead, Total	1 L plastic – HNO_3 – Cool to 4° C	200 or 239
Zinc, Total	1 L plastic – HNO_3 – Cool to 4° C	200 or 289
Iron, Total	1 L plastic – HNO_3 – Cool to 4° C	351

OUTFALL #13 INSPECTION FORM

Holloman AFB, New Mexico

OUTFALL #13 INSPECTION FORM

Holloman AFB, New Mexico

VISUAL INSPECTION OF RECYCLING CENTER

Date of Inspection (MM/DD/YYYY): / / Inspector: _____

Weather Conditions: _____

Last Rain Event (MM/DD/YYYY): / / Currently Raining: Y N Sunny Cloudy
(CIRCLE ONE)

A **No** answer to any of the questions below indicates a potential non-adherence to the BMPs.

	Yes	No	Comments/Corrections
Outside areas clean and free of debris?			
No obvious signs of soil staining?			
No significant oil staining on asphalt?			
All containers clearly labeled with contents?			
All recyclable paper and cardboard under cover?			
All scrap metal under cover?			
All scrap metal is not in contact with ground?			
All wastes stored are under cover or protected from contact with storm water?			
All dikes and curbs used to divert or contain spills and/or storm water in good condition?			
All wastewater at the washrack flows into the OWS?			
Drains, OWS, and oil/detergent trap clean and flowing freely?			
Floors cleaned using dry methods?			
Dry absorbent materials used to absorb liquid spills?			
Fluids are removed from scrapped machinery and vehicles before storing outside?			
Spill control stations clearly marked?			
Spill control stations appropriately stocked?			
Security personnel trained on SWPPP?			
Current inventory of potential pollutant materials stored and used at the facility?			
Facility annually inspected? (ECAMP)			

Additional Comments:

Training for Storm Water

Presented by

49th Civil Engineers

Storm Water

- Users have a huge impact on Holloman's storm water quality *and legal liability*
- Best Management Practices (BMP) are the tools you use to make positive impacts
- Storm water is considered potential drinking water by the EPA
- Even white sands waters may some day be our drinking water

Typical Storm Water Pollutants

- Oil, grease, soap, and chemicals
- Heavy metals
- Nutrients
- Litter and debris
- Bacteria and pathogens
- Mud and Sediment

SW Monitoring Program

Holloman AFB has continuous automated monitoring for pollutants at Storm Water Outfalls.

Users MUST REPORT spills before they get to outfalls.

Spills that make it this far can cause fines and potential criminal liability (you could go to jail).

SW Inspection Program

Area Responsibilities

- Unit Environmental Coordinator primary responsibility (an alternate must be designated)

– Quarterly Self Inspections

- Documented inspection
- Checklist of BMPs
- Training certificates need to be posted in binder

– Send a copy of the report EACH QUARTER to 49CES/CEV Mr. Desmare

SW Inspection Program

- Common Problems
  - Metal on Ground
    - Iron is a pollutant
    - Copper is too
    - Metals that are poisons are pollutants such as arsenic, lead, and silver
  - Housekeeping
    - Trash adds nutrients causing oxygen depletion
  - Mud (sediment fills the drain)
    - Vehicles, construction, washing, erosion
  - Painting/Sandblasting
    - Trace chemicals on the ground wash into storm water

Good Housekeeping

- What to do:
  - Don’t let vehicles drip oil (report leaks on AF 244)
  - Clean off drum tops
  - Pick up trash
  - Cover equipment left outside
  - Put drums inside if possible
  - Keep potential spills away from storm drains
  - DO NOT put ANYTHING down storm drains! They are for natural rainfall!

Good Housekeeping

An example of what we DO want - use of drip pans.

Note these need to be emptied and monitored!

Housekeeping

Things you should do:

Place materials **away** from storm drains.

Use secondary containment indoors and overhead coverage outdoors.

Housekeeping

- Litter in drainage areas must be cleaned up
- Dumpsters that are uncovered or over-full are to be reported and corrected

Preventative Maintenance

- ID systems with potential to pollute:
  - inspect: valves, pipes, pumps, storage tanks, etc.
  - Your checklist will have BMPs on each identified system
- Verify maintenance of structural BMPs:
  - catch basins
  - oil/water separators
  - drains

Spill Prevention and Response

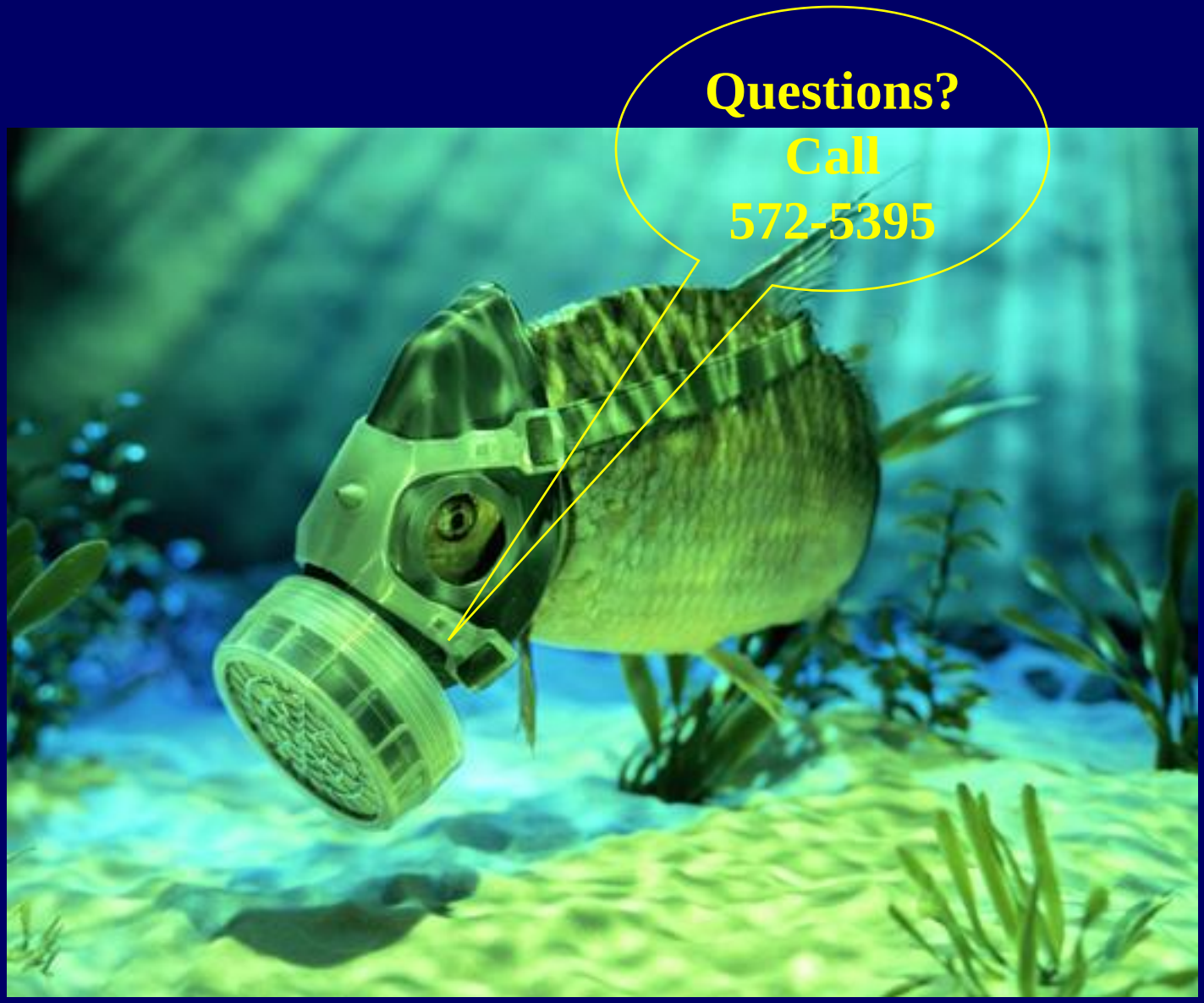
- CALL the Fire Department
  - Safety First - Don’t Take Risks
  - Stop the Spill at its Source
  - Protect Storm Drains
  - Spread Absorbent Material onto the spilled chemical
  - Follow your emergency procedures!

Best Management Practices

Structural Source Controls:
Overhead Coverage

Soil stock-pile

Fuels transfer


Questions?
Call
572-5395

MEMORANDUM FOR 49 CES/CEV DATE: _____

FROM: _____
(Print Organization Name)

ATTENTION: 49 CES/CEV, Storm Water Program Manager

SUBJECT: Storm Water Training Documentation

In compliance with the Clean Water Act, as amended (33. USC 1251 et seq.), and as required by section 4.2.7.2.1.6 of the U.S. EPA National Pollutant Discharge Elimination System Multi-Sector General Permits for Storm Water Discharges associated with Industrial Activity, I have accomplished employee training covering the components and goals of Holloman AFB's Storm Water Pollution Prevention Plan and covering such topics as spill response, good housekeeping, material management practice and Best Management Practice operation and maintenance. Training was accomplished by my completion of the Holloman AFB Storm Water Pollution Prevention Training program provided by the Storm Water Program Manager.

Printed Name	Signature	Phone Number
_____	_____	_____
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Notes:
1. Make and maintain a copy of this memorandum for the organization file.
2. Maintain this document indefinitely.
3. This training must be accomplished annually.

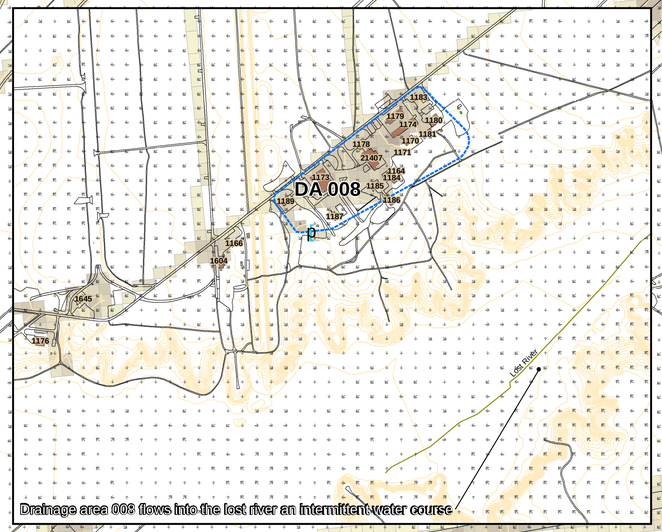
Appendix F

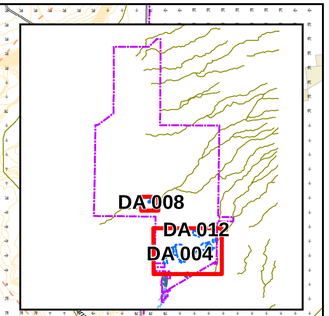
The PPT member responsibilities and positions are listed in Tables 2-1 and 2-2. Personnel have been identified by position rather than by individual name because of the frequent turnover and deployment required of military personnel. A roster of the personnel positions assigned to the team, including their telephone numbers and responsibilities, is presented in Attachment 1 of the SWPPP.

Pollution Prevention and Implementation Team Members

Name	Title	e-mail	Telephone Number	Responsibilities [a]
Jeffrey L. Harrigian	Commander, 49th Fighter Wing	Jeffrey.Harrigian@holloman.af.mil	575/572-5571	1
Michael J. O'Sullivan	Staff Judge Advocate	Michael.OSullivan@holloman.af.mil	757-572-7217	3
A. David Budak	Deputy Base Civil Engineer	aydin.budak@holloman.af.mil	575/572-3071	2
Deborah Hartell	Environmental Flight Chief	deborah.hartell@holloman.af.mil	575/572-3931	5,6,7
Will Desmare	Storm Water Quality Program Manager	Gabriel.desmare@holloman.af.mil	575/572-3931	4,8 through 27
Patrick Jenkins	Pollution Prevention Program Manager, CTP2 Coordinator	Patrick.jenkins@holloman.af.mil	575/572-3931	28
Larry Bean, Artis Allen	46 Test Group/XP Environmental Coordinator, Drainage Area 008	artis.allen@holloman.af.mil	575/679-1435	21
Ron Brownell	M-1 Facilities Environmental Coordinator, Drainage Area 001, 004, 011	Ronald.Brownell@holloman.af.mil	575/572-7735	14, 17, 24
Ursula Davis	German Air Force Environmental Coordinator, Drainage Area 001	ursuladavis@bundeswehr.org	575/572-2808 575/572-2809	14
David Rizutto	R&R Construction, HAFB Stormwater consultant	rrenvironmental@zianet.com	575/679-2011	4,8 through 27
Mr. Steve Jones	49 LRS/LGRVM Environmental Coordinator, Drainage Area 002	Steven.Jones@holloman.af.mil	575/572-3009	15
Larry Delano	49 LRS/LGRVM, Fuels Coordinator, Drainage Area 002	Larry.Delano@holloman.af.mil	575/572-7588	15
Jack Moheit	New Tec Facilities Environmental Coordinator, Drainage Area 005, 008	moheitj@newtec.wsmr.army.mil	575/679-1920	18, 21
Mr. Samuel Becerra Mr. Paul Myers	Phillips Balloon Laboratory Environmental Coordinator, Drainage Area 005	Samuel.Becerra@holloman.af.mil Paul.Myers@hollomanl.af.mil	575/572-5421	18
TSgt Tara Boozer	49 MXG Environmental Coordinator, Raptor Flight Line Drainage Area 004	Tara.Boozer@holloman.af.mil	575/572-3637	17
SSgt Roger Davis (HAZMART)	49 LRS (now MMSS) Environmental Coordinator, Drainage Area 004, 001, 002	Roger.Davis@holloman.af.mil	575/572-7899	17
TSgt Kevin R. Kay	49 MMG Environmental Coordinator, Drainage Area 006	Kevin.Kay@holloman.af.mil	575/572-3659 575/572-3006	19

Johnny Rasnick	DRMO Environmental Coordinator, Drainage Area 002	johnny.rasnick@dla.mil	575/572-7860	15
Mr. Buddy Ward	49 SVS, Auto Hobby Environmental Coordinator, Drainage Area 001	James.Ward@holloman.af.mil	575/572-7463	14
TSgt Gary Alexander	POL Environmental Coordinator, Drainage Area 003	Gary.Alexander@holloman.af.mil	(575) 572-5671	16
TSgt Gary Alexander	POL, 49LRS, Drainage Area 001, 002, 003, 004	Gary.Alexander@holloman.af.mil	55/572-5739	14, 15, 16, & 17
Mr. Balajadia	Entomology, Drainage Area 002	Audrey.Balajadia@holloman.af.mil	575/572-0426	15
Mr. Paul Junge	46TG, Bldg 1079, Drainage Area 012	Paul.Junge@holloman.af.mil	575/679-1302, 575/572-7335	25
Bill Ford	49CES/CEV, Rubble Area Coordinator, Drainage Area 014	bill.ford@holloman.af.mil	575/572-3931	26, 27
[a] A detailed list of the numbered responsibilities referred to in this column is provided in Tables 2-1 and 2-2 of the SWPPP.				





DA 012

DA 003

DA 002

DA 001

DA 011

DA 005

DA 006

DA 004

DA 013

DA 009

All drainage areas with the exception of 006 flow into Lake Holloman (Raptor Lake)

0 0.15 0.3 0.6 0.9 1.2 Kilometers

Holloman Air Force Base Stormwater Infrastructure

Impervious Surfaces (percent impervious)

0 - 2 | 3 - 4 | 5 - 6 | 7 - 8 | 9 - 10 | 11 - 13 | 14 - 16 | 16 - 18 | 19 - 21 | 22 - 24 | 25 - 27 | 28 - 29 | 30 - 31 | 32 - 33 | 34 - 35 | 36 - 37 | 38 - 39 | 40 - 41 | 43 - 44 | 45 - 46 | 47 - 49 | 50 - 52 | 53 - 55 | 56 - 59 | 60 - 63 | 64 - 66 | 67 - 70 | 71 - 75 | 76 - 78 | 79 - 80 | 81 - 83 | 84 - 88 | 89 - 94

- Outfalls
- Drainage Areas
- Treatment, Storage, Disposal Structures
- Vehicle and Equipment Maintenance Structures
- Existing Structures
- HAFB Boundary
- Roads, Driveways, Parking Lots Paved and Unpaved

Above Ground Storage Tanks

Product, Status

- AG, Closed
- AG, Operational
- Bio-D, Operational
- D, Closed
- D, Operational
- JP-8, Operational
- M, Closed
- M, Operational
- SPEC-AID 8Q462, Operational
- U-O, Operational

Flow Direction

E SE S SW W NW N NE

Stormwater Structures

- Stormwater Reservoir
- Stormwater Junction
- Stormwater Inlet
- Stormwater Fitting
- Stormwater Discharge
- Stormwater Ditch
- Stormwater Line

Department of the Air Force
Air Combat Command
CES/CEAO

1:8,000

1 inch equals 203.2 meters

240 Meters

Coordinate System: UTM Zone 13N, Datum: WGS84

APPENDIX H

Hazardous Materials Plan

Information, procedures, and data pertaining to this plan (which includes a computer program, EMIS, and corresponding electronic data base) are available from the 49th CES/CEAN Hazardous Materials Manager. The Hazardous Materials Plan also incorporates the Holloman Emergency Response Plan, which is a controlled document.

Contact information:

- Phone Number: (575) 572-3931
- Address: 49 CES/CEAN
  ATTN: Hazardous Materials Manager
  550 Tabosa Ave
  Holloman AFB, NM 88330

APPENDIX I

This Appendix is reserved for future use. It will be used to document the annual inspections that are performed to determine compliance with the 2008 MSGP.

HOLLOMAN AIR FORCE BASE

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

PREPARED FOR
49 CES/CEA
550 TABOSA AVENUE
HOLLOMAN AFB, NEW MEXICO 88330-8458

PREPARED BY
EARTH TECH
8008 OUTER CIRCLE ROAD
BROOKS CITY-BASE, TEXAS 78235

DECEMBER 2008

REVISION 2

SPCC PLAN CONTENTS

SPCC PLAN CONTENTS (continued)

LIST OF FIGURES

LIST OF TABLES

Each Container Area in Section 5 contains tables summarizing information under the following headings:

- Containers,
- Product Handling,
- Secondary Containment,
- Inspection and Testing, and
- Potential Spill Scenarios

LIST OF ACRONYMS

AAD	Army Air Division
AAFES	Army and Air Force Exchange Service
AFFF	Aqueos Film-Forming Foam
AFIs	Air Force Instructions
AGE	Aerospace Ground Equipment
API	American Petroleum Institute
AST	Aboveground Storage Tanks
ATG	Automatic Tank Gaging
ATRS	Aerial Target Squadron
AvGas	Aviation Gasoline
CE	Civil Engineering
CFR	Code of Federal Regulations
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
FRP	Facility Response Plan
FMF	Fuels Management Flight
GAF	German Air Force
GIS	Geographic Information System
GOV	Government Owned Vehicle
IEEE	Institute for Electronic and Electrical Engineers
LEPC	Local Emergency Planning Committee
MAJCOM	Major Command
NFPA	National Fire Protection Association
NRC	National Response Center
POL	Petroleum, Oil and Lubricant
OWS	Oil/Water Separator
RQ	Reportable Quantity
SPCC	Spill Prevention, Control, and Countermeasure Plan
STI	Steel Tank Institute
TO	Technical Orders
UFC	Unified Facilities Criteria
US EPA	United States Environmental Protection Agency
USTs	Underground Storage Tanks

ENGINEER'S CERTIFICATION

I, Rebecca N. Fricke, attest by means of this certification:

- That I am familiar with the requirements of 40 CFR § 112;
- That I or my agent has visited and examined the facility;
- That this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;
- That procedures for required inspections and testing have been established; and
- That this Plan is adequate for the facility.

_____ _____

Don Coulombe, PE Date
Earth Tech.
8008 Outer Circle Road
Brooks City-Base, Texas 78235

State of New Mexico Licensed Professional Engineer No. 16386

MANAGEMENT ENDORSEMENT

This Spill Prevention, Control, and Countermeasure Plan for Holloman Air Force Base has my full endorsement and I am at a level of authority to commit the necessary resources to implement this plan as herein described.

Jeffrey L. Harrigian Date
Colonel, USAF
Commander, 49 Fighter Wing
Holloman Air Force Base

REVISION TRACKING FORM

Date	Revision Number	Plan Section	Description

Note: Non-technical revisions, such as changes in contact information, do not require PE Certification.

Aa stated in 40 CFR § 112.5(b), this Plan shall be reviewed at least once every five years. If there are no changes to the Plan, facility management should certify the following statement:

"I have completed a review and evaluation of this SPCC Plan for HOLLOMAN AFB and will not amend the Plan as a result."

Signed: _____

Jeffrey L. Harrigian
Colonel, USAF
Commander, 49 Fighter Wing

Date: _____

40 CFR 112 CROSS REFERENCE TABLE

Final SPCC Rule	Description of Section	Section
§ 112.3(d)	PE certification.	vii
§ 112.3(e)	Facility maintains copy of plan.	1.0
§ 112.4(a)	Submittal requirements to the regional administrator.	4.1
§ 112.5(a)	Updating requirements.	4.1
§ 112.5(b)	Plan reviewed at least once every five years.	4.1
§ 112.7	Cross-reference table to the parts of the regulation.	Cross Reference Table
§ 112.7	Facility management signature.	viii
§ 112.7(a)(1,2)	Conformance with the regulations, details on equivalent environmental protection.	4.2
§ 112.7(a)(3)	Plot plan showing the location and contents of each container, exempted UST, piping, and transfer station.	Figures 2-1 and 2-2, Figures in Section 5
§ 112.7(b)	Potential discharge from equipment failure	5.x.5
§ 112.7(c)	Secondary containment.	5.x.3
§ 112.7(d)	Contingency planning.	NA
§ 112.7(e)	Inspections, tests, and records.	4.5, 5.x.4
§ 112.7(f)(1)	Personnel training program requirements.	4.3
§ 112.7(f)(2)	Accountability for discharge prevention.	1.0
§ 112.7(g)	Security (excluding oil production facilities).	4.4
§ 112.7(h)	Loading/unloading.	4.13, 5.x.2
§ 112.7(i)	Brittle fracture evaluation requirements.	5.1.4
§ 112.7(j)	Conformance with State requirements.	4.2
§ 112.8(b)	Facility drainage.	4.11
§ 112.8(c)(1)	Bulk storage containers are compatible with material stored	2.1
§ 112.8(c)(2)	Bulk storage containers have appropriate secondary containment	5.x.3
§ 112.8(c)(3)	Requirements for drainage of diked areas	4.10

Note that "5.x" indicates a subsection in each Container Area described under Section 5 of the Plan.

40 CFR 112 CROSS REFERENCE TABLE (continued)

Final SPCC Rule	Description of Section	Section
§ 112.8(c)(4)	Cathodic protection for buried tanks	NA
§ 112.8(c)(5)	Cathodic protection for partially buried tanks	NA
§ 112.8(c)(6)	Inspections and integrity testing for aboveground containers	4.8, 5.x.4
§ 112.8(c)(7)	Monitor internal steam heating coils	NA
§ 112.8(c)(8)	High level alarm requirements	5.x.2
§ 112.8(c)(9)	Observe effluent treatment facilities	NA
§ 112.8(c)(10)	Correct visible discharges	4.7
§ 112.8(c)(11)	Locate mobile containers in secondary containment	4.9
§ 112.8(d)	Facility transfer operations, pumping, and facility process.	5.13, 5.x.2
§ 112.20(f)	Certification of Substantial Harm Criteria	3.0, Appendix C

Note that "5.x" indicates a subsection in each Container Area described under Section 5 of the Plan.

1.0 INTRODUCTION

The Oil Pollution Prevention regulations, administered under the authority of the United States Environmental Protection Agency (US EPA), require certain facilities to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan in order to reduce or eliminate oil discharges to navigable waters of the United States. SPCC Plans document regulated containers at a facility and the inspection, testing, and maintenance procedures for those containers. Emergency response actions are also defined in this Plan.

This document is the SPCC Plan (or Plan) for Holloman Air Force Base (Holloman AFB) located west of Alamogordo, New Mexico. This Plan has been prepared according to Title 40, Part 112 of the Code of Federal Regulations (40 CFR § 112) as amended on 17 July 2002. This Plan includes references to industry standards that apply to containers at the facility, and has been certified by a Professional Engineer registered in the State of New Mexico.

The 49 CES/CEA is accountable for discharge prevention. The SPCC Program Manager in 49 CES/CEA is responsible for maintaining this Plan. A copy of this Plan is maintained at this facility.

Important sections of the SPCC are:

- Section 2.0 describes the Base and its oil storage containers.
- Section 3.0. describes the applicability of the SPCC regulations
- Section 4.0. contains general information required to be in any approved SPCC Plan
- Section 4.7. describes spill response procedures.
- Section 6.0. contains the schedule for implementing any required changes in Base operations as a result of implementing this Plan.
- Facility contacts are located on the back panel of this report

2.0 FACILITY DESCRIPTION

2.1 General Information

Holloman AFB is located on approximately 59,743 acres of land about seven miles west of the City of Alamogordo in Otero County, south central New Mexico. The base lands are situtated in the northern Chihuahuan Desert in the region known as the Tularosa Basin that is bound on the east and west by the Sacramento and San Andres Mountains, respectively. The base is located adjacent to White Sands Missile Range and White Sands National Monument, both located west of the base. Regional water supplies are derived from Bonito Lake, located approximately 60 miles north of the base and the Boles, Douglas and San Andres Well Fields which are located 14 miles to the southeast.

The nearest population center is the City of Alamogordo, located seven miles to the east. Regional metropolitan centers include El Paso, Texas, located 90 miles south-southwest and Las Cruces, located 70 miles southwest of the facility. The primary transportation route for the base is Highway 70 that traverses its southern boundary in a northeasterly direction.

Holloman AFB was initiated as a temporary facility to provide gunnery and bomber training to aircrews during World War II. The base mission was altered in the post-war years to the development of unmanned aircraft, guided missiles, and associated equipment. Currently, Holloman AFB hosts the Air Combat Command 49th Fighter Wing, which includes pilot training, mobility support, and combat support operations. The primary Air Force Materiel Command component on Base is the 46th Test Group, which is responsible for evaluation of propulsion and navigational systems for aircraft, space vehicles and missiles. A variety of tenant organizations are assigned to Holloman AFB including the 4th Space Control Squadron, Detachment 4 of the 50th Weather Squadron, and a training center for the German Air Force. Figure 2-1 shows a diagram of the Base, and Figure 2-2 show the flightline area.

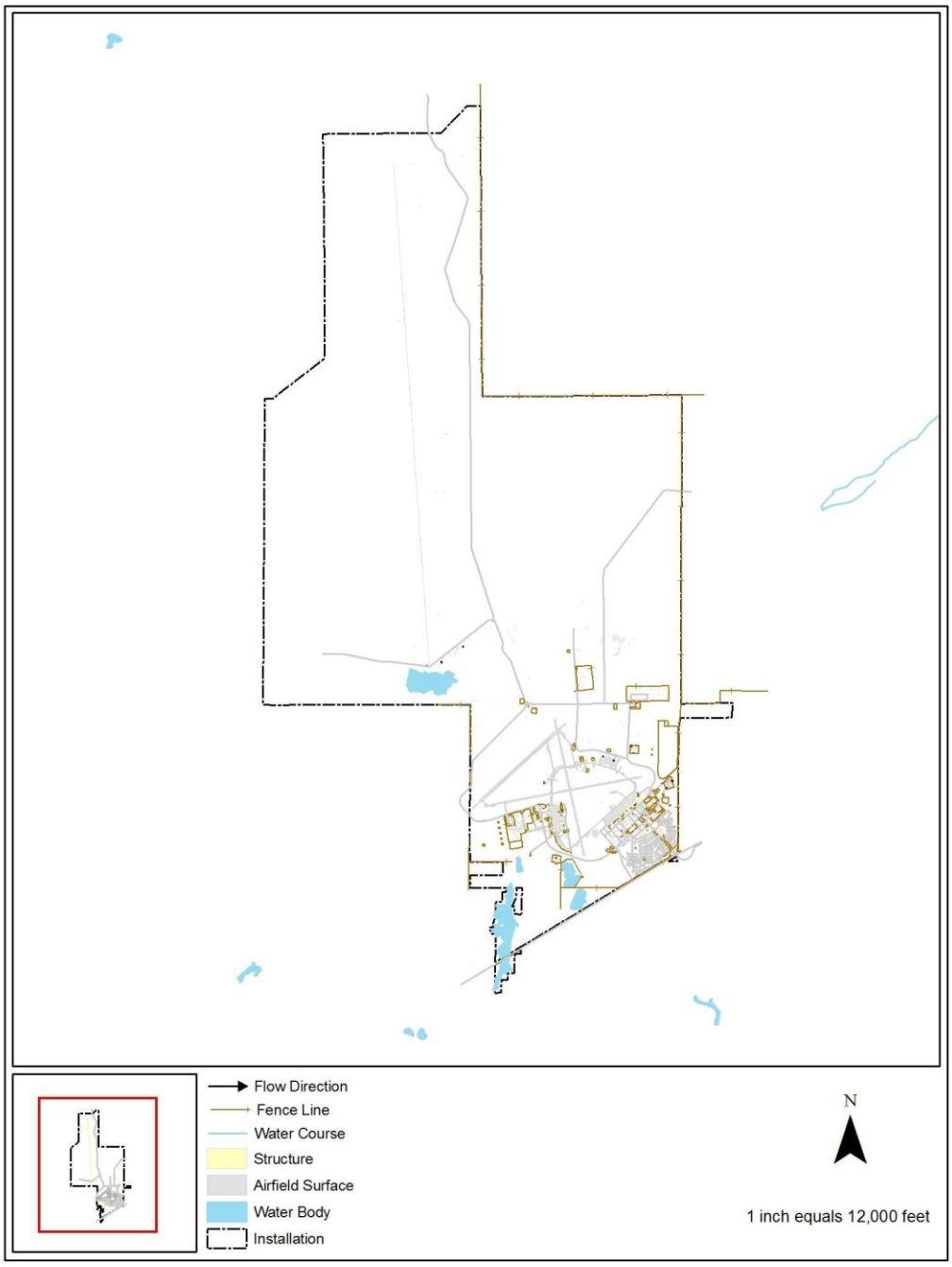


Figure 2-1. Facility Plot Plan

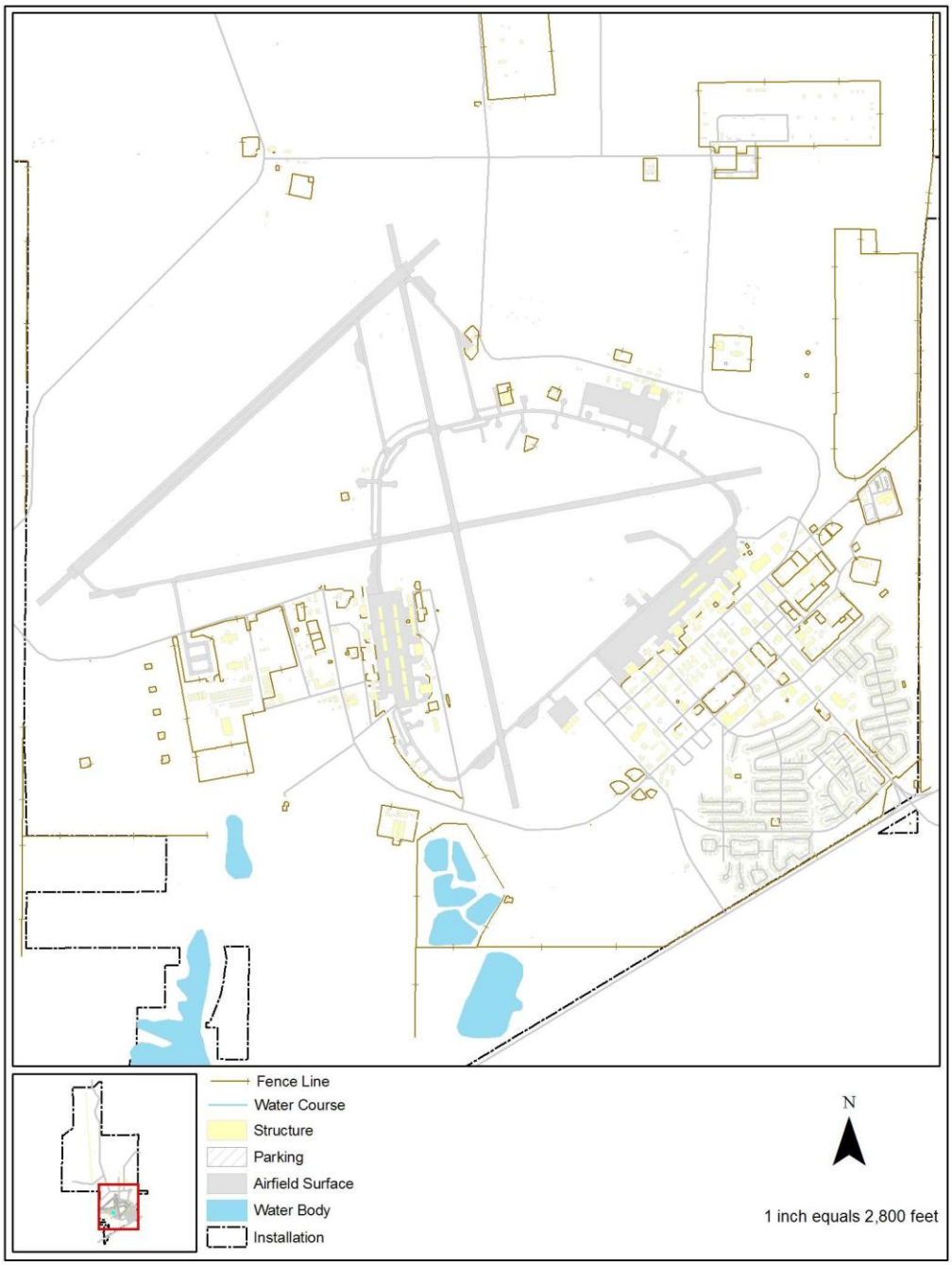


Figure 2-2. Flightline Area

The following SPCC-regulated oils are used at Holloman AFB:

- Gasoline (MOGAS)
- Diesel and Bio Diesel
- Engine Oil
- JP-8 (Jet Fuel)
- AV-GAS (Aviation Gas)
- Hydraulic fluid
- Mineral Oil
- Transformer Oil
- Vegetable Oil and Grease

These products are stored in a variety of containers including aboveground storage tanks, generator day tanks, 55-gallon drums, and smaller containers. Appendix A lists specific information for the SPCC regulated containers at this facility. All of the regulated containers are designed to operate at ambient temperatures and pressures. Also, all containers are designed to be compatible with the material stored. There are no under ground storage tanks at Holloman AFB.

2.2 Containers Not Covered By this Plan

There are several containers located on base property that are not covered by this Plan because they are owned and operated by a separate entity. El Paso Electric, the local utility, operates an electrical substation near the main base entrance that contains oil-filled electrical equipment with more than 55-gallon capacity. Also, the State of New Mexico owns the Holloman Elementary School (Buildings 19, 20, and 21) and is responsbile for any SPCC-regulated containers at that facility. Containers at these locations are not covered by this Plan.

Holloman AFB also owns and operates several large containers that are not subject to the SPCC requirements because of the material stored. The flightline requires large amounts of Aqueous Film-Forming Foam (AFFF) that is stored in several large tanks near the flightline. The base also has several large water tanks and small propane tanks that are not subject to the SPCC requirements.

Containers owned and operated by contractors temporarily working on Base property are not covered by this Plan. Such containers may include earthmoving equipment, fuel tanker trucks, or temporary aboveground storage tanks (ASTs). Each contractor is responsible for determining SPCC applicability and developing a site-

specific Plan if necessary. Spill response activities may involve Base personnel, but such containers are not covered by this Plan.

Holloman AFB also has several permanently closed containers that are exempt from SPCC regulation. In compliance with the SPCC definition of "permanently closed," these tanks and any connecting piping are empty of liquid and sludge, and all associated piping is disconnected. These containers would require physical modifications (such as new piping) to activate.

DoD has issued guidance stating that the US EPA did not intend to regulate fuel tanks greater than 55-gallon capacity that provide motive power for large trucks, earthmovers, recreational vehicles, and other such equipment. This guidance suggests that military installations address potential spills from such sources under the undiked areas description. This facility operates several types of equipment that are affected by this guidance including recreational vehicles and tractor-trailer trucks.(See Section 4.11 for more details regarding Undiked Areas).

2.3 Navigable Waters

The US EPA defines "navigable waters" in 40 CFR § 112.2. The term includes wetlands, lakes, bays, rivers, and streams of the United States. Practically, navigable waters includes all waterways of the US including seasonally dry stream beds and public storm water conduits.

Holloman AFB is crossed by several southwest trending "arroyos" or intermittent stream beds including Lost River (the largest), Dillard Draw, Malone Draw, and several smaller tributaries such as Red Arroyo and Arroyo Cavacita. Dillard Draw controls surface drainage from undeveloped areas of the Base. Any surface discharge into Dillard Draw flows to the southwest where it terminates in catchment areas.

3.0 APPLICABILITY DETERMINATION

According to 40 CFR § 112.1, Holloman AFB requires an SPCC Plan because the facility-wide aboveground oil storage capacity totals more than 1,320 gallons and oil discharges could potentially reach navigable waters.

40 CFR § 112.20(f) requires that affected facilities determine their potential for Substantial Harm and the ensuing requirement to file a Facility Response Plan (FRP) with the US EPA Regional Administrator. Figure 3.1 below shows the Flowchart of Criteria for Substantial Harm from Attachment C-1 to Appendix C of 40 CFR § 112. This flowchart asks several questions regarding the facility processes and storage capacity. As required by 40 CFR § 112.20(f), the Certification of the Applicability of the Substantial Harm Criteria is included in Appendix C of this Plan.

To determine substantial harm, facilities must calculate a planning distance for a worst-case spill and then determine if any sensitive environments are within that distance of the facility. Holloman AFB has 3 drainages; Malone, Ritas Draws and Lost River which are essential habitat for State threathened White Sands pupfish (*Cyprinodon tularosa*). Therefore, any planning distance would require Holloman AFB to prepare and implement an FRP. Also, in a letter dated 8 March 1999, US EPA Region VI required the installation to prepare a Facility Response Plan.

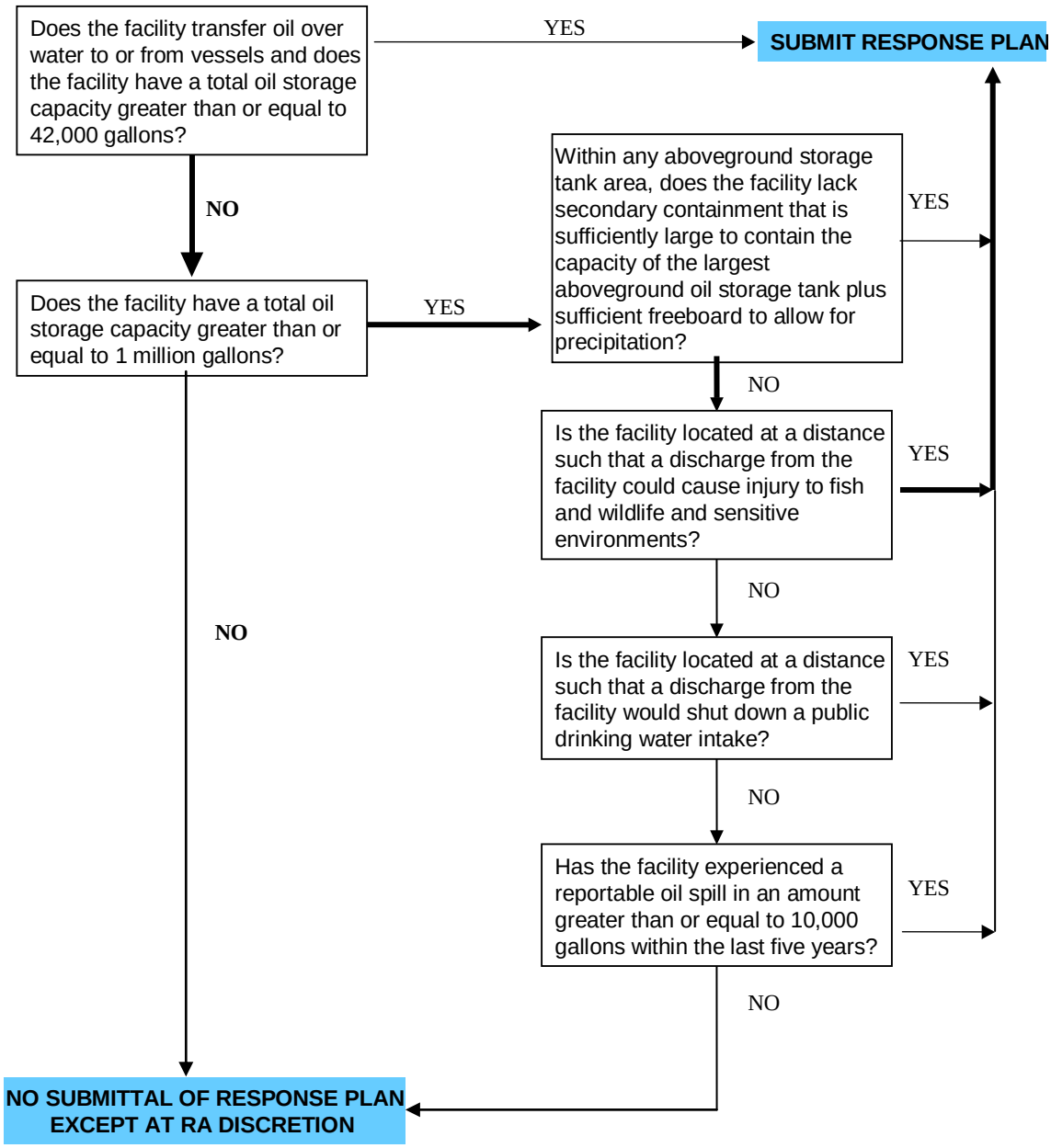


Figure 3-1. Flowchart of Criteria for Substantial Harm

4.0 GENERAL PLAN REQUIREMENTS

4.1 Plan Review and Submittal

This Plan:

- Must be reviewed and evaluated at least once every five years.

- Must be amended within six months of the review if more effective, field-proven prevention and control technologies that would significantly reduce the likelihood of a discharge are available at the time of the review. An amendment made to the Plan must be prepared within six months of the change in facility operation, and implemented as soon as possible, but not later than six months following preparation of the amendment. The revisions page at the beginning of this Plan must be updated to include all technical and non-technical changes to the Plan.

    - If there are any technical amendments to the Plan, then a Professional Engineer must recertify the Plan. Technical amendments include changes to the Plan that require engineering practice such as physical modifications or changes in facility procedures.

    - If the changes are non-technical in nature (e.g., contact name, phone number, container identification number, etc.), then the facility owner may recertify the Plan and indicate that no technical changes were made.

- Must be updated when:

    - Facility changes increase the potential for spills or change the spill prevention or response procedures methods and equipment
    - There is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge.
    - When the Plan fails or proves to be ineffective in prevention of, or response to a spill or incident
    - After enactment of, or amendment to federal or state legislation or changes in DoD or USAF policy
    - There is an addition, deletion, movement, replacement or reconstruction of containers
    - There is installation of piping systems

- There is construction or demolition that might alter secondary containment structures
- There is a change of product or service

Movement of containers within an area that does not increase the potential for a discharge would not require an update to the Plan.

A report must be submitted to the US EPA Regional Administrator and the state agency managing SPCC programs only if the facility has:

- Discharged more than 1,000 gallons of oil in a single discharge
- Discharged more than 42 gallons of oil in each of two discharges, occurring within any twelve-month period

40 CFR § 112.4(a) lists the information that must be submitted to the US EPA Regional Administrator no less than 60 days from the date of the discharge. This required information is also presented in Appendix D. The Regional Administrator or state agency may require that the SPCC Plan be submitted.

4.2 Conformance with Federal and State Regulations

This Plan is in conformance with applicable Federal, State, and local regulations and its main purpose is to comply with the requirements of 40 CFR § 112.

The Petroleum Storage Tank Bureau of the New Mexico Environment Department is responsible for administering Title 20, Chapter 5 of the New Mexico Administrative Code (NMAC) that applies to Petroleum Storage Tanks. Table 4.1 below lists the sections of this rule.

Table 4-1. New Mexico Regulations Relevant to SPCC Plans

Section of NMAC	Title
20.5.1	General Provisions
20.5.2	Registration of Tanks
20.5.3	Annual Fee
20.5.4	New and Upgraded Storage Tank Systems: Design, Construction and Installation
20.5.5	General Operating Requirements
20.5.6	Release Detection
20.5.7	Reporting and Investigation of Suspected and Confirmed Releases
20.5.8	Out of Service Systems and Closure
20.5.9	Financial Responsibility
20.5.10	Administrative Review
20.5.11	Lender Liability
20.5.12	Corrective Action for Storage Tank Systems Containing Petroleum Products
20.5.13	Corrective Action for Storage Tank Systems Containing Other Regulated Substances
20.5.14	Certification of Tank Installers
20.5.15	Corrective Action Fund Use and Expenditures
20.5.16	Qualification of Persons Performing Corrective Action
20.5.17	Corrective Action Fund Administration

20.5 NMAC:

- Specifies the applicability of the regulation to ASTs that have a storage capacity between 1,320 gallons and 55,000 gallons. Tanks that are not regulated include electrical equipment tanks, airport hydrant fuel distribution systems, and any system that stores fuel solely for use by emergency power generators
- Requires registration of aboveground storage tanks, payment of annual fees, design and installation criteria for new systems, and spill reporting
- Monthly visual inspections, operation and maintenance of secondary containment and vaults, overfill prevention equipment and procedures, and corrosion protection
- Requires installation of release detection equipment, and reporting of releases within 24 hours of discovery

4.3 Personnel Training

As required by 40 CFR § 112.7(f)(1 and 3), oil handling personnel are trained to prevent discharges. Shop supervisors conduct the training on an annual basis for all oil-handling personnel in spill prevention and response. This training includes a review of this Plan, applicable pollution control laws, spill response procedures, and general facility operations. Personnel also receive specific training in petroleum product handling procedures and equipment maintenance and operation. A sample training curriculum is included in Appendix E.

The Air Force produces Air Force Instructions (AFIs) that define the standard operating procedure for almost all operations including maintenance of Petroleum, Oil, and Lubricant (POL) systems. These AFIs in conjunction with Technical Orders (TO) and various Unified Facilities Criteria (UFC) outline the training requirements for POL handling. A summary of some of these standards is shown below in Table 4-2.

Fuels Management Flight (FMF) personnel operate the POL Yard (see Section 5.1) and receive training specific to their job functions. Beginning workers receive 40 hours of hands-on training learning to drive the tanker trucks. Newly assigned personnel then rotate throughout the flight working in different areas such as bulk storage, checkpoint, distribution, hydrants, and accounting.

FMF supervisors:

- Conduct and document weekly safety briefings that usually include a review of spill response procedures
- Conduct Tank Custodian training. This training is required for any base personnel responsible for an oil storage container. Tank Custodian training includes general tank maintenance procedures, methods of determining product level, and proper recordkeeping procedures. When a particular squadron requests FMF to deliver fuel to one of their containers, FMF confirms that the person requesting a fuel delivery is a registered Tank Custodian.

The Fire Department conducts drills and exercises to supplement class room training provided to Fire Department staff. On an annual basis, they conduct two spill/leak type drills. Generator shutdown drills are performed on a periodic basis.

Table 4-2. Air Force POL Standards

Standard	Title	Date	Description
AFI 23-201	Fuels Management	7 Jul 04	Establishes policy and administrative procedures for fuel operations. Assigns duties to a Base Fuels Management Office and a Fuels Management Team.
AFI 23-204	Organizational Fuel Tanks	27 April 94	Provides guidelines and procedures for operating fuel tanks. Includes directions for preparing daily and weekly fuel reports, procedures for fuel receipt and issue. Lists training requirements.
AFI 32-7044	Storage Tank Compliance	13 Nov 03	To be used with AFI 23-204 and TO 37-1-1 to comply with applicable UST and AST requirements. Requires tank inventories and compliance with other Air Force Instructions.
TO 37-1-1	General Operation and Inspection of Installed Fuel Storage and Dispensing Systems	28 Feb 02	Technical order that outlines specific responsibilities for operation and maintenance of storage and dispensing equipment. Covers a wide range of items including fuel strainer maintenance, sign marking standards, and cold weather precautions.
UFC 3-460-03	Operation and Maintenance: Maintenance of Petroleum Systems	21 Jan 03	Establishes minimum maintenance standards and recurring work program for facilities storing, distributing, and dispensing fuels for aircraft, liquid propellants for missiles, automotive fuels, aircraft lubricating oils, and military all-purpose diesel fuel. It does not cover mobile fueling equipment, heating oil systems or power production fuel systems. Includes chapters on pipelines, mechanical systems, hydrant systems, and storage tanks.

4.4 Security

Holloman AFB is a secured military installation. A fence topped with razor wire combined with a barbed wire fence forms the perimeter of the main base. Vehicle entrance gates require positive identification and all vehicles are subject to random searches. Visitors must obtain a pass at the Visitors Center and be escorted at all times while on base. This level of security ensures that oil storage areas may only be accessed by authorized personnel. Security specific to each container area is discussed in the appropriate part of Section 5. Outdoor fuel dispensers are disabled after operating hours. All pump starter controls are locked off when not in use and are only accessible to authorized personnel. All container areas on base have adequate facility lighting.

4.5 Recordkeeping

Individual shops maintain inspection and test records for the containers within their control. According to 40 CFR § 112.7(e), records are kept for a minimum of three years. Individual shops and/or 49 CES keep inspection and testing records for certified inspections for the life of the tank. Section 5 of this Plan describes the inspection and testing procedures for each container.

4.6 Spill History

Appendix F shows the Base spill history. All spills, regardless of whether they are a reportable quantity or not, are annotated in the base spill log. The most recent POL spill over 6,377 gallons occurred in November 2005 as the result of Pantographs Gasolineket degrading causing fuel to spill.

4.7 Spill Response

If a spill occurs, base personnel follow the response, reporting, and cleanup procedures appropriate to the level of spill. Personnel will promptly correct and cleanup any visible discharges. Table 4-3 indicates the various spill levels. The Base Fire Department can be reached from any on-base phone by dialing 2-7228. All spills should be reported to 49 CES/CEAN.

Table 4-3. Spill Response, Reporting, and Cleanup Procedures

Spill Volume (Gallons)	Who Responds?	Cleanup Methods
Less than 5	Shop Personnel	Sorbent Material, Pads
Greater than 5	Fire Department/ 49 CES/CEAN	Fire Department, Spill Contractor
Any amount that reaches the navigable waters	Fire Department/ 49 CES/CEAN	Fire Department, Spill Contractor

49 CES/CEAN may report spills to the US EPA, the National Response Center (NRC), and Air Combat Command (ACC). The US EPA does not distinguish between types of oil and (according to 40 CFR 110.6) any spill that causes a sheen upon "navigable waters" or that violates applicable water quality standards must be reported to the National Response Center (NRC). For Holloman AFB, this means that the NRC must be called if an oil spill reaches any of the arroyos shown on Figure 2-1 and described in Section 2.3.

US EPA hazardous materials regulations also have reportable quantity (RQ) thresholds such that if a hazardous material spill exceeds the RQ for that material, then a report must be filed with US EPA. Table 4-4 lists the current RQs for common constituents of petroleum products and the estimated spill quantity that may exceed the RQ. Base personnel should use the Material Safety Data Sheet specific to their petroleum product to calculate the actual quantity of each constituent released. The US EPA maintains the current list of RQs on their website.

Table 4-4. Reportable Quantities for Typical Petroleum Constituents

Substance	Reportable Quantity (Pounds)	Estimated Spill Gallons to Exceed RQ		
		Gasoline	Diesel	Jet Fuel
2,2,4-Trimethylpentane	1000	970,662	3,418	797,826
Benzene	10	429	100	2,336
Biphenyl	100	51,311	166,795	12,198
Cresols	100	29,656	2,044	27,771
Cumene	5000	336,198	95,033	613,738
Ethylbenzene	1000	61,351	10,048	56,301
Hexane	5000	171,207	11,298	175,463
MTBE	1000	NA	4,552	NA
Naphthalene	100	1,886	3,637	1,995
Phenol	1000	219,128	292,882	190,592
Styrene	1000	433,064	4,572	NA
Toluene	1000	36,630	2,236	25,114
Xylene	1000	18,262	2,250	14,541

Air Force reporting requirements are listed in AFI 23-201, Fuels Management. The Fuels Management Flight is required to:

- Report spills according to MAJCOM/LGRF and AFI 91-204, *Safety Investigations and Reports*, and AFI 10-206, *Operational Reporting* immediately and send a follow-up notification to MAJCOM/LGRF by the end of the first duty day after the spill.

- To send an advisory message or e-mail within 30 days to MAJCOM/LGRF on the outcome of the investigation and lessons learned. Reports should follow the format of the Fuel Spill Report included in AFI 23-201, Attachment 11.

Table 4-5 lists additional agencies that the SPCC Program Manager may need to contact to report a spill.

Table 4-5. Spill Reporting Agencies

Agency	Phone
LEPC for Otero County	505-439-2612
Department of Homeland Security and Emergency Management for New Mexico	505-476-9635
National Response Center	800-424-8802
New Mexico Spill Response Hotline	505-476-6025/1-866-428-6535

The information in Table 4-6 should be available when reporting a spill. Facility response equipment is maintained throughout the facility. Appendix G lists the spill response equipment and supplies maintained at the facility as well as response equipment maintained in the Fire Department HazMat Trailers.

4.8 Inspection and Testing

This Plan incorporates the inspection and testing requirements for regulated containers from applicable industry standards. The Steel Tank Institute (STI) issued Standard SP001-03 that applies to stationary shop-built tanks. This standard requires a Certified Inspection every 10 years and a Certified Integrity Test every 10 years. However, integrity tests will not be performed for smaller shop-built tanks (i.e., less than 30,000 gallons) that have all sides (including the bottom) clearly visible. Instead, facility personnel will provide equivalent environmental protection as allowed under 40 CFR 112.7(a)(2) by conducting monthly visual inspections and documenting the visual inspection in the inspection log.

Also, 40 CFR 112.8(c)(8)(v) requires verification of liquid level sensors on all bulk storage containers. Facility personnel will test these level sensors yearly and document the results in the inspection log.

4.9 Rainwater Inspection in Diked Areas

Some containers are surrounded by secondary containment dikes. Tank custodians or designated personnel:

- Drain rainwater from these diked areas through normally locked, manually activated valves or by using manually activated pumps.

- Verify that an oil shee is not present on the surface of the collected rainwater prior to opening the valve to release the contained rainwater. If a sheen is present, personnel take appropriate action for reporting and cleanup.

- Maintain a drain log recording when rainwater is released from the diked areas.

Table 4-6. Spill Reporting Information

Individual Reporting Spill		
Name and Address		HOLLOMAN AFB 49 CES/CEAN 550 Tabosa Avenue, Building 55, HOLLOMAN AFB, NM 88330-8458
Phone		**575-572-**
Date and Time of Spill		
Type of material discharged		
Estimate of the total quantity discharged and time/duration of the event		
Name of any waters involved or threatened		
Extent of actual and potential water pollution		
Location of the spill		
The source of the discharge		
Description of all affected media		
Cause of the discharge		
Any damages or injuries caused by the discharge		
Any known or anticipated health risks associated with the incident		
Possible hazards to the environment		
Actions being used to stop, remove, and mitigate the effects of the discharge		
Whether an evacuation may be needed		
The names of individuals and/or organizations who have also been contacted and the time contacted		
Name	**Organization**	**Time of Call**

4.10 Mobile and Portable Container Policy

Holloman AFB has implemented a policy to manage oils and fuels stored in drums, portable containers, and mobile containers with an oil storage capacity between 55-gallons and 10,000 gallons. Portable containers are typically mounted on skids or saddles but may remain in place for up to 12 consecutive months. Mobile containers are mounted to frames with wheels. Examples of mobile containers include bowsers, portable generator fuel tanks, and tanker trucks used by the POL Yard. Personnel frequently move these containers to another area or alter the number of containers in a particular area. For this reason, details for all the drums, portable containers, and mobile containers at this facility are not included in this Plan. This policy only applies to storage of oils and fuels and does not apply to containers storing corrosive liquids.

All containers covered by this Mobile and Portable Container Policy must have some form of secondary containment. This secondary containment may include spill pallets, diked storage areas, and/or storing containers inside a building with no spill route to navigable waters. Secondary containment is required when containers covered under this policy are stationary and not in use for at least eight consecutive hours. For example, bowsers and tanker trucks do not require secondary containment when in use but do require secondary containment when parked overnight.

As allowed under 40 CFR 112.7(a)(2), this facility will provide equivalent environmental protection through frequent inspections and testing as shown in Table 4-7. These inspections are based upon professional engineering recommendations. For containers where all sides (including the bottom) are clearly visible during the external visual inspection, personnel are not required to perform the integrity test.

Table 4-7. Mobile and Portable Container Inspections and Testing

Inspection	Method	Frequency
Routine external inspection for leaks	Visual	Monthly
Integrity Test or Internal Inspection	Hydrostatic, ultrasonic or other method recommended by the manufacturer or Air Force Instruction	10 Years

Records of external inspections shall be maintained for at least three years. Records of integrity tests and internal inspections should be maintained for the life of the container.

4.11 Undiked Areas

The SPCC regulations in 40 CFR 112.8(b) require facilities to prevent potential discharges from undiked areas by designing facility drainage systems to flow into catchment basins or lagoons. This facility's drainage system is not engineered in this fashion. The limited potential for spills outside of typical fuel handling areas does not warrant a complete redesign of the installation's existing drainage system. The installation's spill response capabilities as described in Section 4.7 and proper personnel training as described in Section 4.3 will prevent potential discharges from any undiked areas. These activities provide equivalent environmental protection (as allowed under 40 CFR 112.7(a)(2)) to a catchment basin.

The Department of Defense (DoD) has issued guidance stating that the US EPA did not intend to regulate fuel tanks that provide motive power for large trucks, earthmovers, recreational vehicles, and other such equipment. This guidance suggests that military installations address potential spills from such sources under the undiked areas description. This Installation operates several types of equipment that are affected by this guidance including large industrial trucks, recreational vehicles, and construction equipment.

4.12 New Construction

Any new construction will comply with the applicable requirements of 40 CFR 112. New buried metallic piping will either have a protective coating or cathodic protection. In the event that piping is exposed during an excavation, the pipe is inspected for corrosion.

4.13 General Product Handling

Installation personnel follow standard operating procedures for product handling as listed in applicable military standards. These standards include Air Force Instructions (AFIs), Technical Orders (TOs) and Unified Facilities Criteria (UFC).

These documents:

- Establish policy and administrative procedures for fuel operations

- Specify duties for fuel management personnel and organization tank custodians
- Provide guidelines and procedures for operating storage tanks
- Outline responsibilities for operation and maintenance of storage and dispensing equipment.
- Specify truck loading and unloading procedures for loading racks that include some method to prevent truck departure prior to complete decoupling from the transfer point and a visual check of all valves to ensure no leakage. Signs are located near the loading rack that remind drivers to disconnect all lines before leaving. Loading rack connections are capped and locked when not in use. The only loading racks on the installation are in the POL Yard (see Section 5.1), the GAF Hydrant Area (Section 5.2), and the West Hydrant Area (see Section 5.3).

Installation personnel follow the procedures specified in these documents for all product handling activities.

In general, Fuels Management Flight and tank custodian personnel follow the spill prevention procedures identified below when transferring product to or from a tanker truck:

- Load or unload in approved locations only
- Establish communications between the pumping and receiving stations
- Verify the remaining volume of the receiving container
- Properly close all drainage valves for any secondary containment
- Allow sufficient volume (approximately 10% of the total capacity) in the container for thermal expansion
- Visually inspect all valves for leakage when transfer is complete

5.0 CONTAINER AREA SPECIFIC INFORMATION

This section of the Plan provides details on the SPCC-regulated containers in each container area. A container area typically covers all the containers owned and maintained by a single shop or functional unit. A container area can be a single tank, a group of tanks, a building with several tanks nearby, or a group of buildings managed by the same organizational unit. The description for each container area has the following subsections:

1. **Area Description**: This subsection states the purpose, function, and manager of the area and generally describes the types of activities that occur in this area. It also briefly describes any additional security measures, cathodic protection systems, and other information regarding nearby containers.

2. **Product Handling**: This subsection describes how product enters and leaves the containers including a description of any associated piping or product dispensing methods. It also provides information regarding overfill protection such as alarms, automatic pump shutoffs, and sight gauges.

3. **Secondary Containment**: This subsection describes the secondary containment for each of the containers and any product handling areas such as loading racks or transfer stations. Volume calculations for diked areas appear in Appendix B.

4. **Inspection and Testing**: The table in this subsection lists the applicable inspection and testing requirements for each container. These requirements may come from military instructions or applicable industry standards. This description should include recordkeeping procedures and other general requirements associated with inspection and testing.

5. **Potential Spill Scenarios**: This subsection describes a reasonably potential spill scenario to consider for emergency planning purposes. It also refers to the navigable water that drains the area and lists any additional countermeasures employed.

Holloman AFB has the following container areas:

1. Facility 702 – POL Yard
2. Facility 72310 – GAF Hydrant
3. Facility 871 – West Hydrant Area
4. Facility 136 – GOV Refueling
5. Facility 12303 – AGE Refueling
6. Facility 33 – AAFES Gas Station
7. German Air Force
8. Facility 639 – T-38 Test Cell facility
9. Facility 15 – Medical Group
10. Facility 283 – Aero Club
11. Facility 1062 – 4th Space Control Squadron
12. Facility 1080 – 82nd Aerial Target Squadron (ATRS)
13. Facility 1079 – Army Air Division
14. Test Track – 846 Test Squadron
15. Facility 828 – 49 Maintenance Squadron (MXS)
16. BEAR Base – 49 Materiel Maintenance Group (MMG)
17. Facility 844 – West Area Vehicle Maintenance
18. Facility 11648/11649 – F-22 Hush Houses
19. Facility 304 – Fire Department Vehicle Maintenance
20. Facility 231 - Auto Skill Center
21. Facility 54 – CES Yard
22. Facility 112-DRMO
23. Emergency Generators
24. Oil/Water Separators
25. Elevators and Hydraulic Machinery
26. Fire Water Deluge Pumps
27. Electrical Transformers
28. Animal Fat and Grease Containers
29. Product Distribution Tanks

5.1 Facility 702 – POL Yard

5.1.1 Area Description

The POL Yard provides JP-8 to the hydrant refueling system from two field erected tanks, stores ground product fuels in several shop-built tanks, and operates a fleet of tanker trucks. 49 LRS/LGRF is the FMF and operates the POL Yard and the hydrant system, delivers product via R-11 and C300 tanker trucks, and performs routine maintenance.

The POL Yard is a controlled area surrounded by a security fence. A video surveillance camera covers the entrance gate and the parking area. The access gate is locked when the site is unattended. The entire yard has adequate lighting to prevent vandalism and to allow discovery of a possible spill.

An impressed current system operated by CES personnel cathodically protects the tank bottoms. Galvanic anodes cathodically protect the hydrant pipeline.

Table 5-1-1 provides details regarding the containers, and Figure 5-1-1 shows the locations of these containers and the surrounding area. Building 701 is the pumphouse control, and Building 702 houses dispatch, offices, and a truck repair garage. This figure also shows the parking area for the tanker trucks. Figure 5-1-2 shows the route of the hydrant pipeline to the GAF and West Hydrant areas.

Table 5-1-1. Facility 702 Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
702-14	AST, Vertical	630,000	Steel	1981 (Reconstructed in 2000)	JP-8
702-16	AST, Horizontal	11,000	Steel	1954	Diesel
702-18	AST, Horizontal	12,000	Steel	1943	Gasoline
702-19	AST, Horizontal	12,000	Steel	1943	Diesel
702-20	AST, Horizontal	12,000	Steel	1954	Diesel
702-22	AST, Vertical	841,179	Steel	1965 (Reconstructed in 2000)	JP-8
702-23	AST, Horizontal	12,000	Steel	1969	Diesel
702-1	AST, Vertical	396	Steel	2001	Used Oil
702-2	AST, Horizontal	750	Steel	Unknown	Diesel
R-11	Tanker Trucks	6,000 each	Steel	Various	JP-8
C300	Tanker Trucks	1,200 each	Steel	Various	Gasoline, Diesel

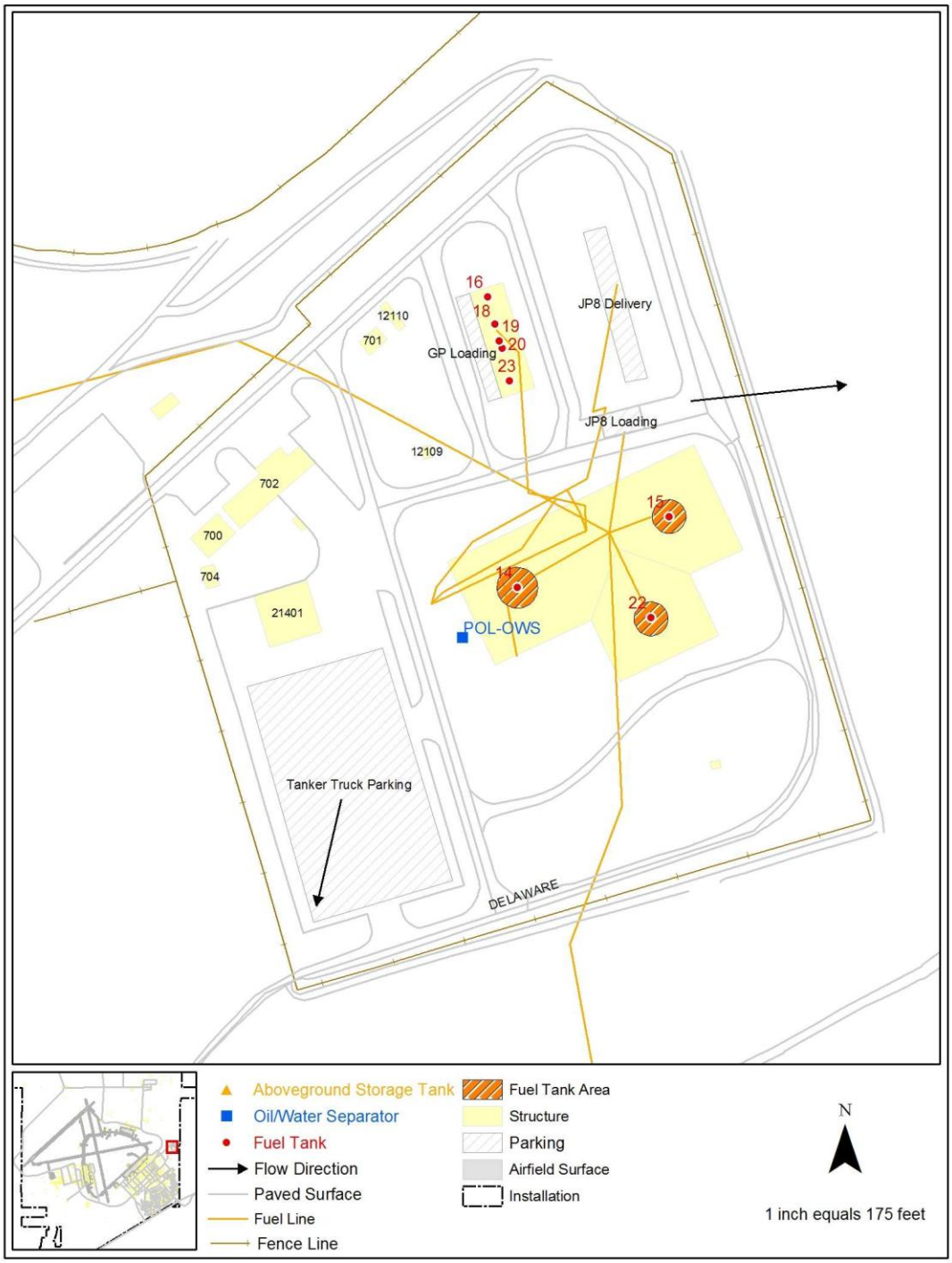


Figure 5-1-1. Facility 702 – POL Yard

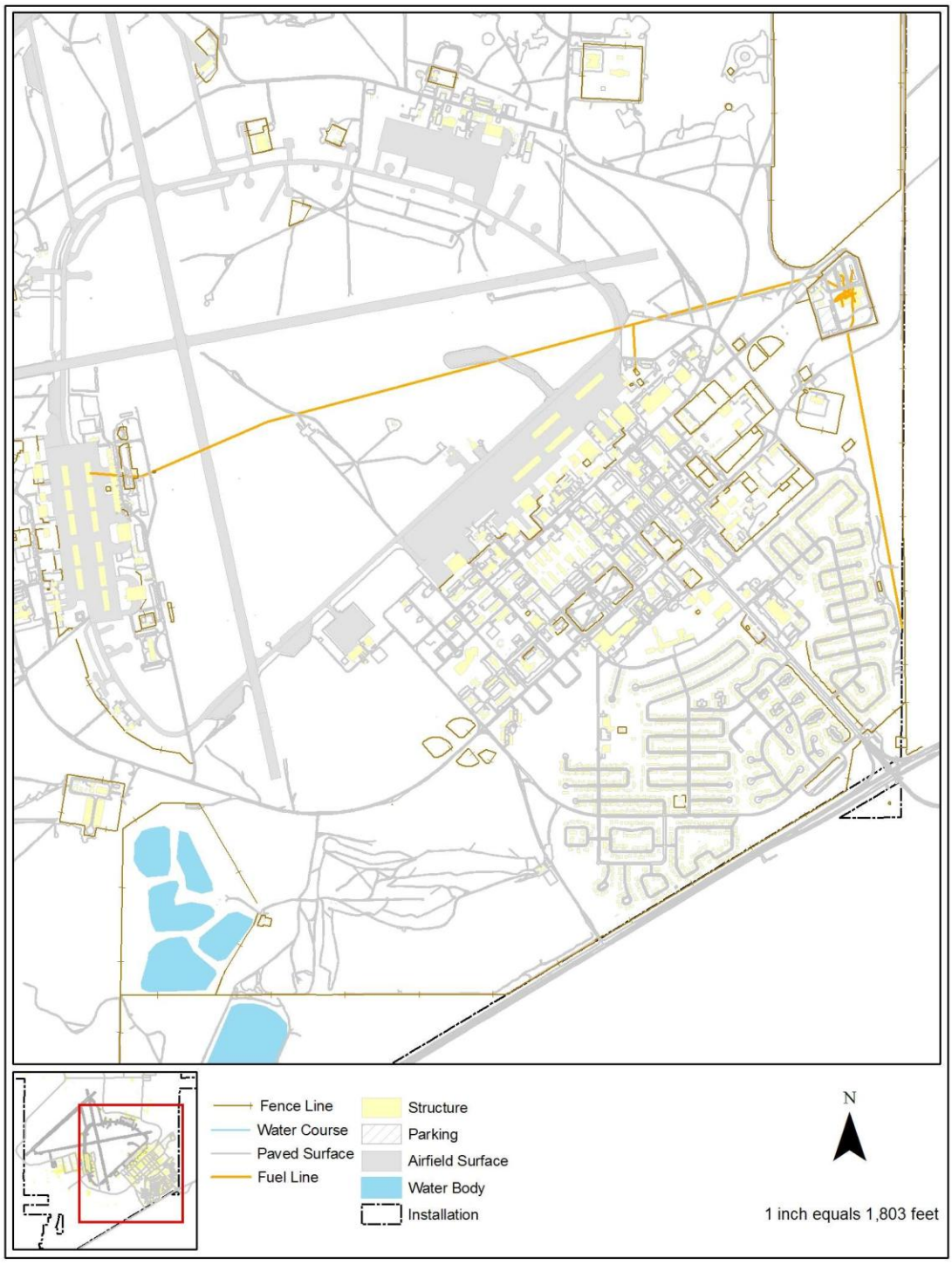


Figure 5-1-2. Facility 702 – Hydrant Pipeline

5.1.2 Product Handling

Tanks 14 and 22 receive JP-8 via the commercially operated Boles Acres pipeline. This area also has a loading rack for JP-8 delivery by commercial tanker truck. FMF personnel transfer product from Tanks 14 and 22 via the hydrant system pipeline to the GAF Hydrant Area (see Section 5.2) and to the West Hydrant Area (see Section 5.3).

FMF also delivers fuel to various organizations on base. Tank custodians from the various squadrons place a call to have fuel delivered, and FMF dispatch personnel verify that the custodian has received the required training (see Section 4.3). FMF personnel maintain nine 6,000 gallon capacity R-11 tanker trucks for delivering JP-8 and three 1,200 gallon capacity C300 tanker trucks for delivering ground products (gasoline and diesel). Trucks are loaded at either the JP-8 or Ground Products loading racks according to standard Air Force procedures (See Section 4.13). Signs are located in the loading/unloading areas that remind drivers to disconnect all lines before leaving. Loading rack connections are capped and locked when not in use.

All containers in this area including the tanker trucks have appropriate methods to prevent overfilling. All of the stationary tanks have an automatic tank gaging (ATG) system with high level alarms. The ATG system allows for computerized, central monitoring of all tank levels. Personnel verify proper operation of tanker truck level gages prior to filling.

Table 5-1-2 provides more details regarding product handling activities for this area.

Table 5-1-2. Facility 702 Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
14, 22	Pipeline, Truck	ATG with audible and visual alarms	Pipeline, Truck
16, 18, 19, 20, 23	Truck	ATG with audible and visual alarms	Truck

5.1.3 Secondary Containment

All tanks in this area are single walled and reside within diked areas. The ground products tanks sit within a concrete lined area, and the diked area for the field-erected tanks has an impermeable membrane liner floor with a concrete wall. The JP-8 offloading area (where commercial tankers deliver) has a fiberglass basin with no drainage outlet. The JP-8 fillstand (where FMF personnel load R-11's) has a concrete dike that drains to the catchment basin shown in Figure 5-1-1. The ground products loading/unloading rack also has a concrete dike that drains to the catchment basin. Personnel follow the rainwater release procedures in Section 4.8 prior to any release from the catchment basin. The diked area for the field-erected tanks drains through an oil/water separator (OWS) rated at 100 gallons per minute into the sanitary sewer (See Section 5.22). Curbing surrounds the parking area for the tanker trucks. This parking area slopes to the south corner where a locked valve controls drainage to a field.

Table 5-1-3. Facility 702 Secondary Containment

Container ID	Type	Release Mechanism
14 and 22	Dike	Manual to OWS
16, 18, 19, 20, and 23	Dike to Catchment	Manual
Ground Products Rack	Dike to Catchment	Manual
JP-8 Delivery Rack	Dike	None
JP-8 Loading Rack	Dike to Catchment	Manual
Tanker Truck Parking	Dike	Manual

5.1.4 Inspection and Testing

49 LRS/LGRF personnel follow standard Air Force procedures for daily inspection of the tanks, pumps, valves, and pipelines. **49 CES/CEOIL (Liquid Fuels Maintenance) personnel perform detailed inspections and integrity tests.** The Base cathodic protection specialist inspects the impressed current system to verify proper operation and also monitors the galvanic system protecting the hydrant pipeline. Every two years, Tracer Research Coporation uses their patented leak detection technology to test the hydrant pipeline for leaks. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

- Each group that performs maintenance keeps their own records for at least three years as required by 40 CFR § 112.7(e).

- Records of certified inspections will be maintained for the life of the container.

- Records of hydrant system pressure tests and monthly visual inspections for the field-erected tanks will be maintained for at least five years.

- Records of overfill protection system tests will be maintained for at least three years.

- Cathodic protection records will be maintained for the life of the system.

The field-erected tanks are evaluated for risk of discharge or failure due to brittle fracture if they undergo a repair, alteration, or change in service. Any brittle fracture evaluation will follow the guidelines found in API Standard 653. Note that the local soil resistivity ranges from 2,000 to 3,000 ohm-cm. Therefore, the hydrant system piping leak test required by API 570 will be performed every 10 years. The inspection and testing requirements for the containers are shown in Table 5-1-4. Personnel in this area may perform more inspections than those listed below.

Table 5-1-4. Facility 702 Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
16, 18, 19, 20, 23	External Condition and Leak Check	PE Recommendation	Visual	Monthly
16, 18, 19, 20, 23	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
16, 18, 19, 20, 23	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Quarterly
16, 18, 19, 20, 23	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
14, 16, 18, 19, 20, 22, 23	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
16, 18, 19, 20, 23	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
16, 18, 19, 20, 23	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years
14, 22	External inspection for leaks, corrosion, or foundation settlement	UFC 3-460-03, API 653	Visual	Monthly
14, 22	Inspect and clean floating roof or pan seals and roof drain	UFC 3-460-03	Visual	Monthly
Associated pumps	Check vibration and oil levels	UFC 3-460-03	Visual	Quarterly
Associated valves	Check ease of operation	UFC 3-460-03	Visual	Quarterly
Associated piping	Update identification to comply with MIL-STD-161	UFC 3-460-03	Visual	Quarterly
Aboveground piping	Inspect for corrosion	UFC 3-460-03	Visual	Semiannual

Table 5-1-4. Facility 702 Inspection and Testing (continued)

Container ID	Inspection/Test	Standard	Method	Frequency
14, 22	Inspect and clean tank vacuum and pressure vents	UFC 3-460-03	Visual	Semiannual
Dikes	Inspect and remove vegetation	UFC 3-460-03	Visual	Yearly
14, 22	Inspect and clean interior	UFC 3-460-03	Visual	8 Years
Hydrant system piping	Thickness measurement by Authorized Inspector	API 570	According to standard	10 Years
Hydrant system piping	Leak test as alternative to inspection	API 570	According to standard	10 Years
14, 22	Electronic integrity test of overfill alarm	API 2350	According to standard	24 Hours prior to Receipt
14, 22	Verify proper operation of overfill protection system	API 2350	According to standard	Yearly
14, 22	Authorized API External Inspection	API 653	Visual	5 Years
14, 22	Authorized API Internal Inspection	API 653	According to standard	10 Years
Impressed Current Cathodic Protection System	Proper operation of for protection of tank bottoms and hydrant system	API 651, NACE 0169	According to standard	Bimonthly
Impressed Current Cathodic Protection System	Check for electrical shorts, ground connections, meter accuracy, efficiency, and circuit resistance	API 651, NACE 0169	According to standard	Yearly

5.1.5 Potential Spill Scenario

A catastrophic failure of one of the large field-erected tanks could instantaneously release the entire contents and overwhelm the surrounding dike. Any spill that flowed over the dike would flow along the storm ditches to Dillard Draw.

Table 5-1-5. Facility 702 Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
14, 22	841,179	Container Failure	Ditch

5.2 Facility 72310 – German Air Force (GAF) Hydrant

5.2.1 Area Description

As described under Facility 702, the hydrant system delivers fuel to the GAF Hydrant Tanks via underground, metallic pipeline. This area consists of four identical tanks within a dike, a truck loading rack, and a pumphouse (Building 72310). Table 5-2-1 provides container details and Figure 5-2-1 shows the container locations.

Table 5-2-1. Facility 72310 – GAF Hydrant Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
24, 25, 26, 27	AST, Horizontal	25,000	Steel	1996	JP-8

5.2.2 Product Handling

These tanks are an accumulation point for the hydrant system that supplies the GAF refueling points. The hydrant pipeline brings JP-8 from the POL Yard directly into these containers, and the pumphouse increases the pressure in the pipeline to the GAF aircraft hangars when necessary. 49 LRS/LGRF personnel can also use the truck loading rack to load or unload JP-8.

These containers have an ATG system that relays product levels to personnel at the POL Yard pumphouse. Overfill protections include visual alarms, audible alarms, and automatic pump shutoff. Personnel follow standard procedures to avoid overfilling the tanker trucks during the loading process. All piping in this area is aboveground. The hydrant system is underground and has cathodic protection monitored by 49 CES personnel.

Table 5-2-2. Facility 72310 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
24, 25, 26, 27	Pipeline, Truck	ATG with audible and visual alarms	Pipeline, Truck

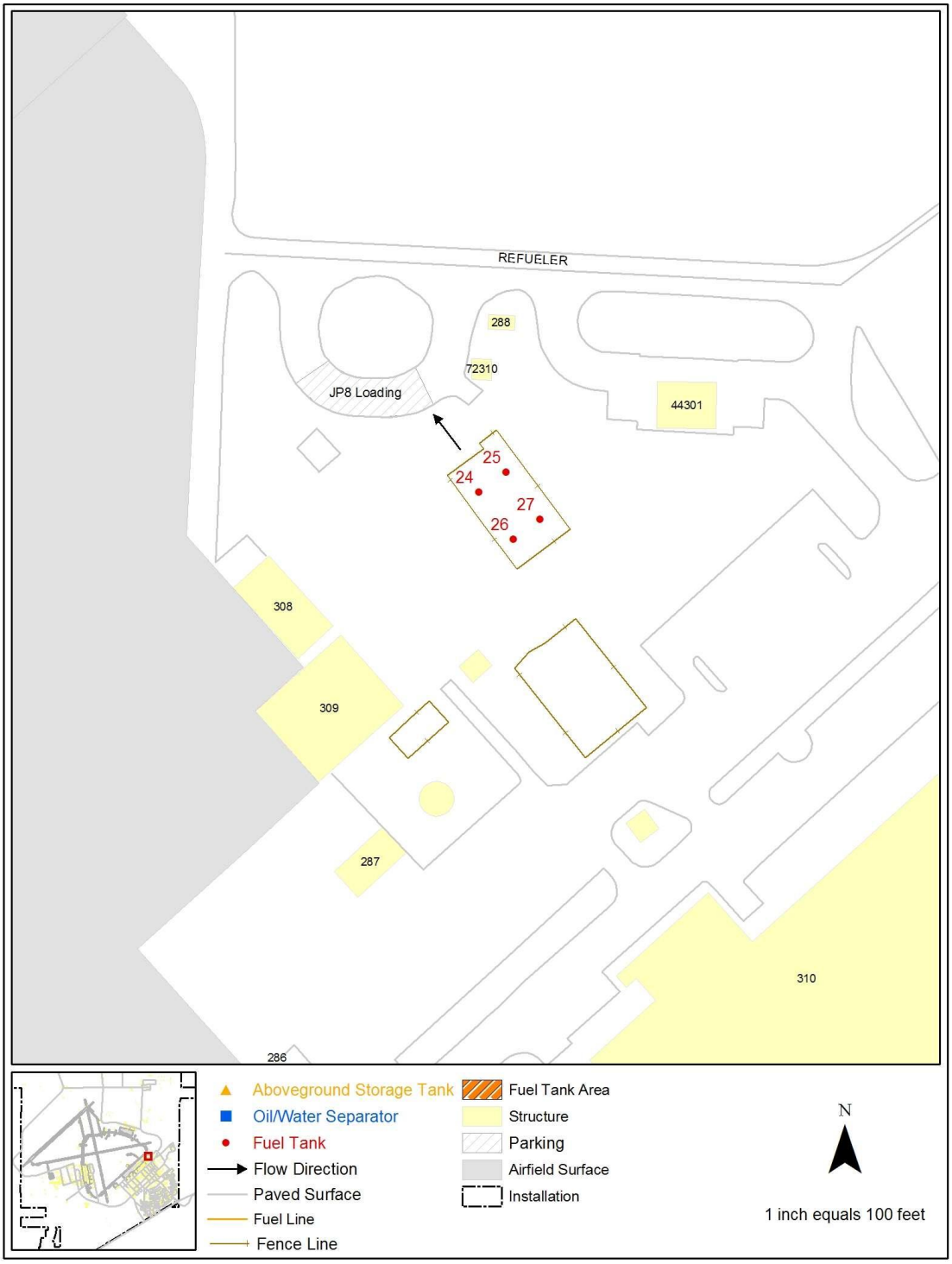


Figure 5-2-1. Facility 72310 – GAF Hydrant Tanks

5.2.3 Secondary Containment

The tanks sit within a concrete lined dike that drains freely to a catchment basin. The truck loading area is concrete lined with a curb, and it also drains freely to the catchment basin. Personnel manually activate a lift pump that pumps any collected rainwater out of the basin and into a nearby storm water ditch. Personnel follow the rainwater inspection procedures prior to any release as defined in Section 4.12. Appendix B contains volume calculations for the diked areas.

Table 5-2-3. Facility 72310 – Secondary Containment

Container ID	Type	Release Mechanism
24, 25, 26, 27	Dike to Catchment	Manual
JP-8 Loading Rack	Dike to Catchment	Manual

5.2.4 Inspection and Testing

Personnel use this area daily and perform casual visual inspections in addition to the documented inspections shown below in Table 5-2-4. **Installation personnel** maintain records of all inspections for at least three years as required by 40 CFR 112.7(e). Records of certified inspections will be maintained for the life of the container.

Table 5-2-4. Facility 72310 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
24, 25, 26, 27	External Condition and Leak Check	PE Recommendation	Visual	Monthly
24, 25, 26, 27	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
24, 25, 26, 27	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
24, 25, 26, 27	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
24, 25, 26, 27	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly

Table 5-2-4. Facility 72310 – Inspection and Testing (Continued)

Container ID	Inspection/Test	Standard	Method	Frequency
24, 25, 26, 27	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
24, 25, 26, 27	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.2.5 Potential Spill Scenario

A catastrophic failure of one of the large tanks could instantaneously release the entire contents and overwhelm the surrounding dike and catchment basin. Any spill that flowed over the dike would flow along the storm ditches toward Dillard Draw.

Table 5-2-5. Facility 72310 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
24, 25, 26, 27	25,000	Container Failure	Ditch

5.3 Facility 871 – West Hydrant Area

5.3.1 Area Description

This area is similar to the GAF Hydrant Area. It is an accumulation point for the hydrant system that serves the west area and F-22 hangars. The hydrant pipeline delivers fuel, but a loading rack provides the capability to receive JP-8 via truck. This area has four identical, 50,000-gallon, single walled tanks. Building 871 is the pumphouse control building. Table 5-3-1 provides container details and Figure 5-5-1 shows the container locations. (POL Yard records refer to containers 6, 7, 8, and 9 in this area, but Real Property records refer to containers 12401, 12402, 12403, and 12404. These are the same containers.)

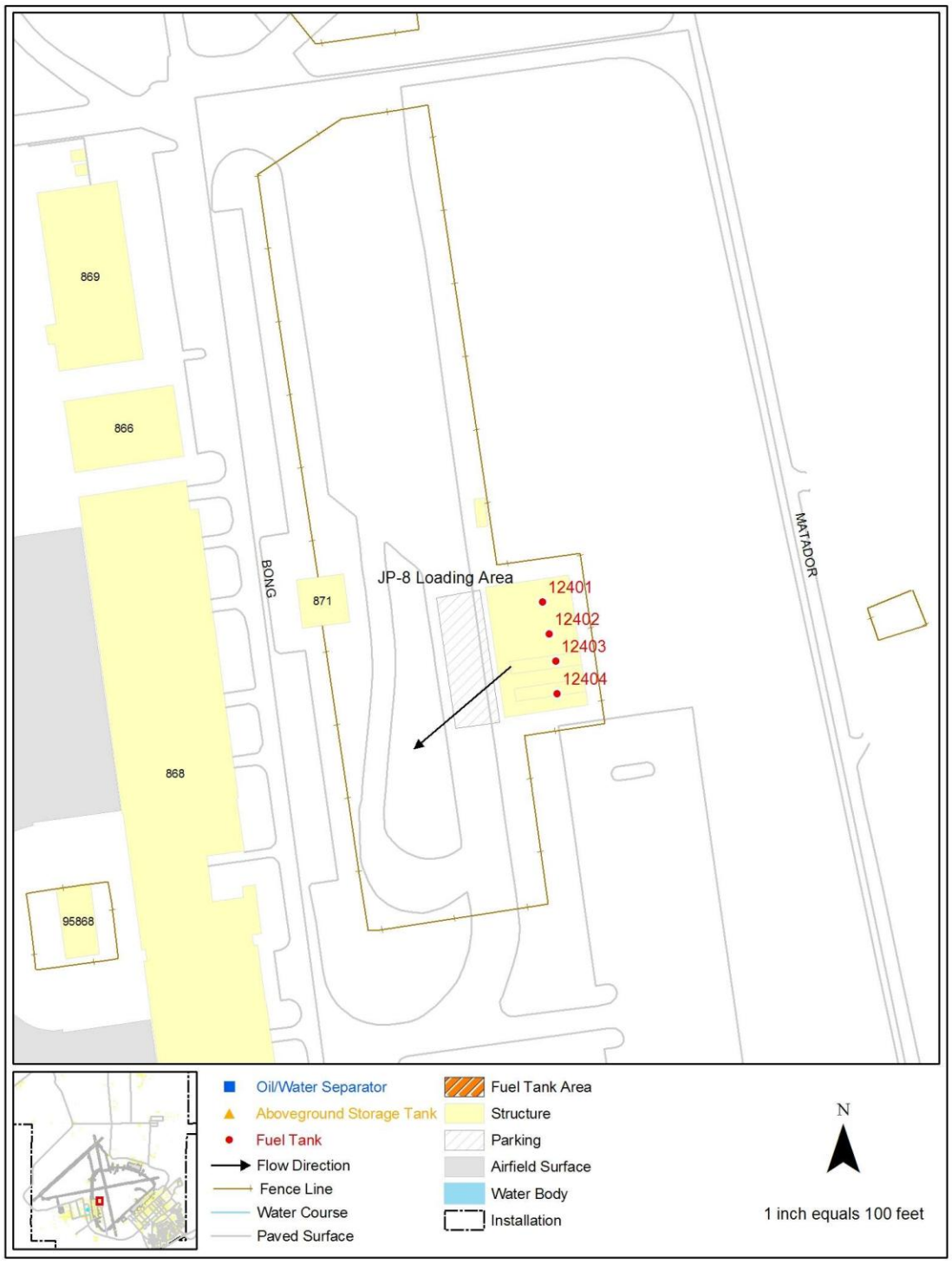


Figure 5-3-1. Facility 871 – West Hydrant Area

Table 5-3-1. Facility 871 – West Hydrant Area Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
6, 7, 8, 9	AST, Horizontal	50,000	Steel	1992	JP-8

5.3.2 Product Handling

These tanks are an accumulation point for the hydrant system that supplies the West Area refueling points. The hydrant pipeline brings JP-8 from the POL Yard directly into these containers, and the pumphouse increases the pressure in the pipeline to the West Area hangars. 49 LRS/LGRF personnel can also use the truck loading rack to load or unload JP-8 to R-11 trucks.

These container have an ATG system that relays product levels to personnel at the POL Yard and Building 871. Overfill protections include visual alarms, audible alarms, and automatic pump shutoff. Personnel follow standard procedures to avoid overfilling the tanker trucks during the loading process. All piping in this area is aboveground. The hydrant system is underground and has cathodic protection monitored by 49 CES personnel.

Table 5-3-2. Facility 871 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
6, 7, 8, 9	Pipeline, Truck	ATG with audible and visual alarms	Pipeline, Truck

5.3.3 Secondary Containment

The tanks sit within a concrete lined dike. The truck loading area is concrete lined with a curb, and it drains through a manual valve to a catchment basin. Personnel manually activate a lift pump that pumps any collected rainwater out of the basin and into a gravel-covered depression near the loading rack. Personnel follow the rainwater inspection procedures prior to any release as defined in Section 4.12. Appendix B contains volume calculations for the diked areas.

Table 5-3-3. Facility 871 – Secondary Containment

Container ID	Type	Release Mechanism
6, 7, 8, 9	Dike to Catchment	Manual
JP-8 Loading Rack	Dike to Catchment	Manual

5.3.4 Inspection and Testing

Personnel use this area daily and perform casual visual inspections in addition to the documented inspections shown below in Table 5-3-4. **Installation personnel** maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container.

Table 5-3-4. Facility 871 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
6, 7, 8, 9	External Condition and Leak Check	PE Recommendation	Visual	Monthly
6, 7, 8, 9	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
6, 7, 8, 9	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
6, 7, 8, 9	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
6, 7, 8, 9	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
6, 7, 8, 9	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
6, 7, 8, 9	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.3.5 Potential Spill Scenario

A catastrophic failure of one of the large tanks could instantaneously release the entire contents and overwhelm the surrounding dike. Any spill that flowed over the dike would flow into the storm ditches.

Table 5-3-5. Facility 871 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
6, 7, 8, 9	50,000	Container Failure	Ditch

5.4 Facility 137 – GOV Fueling

5.4.1 Area Description

Facility 137 is a Government Owned Vehicle (GOV) fueling station with dispensers for gasoline and bio-diesel.

Table 5-4-1. Facility 137 – GOV Fueling Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
137-1	AST, Horizontal	20,000	Steel	1993	Bio-Diesel
137-2	AST, Horizontal	20,000	Steel	1993	Gasoline

5.4.2 Product Handling

Commercial tanker trucks (capacity 7,500 gallons) deliver fuel to these two ASTs when requested by base personel. Overfill protection for the tanks includes an ATG with audible alarms and automatic pump shutoff. Each tank has a separate spill box for the truck connections. Piping from the truck to the tanks is aboveground, while piping from the tanks to the manually operated dispensers is underground.

Table 5-4-2. Facility 137 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
137-1, 2	Truck	ATG with audible alarms and pump shutoff	Manual Dispenser

5.4.3 Secondary Containment

The two single walled tanks sit within a concrete dike. Tank loading and fuel dispensing occur within a diked area as well. Diked area dimensions and volume calculations appear in Appendix B. Both diked areas drain through normally closed manual valves to an OWS that also serves the car wash. Section 5.24 provides details regarding this OWS. Personnel follow the rainwater release procedures in Section 4.12 prior to any release from the dikes. A spill kit is located near the dispensers.

Table 5-4-3. Facility 137 – Secondary Containment

Container ID	Type	Release Mechanism
137-1, 2	Dike	Manual to OWS
Loading and Unloading Area	Dike	Manual to OWS

5.4.4 Inspection and Testing

This facility is subject to the National Fire Protection Association (NFPA) 30A, the Automotive and Marine Service Station Code, which requires daily reconciliation of product inventory. Installation personnel satisfy this requirement by maintaining daily records of fuel dispensed and received. **Installation personnel** maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Personnel use this area daily and perform undocumented visual inspections in addition to the documented inspections shown below in Table 5-4-4. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

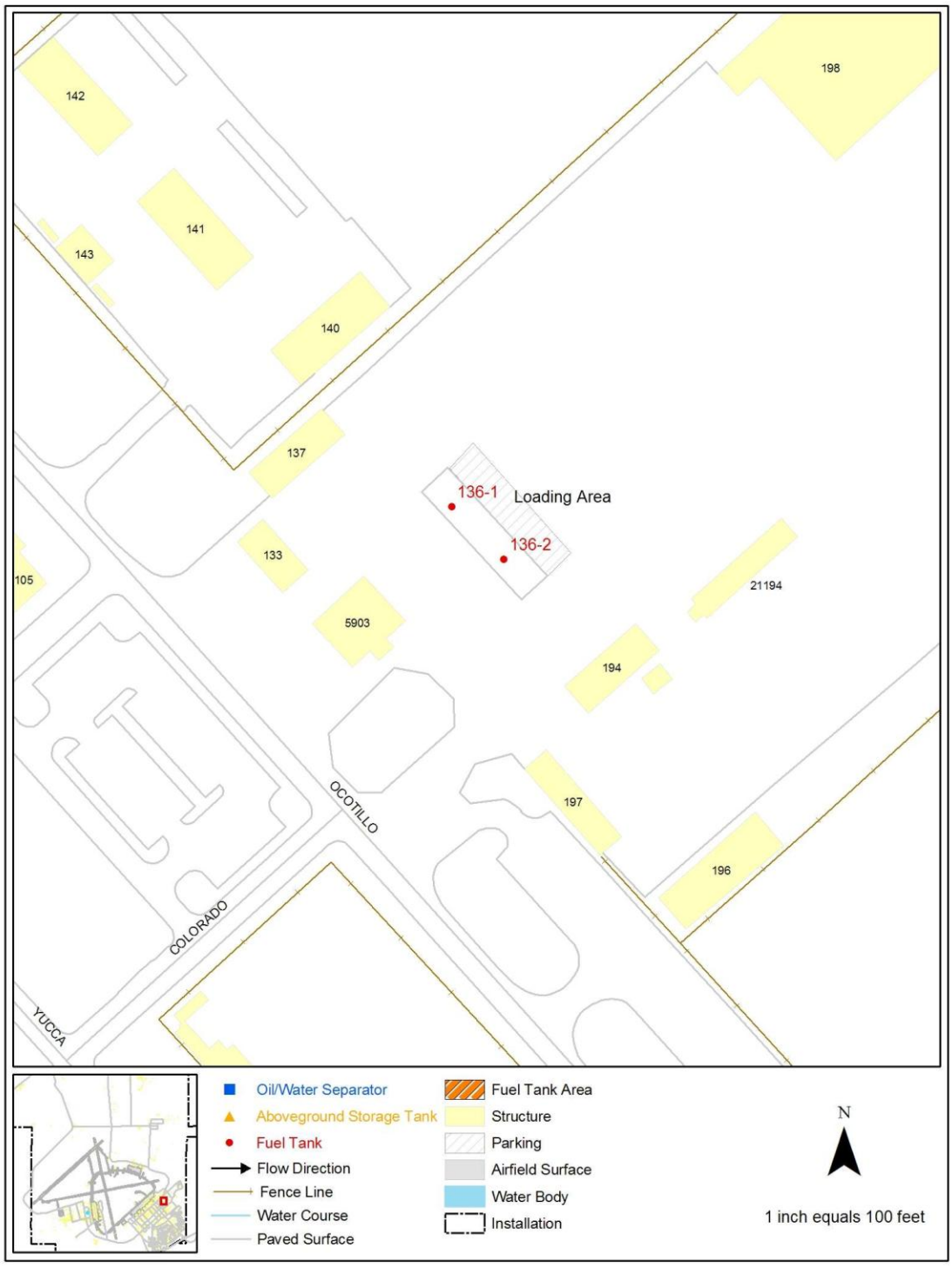


Figure 5-4-1. Facility 137 – GOV Fueling

Table 5-4-4. Facility 137 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
137-1, 2	External Condition and Leak Check	PE Recommendation	Visual	Monthly
137-1, 2	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
137-1, 2	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
137-1, 2	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
137-1, 2	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
137-1, 2	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
137-1, 2	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.4.5 Potential Spill Scenario

Any spills in this area would collect in the containment dikes. Even if a spill escaped the dike and drained to the OWS, the spill would not reach navigable waters because the OWS discharges into the sanitary sewer.

5.5 Facility 12303 – Aerospace Ground Equipment (AGE) Refueling

5.5.1 Area Description

The AGE refueling area has three double walled ASTs storing diesel, gasoline, and JP8. Table 5-5-1 provides details for the containers, and Figure 5-5-1 shows the container locations. These tanks are adjacent to building 525, Fire Department Station 1.

Table 5-5-1. Facility 12303 Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
12303-10	AST, Horizontal	1,600	Steel	1999	Diesel
12303-11	AST, Horizontal	1,600	Steel	1999	Gasoline
12303-3	AST, Horizontal	3,000	Steel	1999	JP-8

5.5.2 Product Handling

Personnel from 49 LRS/LGRF:

- Restock these tanks using the tanker trucks from the POL Yard
- Follow applicable Air Force Instructions and the general product handling guidelines in Section 4.13
- Use dipsticks to gauge product levels prior to unloading.

Each container has an individual fill pipe. The underground piping from the tanks to the dispensers is double walled.

5.5.3 Secondary Containment

All three containers in this area are double walled. Each tanker truck travels with a spill kit that is on hand during unloading.

5.5.4 Inspection and Testing

Personnel use this area daily and perform undocumented visual inspections in addition to the documented inspections shown below in Table 5-5-4. **Installation personnel** maintain records of all inspections for at least three years as required by 40

CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

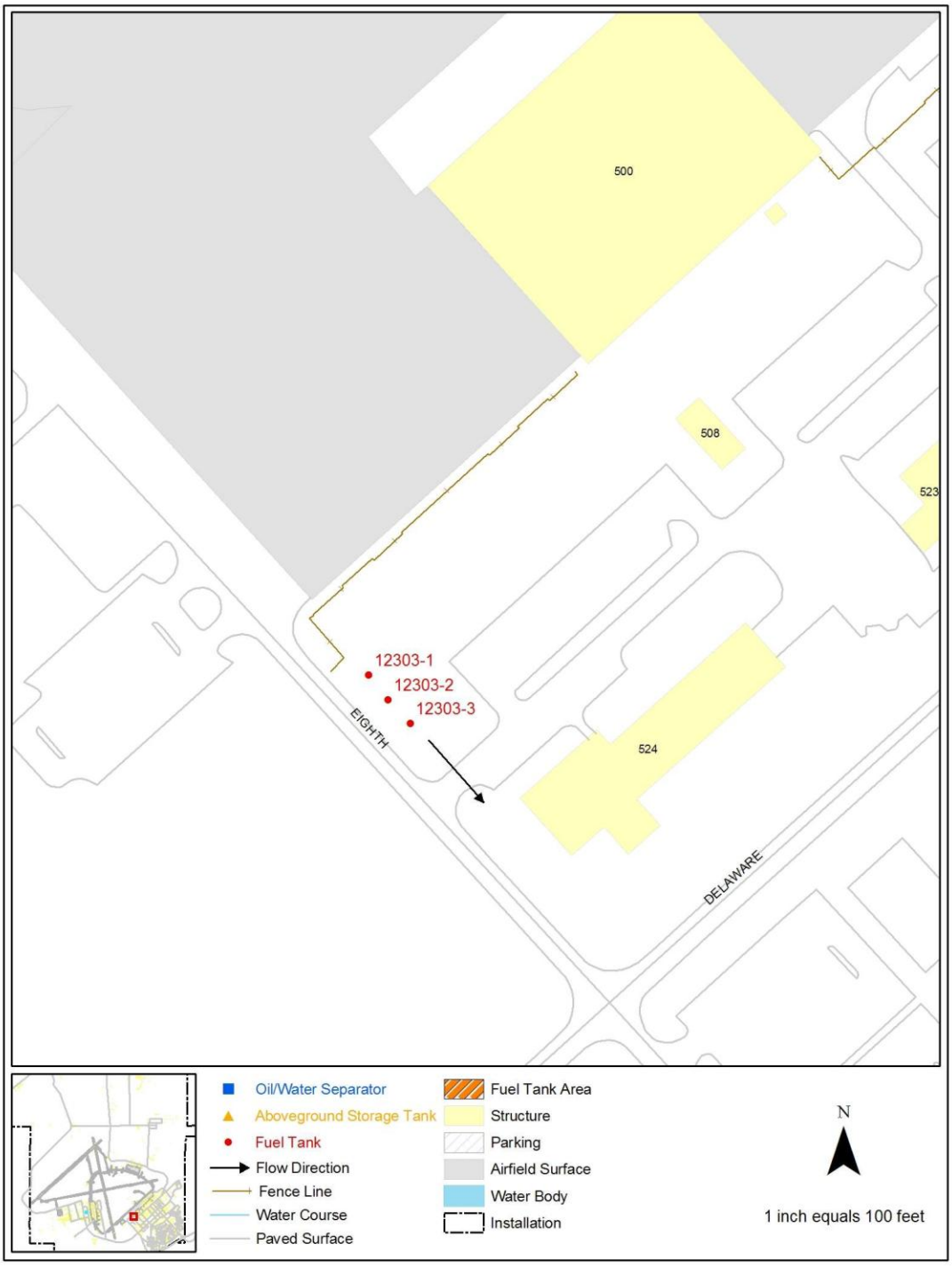


Figure 5-5-1. Facility 12303 – AGE Refueling

Table 5-5-4. Facility 12303 Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
12303-3,10,11	External Condition and Leak Check	PE Recommendation	Visual	Monthly
12303-3,10,11	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
12303-3,10,11	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
12303-3,10,11	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
12303-3,10,11	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
12303-3,10,11	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
12303-3,10,11	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.5.5 Potential Spill Scenario

A worst case spill in this area would result from a failure during product unloading. The loss of the entire contents of an R-11 Tank Truck would spill 6,000 gallons onto the concrete pad in front of the containers.

Table 5-5-5. Facility 12303 Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
Tanker Truck	6,000	Truck Unloading Error	Concrete Pad to Field

5.6 Facility 33 – AAFES Gas Station

5.6.1 Area Description

The Army and Air Force Exchange Service (AAFES) commercial gasoline station is located at 744 First Street. This area includes ASTs for gasoline, typical fuel dispensers, a convenience store, a tank truck unloading area, and a used oil tank. AAFES personnel manage the grease vat associated with the fast food restaurant according to the mobile and portable container policy in Section 4.10. Table 5-6-1 provides details regarding the containers and Figure 5-6-1 shows their locations.

Table 5-6-1. Facility 33 Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
33-1, 2, 3	AST, Horizontal	12,000	Steel	2000	Gasoline
33-4	AST, Vertical	250	Steel	UNKN	Used Oil
33-5	AST, Vertical	165	Steel	2001	New Motor Oil

5.6.2 Product Handling

Commercial tanker trucks deliver gasoline to the large ASTs. Prior to filling the tanks through standard spillboxes with drybreak connectors, personnel use the ATG system to confirm the tank ullage. The ATG slows product transfer and stops the pump completely as the tank level rises. Aboveground piping connects the spill boxes to the tanks while below ground piping connects the tanks to the dispensers.

A contracted service maintains the bulk motor oil tank and used oil tank. A commercial truck fills the bulk oil tank when requested. A similar service provider empties the used oil container.

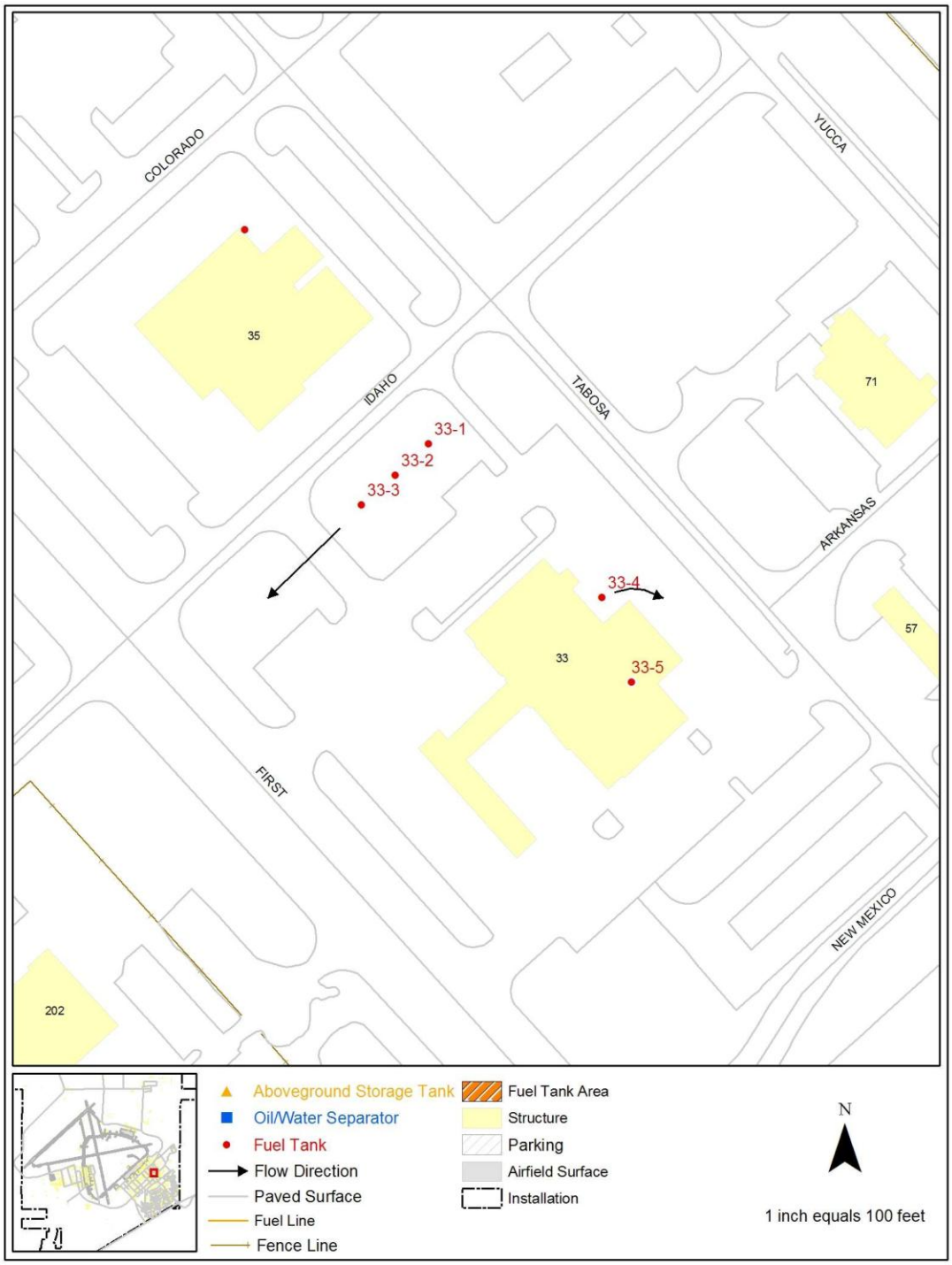


Figure 5-6-1. Facility 33 – AAFES Gas Station

Table 5-6-2. Facility 33 Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
33-1, 2, 3	Truck	ATG with pump cutoff	Manual Dispenser
33-4	Manual	Visual	Vacuum Truck
33-5	Truck	Visual	Manual

5.6.3 Secondary Containment

The large, double-walled gasoline ASTs sit within a concrete dike with a locking manually operated drain valve. The building provides secondary containment for the bulk oil tank in the maintenance shop. The used oil tank is double-walled. Personnel follow the rainwater release procedures in Section 4.9 prior to any release from the dikes. A spill kit is located in the maintenance shop.

Table 5-6-3. Facility 33 Secondary Containment

Container ID	Type	Release Mechanism
33-1, 2, 3	Dike and Double Walled	Manual
33-4	Double Walled	None
33-5	Building	None

5.6.4 Inspection and Testing

This facility is subject to NFPA 30A, the Automotive and Marine Service Station Code, which requires daily reconciliation of product inventory. AAFES personnel satisfy this requirement by maintaining daily records of fuel dispensed and received. **Installation personnel** maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-6-4 shows the inspection and testing requirements.

Table 5-6-4. Facility 33 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
33-1, 2, 3, 4, 5	External Condition and Leak Check	PE Recommendation	Visual	Monthly
33-1, 2, 3	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
33-1, 2, 3	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
33-1, 2, 3	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
33-1, 2, 3	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
33-1, 2, 3	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
33-1, 2, 3	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
33-1, 2, 3, 4, 5	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.6.5 Potential Spill Scenario

A catastrophic failure of one of the large gasoline tanks could instantaneously release the entire contents and overwhelm the surrounding dike. Any spill that flowed over the dike would flow along the storm ditches toward Dillard Draw.

Table 5-6-5. Facility 33 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
33-1, 2, 3	12,000	Container Failure	Ditch to Arroyo

5.7 German Air Force

5.7.1 Area Description

One of the larger tenants at Hollman AFB is the German Air Force (GAF). The GAF trains pilots and provides maintenance to a fleet of Tornado aircraft. Also, they own and maintain several office buildings, hangars, and AGE maintenance shops in the Main Area of the flightline. The GAF SPCC-regulated containers include drums, used oil containers, portable equipment with large hydraulic reservoirs, and storage tanks. GAF personnel follow the Holloman mobile and portable container policy as found in Section 4.10. 49 CES/CEAN still maintains all OWS located within the GAF area (see Section 5.24).

The used oil tanks are identical. Table 5-7-1 provides details for the stationary containers, and Figure 5-7-1 shows the container locations.

Table 5-7-1. GAF Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
286-1	AST, Horizontal	530	Steel	2008	Used Oil
295-1	AST, Vertical	385	Polyethylene	2001	Used Oil
45314-1	AST, Vertical	385	Polyethylene	2000	Used Oil

5.7.2 Product Handling

GAF personnel manually empty 5-gallon buckets of used oil into 30-gallon cans. When required, they activate a pump that transfers the used oil from the 30-gallon can through aboveground piping into the polyethylene tank outdoors. A contracted vacuum truck removes the used oil from the large outdoor container when requested.

Table 5-7-2. GAF – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
286, 295, 45314-1	Piping	Visual	Vacuum Truck

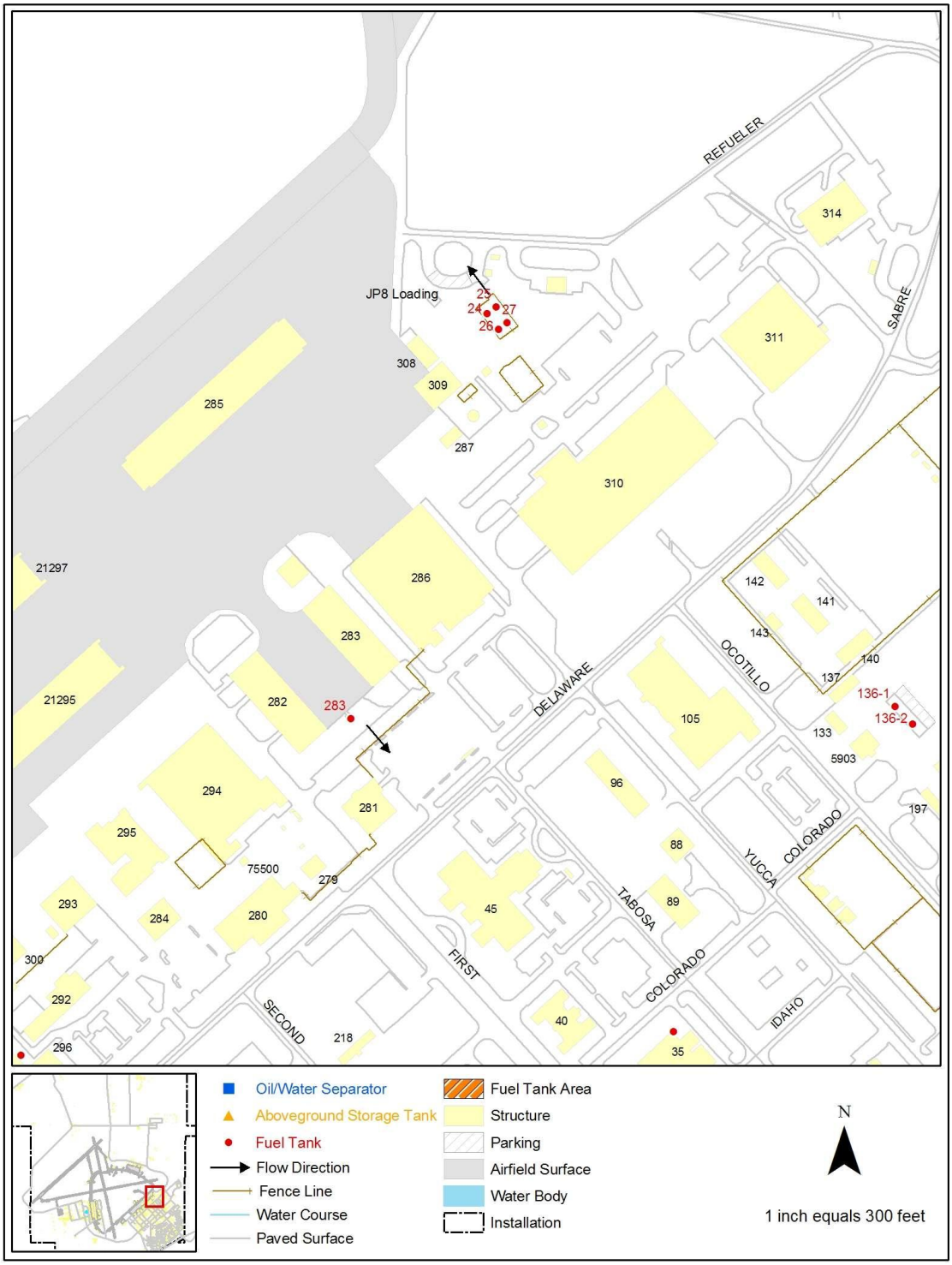


Figure 5-7-1. German Air Force

5.7.3 Secondary Containment

All of the used oil containers and the unused diesel tank are double-walled. Personnel maintain spill kits in all the shop areas.

Table 5-7-3. GAF – Secondary Containment

Container ID	Type	Release Mechanism
286-1, 295-1, 45314-1	Double Walled	None

5.7.4 Inspection and Testing

GAF personnel will maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-7-4. GAF – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
286, 295, 45314-1	External Condition and Leak Check	PE Recommendation	Visual	Monthly

The polyethylene used oil containers are not subject to any industry standard that requires inspection and testing. However, monthly inspections are recommended.

5.7.5 Potential Spill Scenario

Container 45314-2 is a 2,000 gallon capacity double-walled tank that is empty and has never been used. A worst case spill for this area would involve an unloading accident from a commercial tanker truck deliverying product to the diesel tank if ever used. If a problem occurred during tank loading, possibly 6,000 gallons could flow into the storm water system.

Table 5-7-5. GAF – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
45314-2	6,000	Truck Unloading	Ditch

5.8 Facility 639 – T-38 Test Cell

5.8.1 Area Description

The Consolidated Aircraft Maintenance Contractor operates the T-38 engine test cell facility. This facility has the capability to mount two single engines within the test cell. A single JP-8 tank provides fuel to the test cell. Figure 5-8-1 shows the storage container locations, and Table 5-8-1 provides details about the containers.

Table 5-8-1. Facility 639 – Container

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
639	AST, Horizontal	5,000	Steel	1978	JP-8

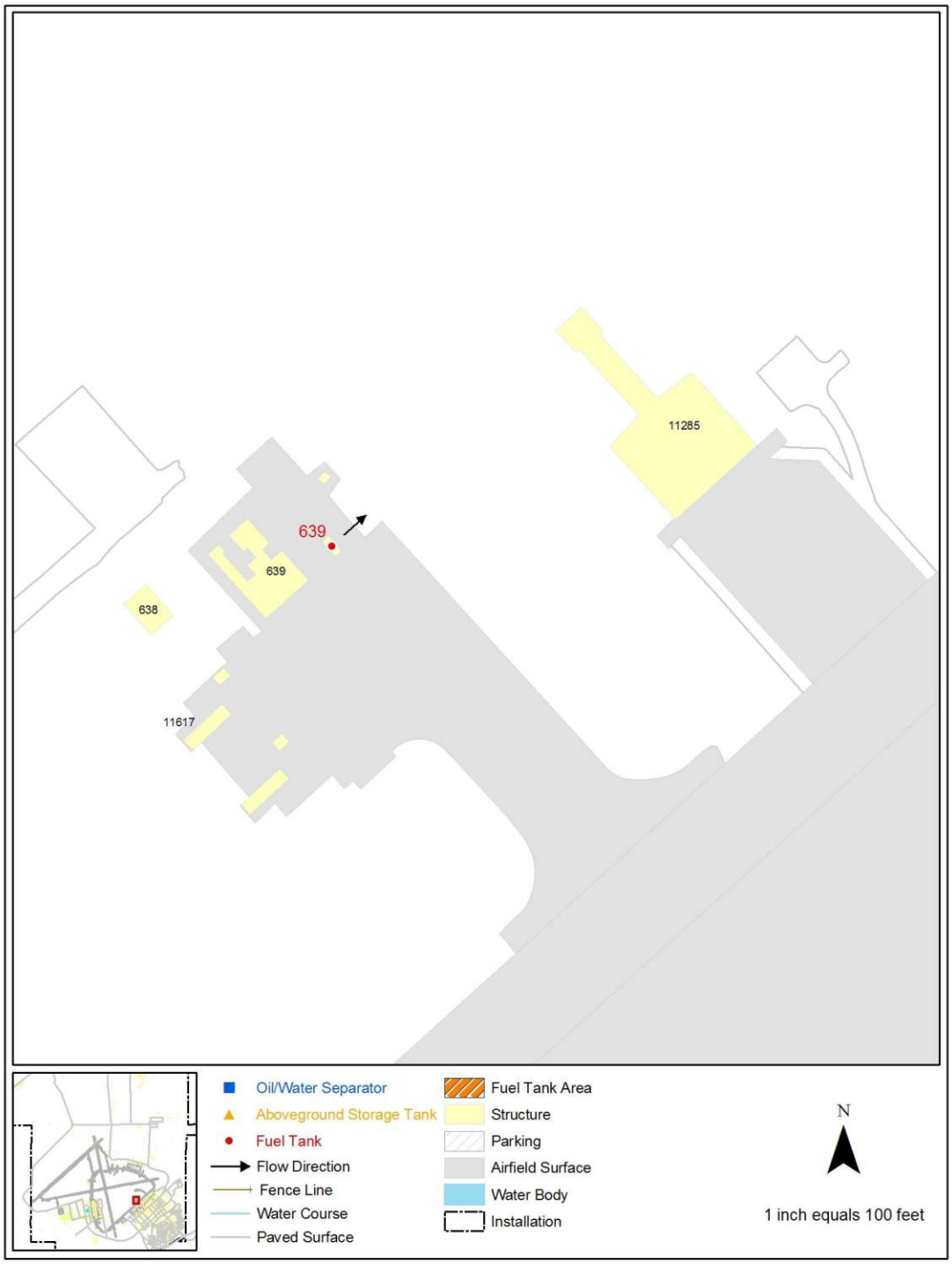


Figure 5-8-1. Facility 639 – T-38 Test Cell

5.8.2 Product Handling

Personnel from the POL Yard refill this container using an R-11 tanker truck when requested and follow the product handling procedures in Section 4.13. Aboveground piping transfers product from this container to the engines inside the Test Cell.

Table 5-8-2. Facility 639 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
639	Truck	Visual	Piping Transfer

5.8.3 Secondary Containment

The single-walled container sits within a concrete dike that drains through a normally closed and locked, manually operated valve to the storm water ditch. Personnel follow the rainwater release procedures in Section 4.9 prior to any release from the diked area. Appendix B contains the volume calculations in the diked area. Personnel also keep a spill kit inside the Test Cell.

Table 5-8-3. Facility 639 – Secondary Containment

Container ID	Type	Release Mechanism
639	Dike	Manual Valve

5.8.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-8-4. Facility 639 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
639	External Condition and Leak Check	PE Recommendation	Visual	Monthly
639	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly

Table 5-8-4. Facility 639 – Inspection and Testing (continued)

Container ID	Inspection/Test	Standard	Method	Frequency
639	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
639	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
639	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
639	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.8.5 Potential Spill Scenario

The worst case spill for this area would involve the refueling truck. If an equipment failure occurred during tank loading, possibly 6,000 gallons of JP-8 could flow into the storm water system.

Table 5-8-5. Facility 639 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
639	6,000	Truck Unloading Error	Concrete apron to Ditch

5.9 Facility 15 – Medical Group

5.9.1 Area Description

The only SPCC-regulated container at the Medical Group supplies diesel fuel to the emergency generator. A contractor maintains this container. Table 5-9-1 shows the container details and Figure 5-9-1 shows the tank location.

Table 5-9-1. Facility 15 – Container

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
15-1	AST, Horizontal	3,880	Steel	1967	Diesel

5.9.2 Product Handling

A commercial tanker truck delivers fuel when required. Spill kits are nearby during the loading process. Single-walled underground piping transfers product from the tank to the generator. This container has a visual gauge that indicates fuel level.

Table 5-9-2. Facility 15 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
15-1	Truck	Visual	Piping

5.9.3 Secondary Containment

The single walled diesel tank seats within a concrete dike.

Table 5-9-3. Facility 15 – Secondary Containment

Container ID	Type	Release Mechanism
15-1	Single Walled	None

5.9.4 Inspection and Testing

Area personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

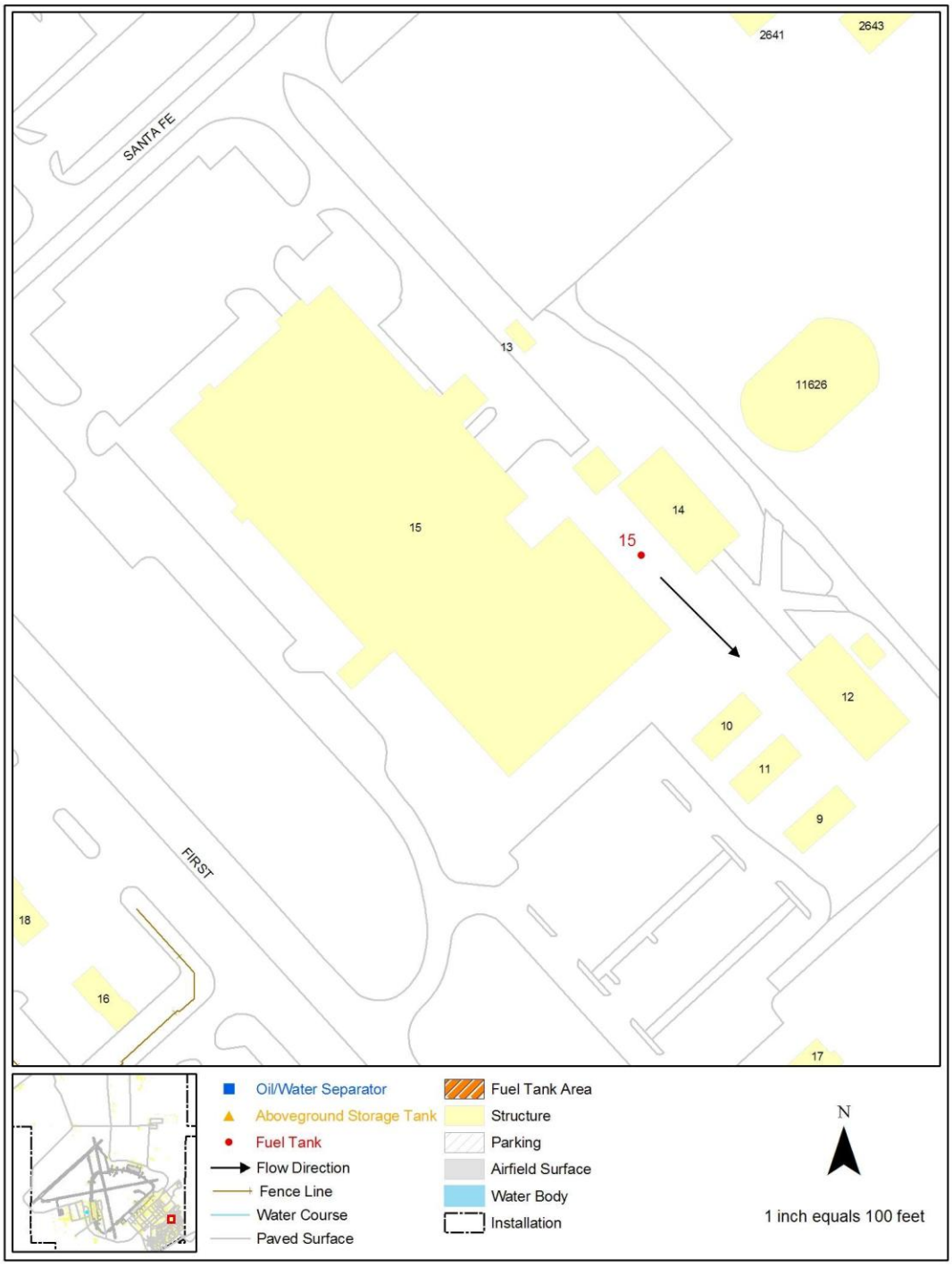


Figure 5-9-1. Facility 15 – Hospital

Table 5-9-4. Facility 15 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
15-1	External Condition and Leak Check	PE Recommendation	Visual	Monthly
15-1	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
15-1	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
15-1	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
15-1	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
15-1	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
15-1	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.9.5 Potential Spill Scenario

The worst case spill for this area would involve an unloading accident from a commercial tanker truck. If a problem occurred during tank loading, possibly 7,500 gallons could flow into the storm water system.

Table 5-9-5. Facility 15 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
15-1	7,500	Truck Unloading	Pavement to Ditch

5.10 Facility 283 – Aero Club

5.10.1 Area Description

The Holloman Aero Club maintains several propeller driven aircraft for club members. Members refuel these planes with Aviation Gasoline (AvGas) when necessary from a 3,000 gallon double-walled tank located near Building 283. This group also owns a permanently closed, 6,000-gallon single-walled tank near Building 304. The details for the small AST are in Table 5-10-1, and Figure 5-10-1 shows the tank location.

Table 5-10-1. Facility 283 – Aero Club Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
283	AST, Horizontal	3,000	Steel	2000	JP-8

5.10.2 Product Handling

A commercial tanker truck delivers product to this container when requested by club management. Personnel gauge the tank level with a dipstick prior to loading. Piping to the manually operated product dispenser is aboveground.

Table 5-10-2. Facility 283 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
283	Truck	Visual	Manual Dispenser

5.10.3 Secondary Containment

The double-walled tank, all piping, and the dispenser sit on a concrete pad with a 4 inch high curb. The curbed area does not have a drain valve. Volume calculations are found in Appendix B.

Table 5-10-3. Facility 283 – Secondary Containment

Container ID	Type	Release Mechanism
283	Double-walled, Dike	None

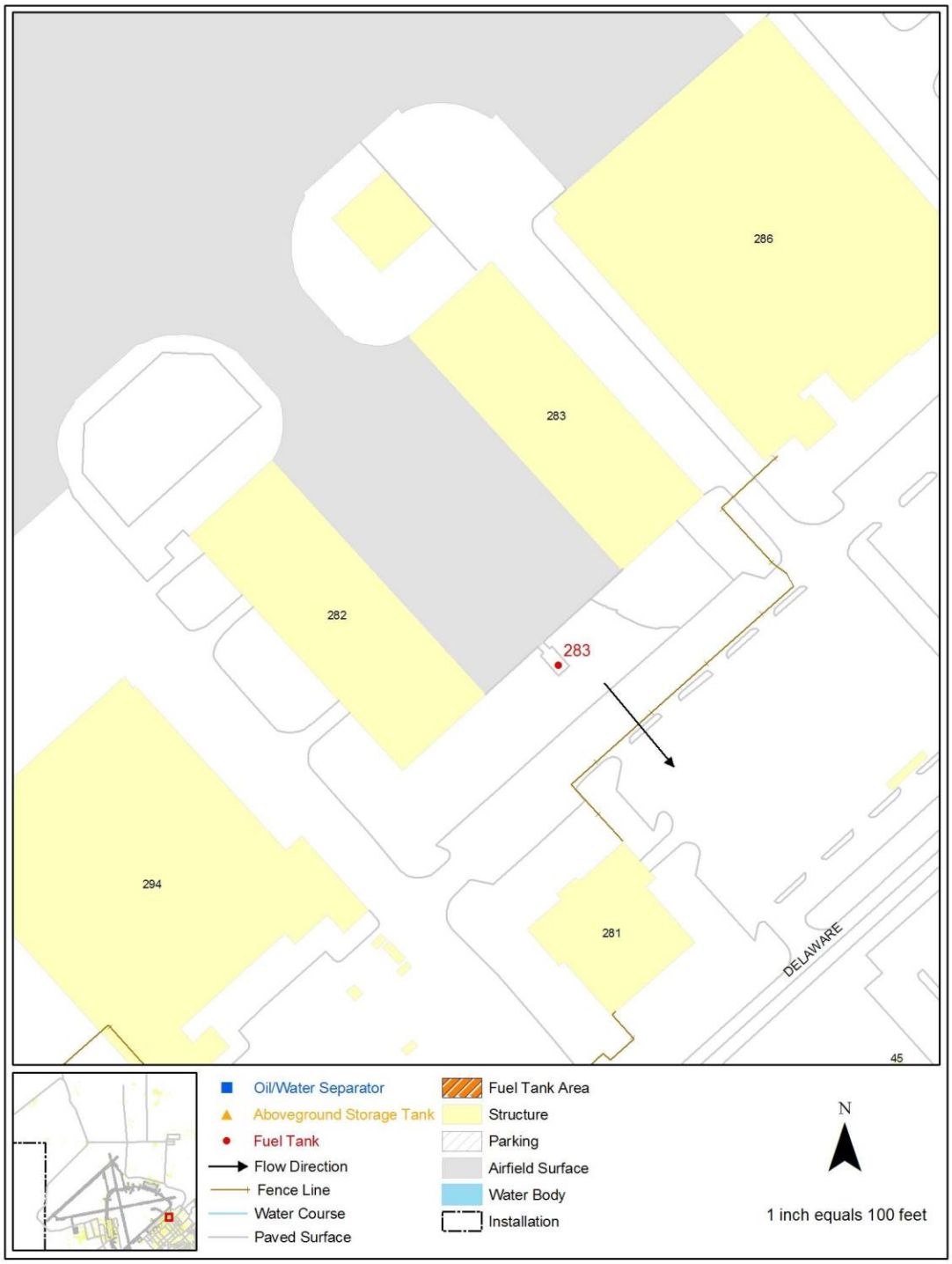


Figure 5-10-1. Facility 283 – Aero Club

5.10.4 Inspection and Testing

Aero Club personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-10-4. Facility 283 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
283	External Condition and Leak Check	PE Recommendation	Visual	Monthly
283	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
283	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
283	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
283	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
283	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
283	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.10.5 Potential Spill Scenario

The worst case spill for this area would involve an equipment failure on the refueling truck. If a problem occurred during tank loading, possibly 2,000 gallons of AvGas could flow into the storm water system.

Table 5-10-5. Facility 283 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
283	2,000	Truck Unloading Error	Concrete apron to Ditch

5.11 Facility 1061 and 1062– 4th Space Control Squadron (4th SPCS)

5.11.1 Area Description

The 4th SPCS compound has several buildings within a separate, high security zone of the base. Personnel in this area refuel portable containers for generators and perform light vehicle maintenance. There are stationary emergency generators near the front security gate (see Section 5.23) and towards the back of the facility. There is also an OWS (see Section 5.24) that drains the washrack and vehicle maintenance bay.

The squadron also has a C300 tanker truck used to refuel their portable generators. Personnel manage the portable generator tanks and several drums in accordance with the mobile and portable container policy in Section 4.10. Table 5-11-1 lists details for the containers and Figure 5-11-1 shows the tank locations.

Table 5-11-1. Facility 1061 and 1062– 4th SPCS Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
1061	AST, Horizontal	500	Steel	Unknown	Diesel
1062	AST, Horizontal	600	Steel	2007	Diesel
C300	Tanker Truck	2,500	Steel	UNK	Diesel

5.11.2 Product Handling

Truck unloading follows the standard operating procedures listed in Section 4.13 and relied on visual observation to prevent overfilling. Personnel used the dispenser island next to the tank to refuel vehicles.

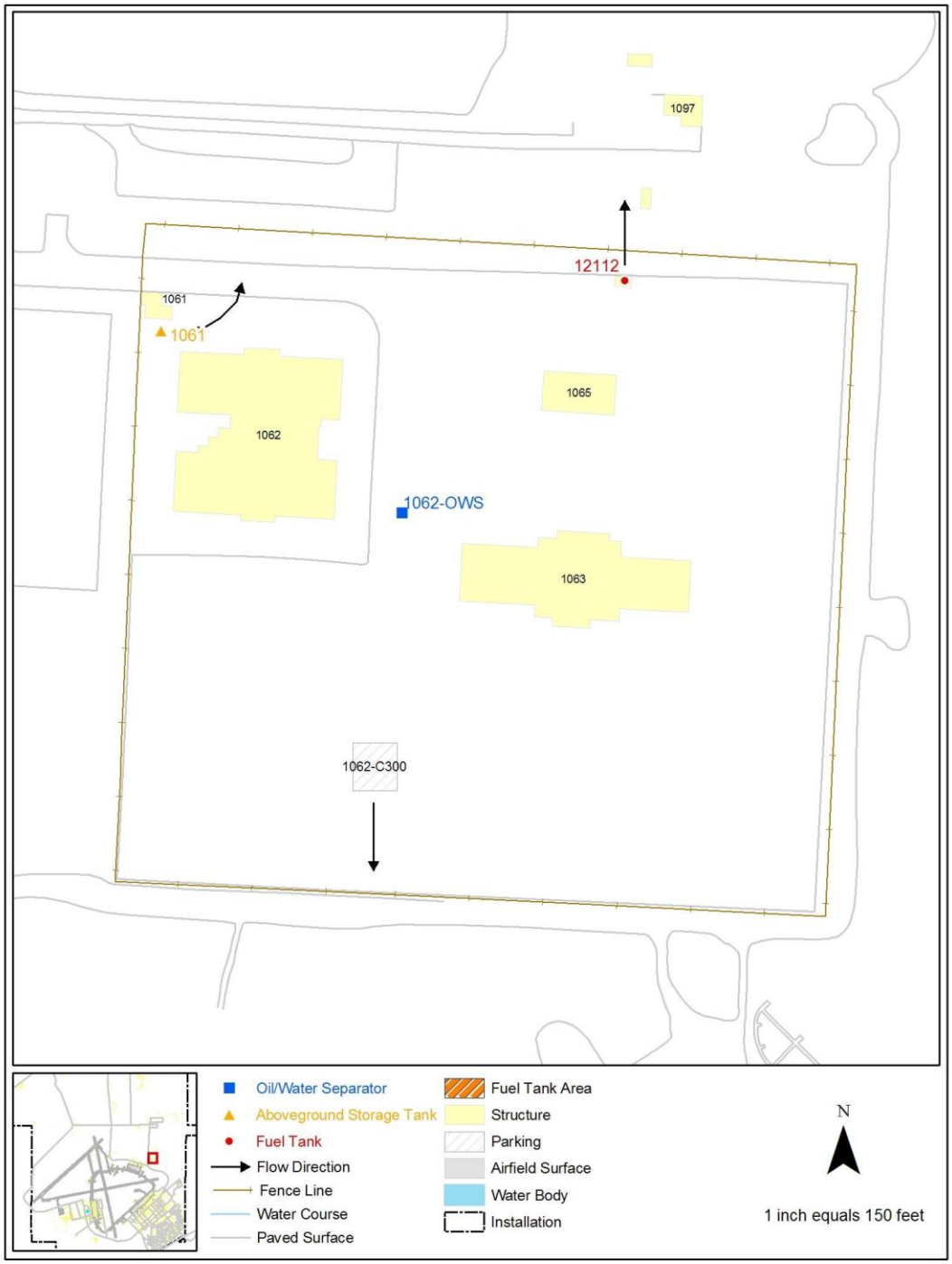


Figure 5-11-1. Facility 1061 and 1062 – 4th SPCS

Personnel drive the C300 to the generator parking area to refuel those containers using the attached dispensing hose. They also drive the C300 to the POL Yard Ground Products loading rack when it requires refilling.

Table 5-11-2. Facility 1061 and 1062 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
1061	Truck	Visual	Piping
1062	Truck	Visual	Piping
C300	Loading Rack	Visual	Manual Dispenser

5.11.3 Secondary Containment

The C300 is normally parked on a concrete pad with a 4 inch curb. This parking pad freely drains south to a gravel covered area.

Table 5-11-3. Facility 1061 and 1062 – Secondary Containment

Container ID	Type	Release Mechanism
1061	Double Walled	None
1062	Double Walled	None
C300 Parking	Dike	Free

5.11.4 Inspection and Testing

Personnel perform inspections and tests on the C300 tanker as required by applicable AFIs (see Section 4.3).

Area personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections are maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-11-4. Facility 1061 and 1062 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
1061 and 1062	External Condition and Leak Check	PE Recommendation	Visual	Monthly
1061 and 1062	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
1061 and 1062	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
1061 and 1062	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
1061 and 1062	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
1061 and 1062	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.11.5 Potential Spill Scenario

The most likely spill scenario for this area involves an equipment failure in the C300 while loading product into an emergency generator. Such a scenario might release 1,200 gallons that would flow to the storm drains and Dillard Draw.

Table 5-11-5. Facility 1061 and 1062 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
C300 Tanker	1,200	Truck Unloading Error	Field to Dillard Draw

5.12 Facility 1080 – 82nd Aerial Target Squadron (ATRS)

5.12.1 Area Description

The 82nd ATRS operates the F-4 drone program and maintains the full-size drone aircraft. Personnel in this area refuel their AGE from three 600-gallon bowsers. This area has two OWS maintained by 49 CES/CEAN (see Section 5.24 for details). This squadron also manages several drums according to the mobile and portable container policy in Section 4.9. Table 5-12-1 provides details for the containers, and Figure 5-12-1 shows the container locations. These three bowsers are located in two connected diked areas. Appendix B contains volume calculations for the diked area.

5.12.2 Product Handling

These containers have no associated piping. Overfill protection is by visual inspection only.

5.12.3 Secondary Containment

The dike has a manually operated, normally locked drain valve. Personnel follow the rainwater release procedures.

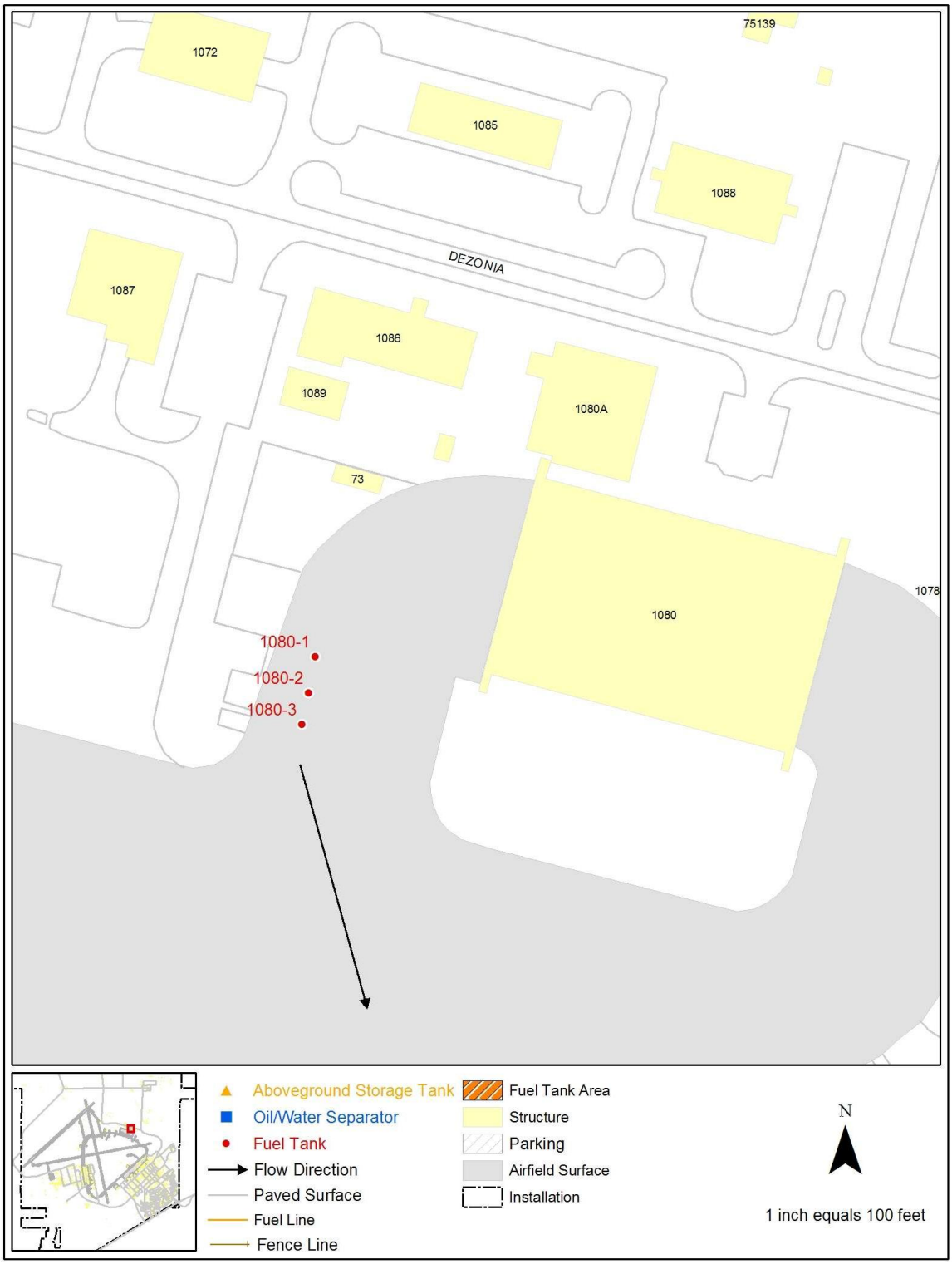


Figure 5-12-1. Facility 1080 – 82nd ATRS

5.12.4 Inspection and Testing

These containers are not specifically addressed by any industry standard. Therefore, only monthly visual inspections are recommended.

Table 5-12.1 Facility 1080 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
1080-1, 2, 3	External Condition and Leak Check	PE Recommendation	Visual	Monthly

5.12.5 Potential Spill Scenario

The worst case spill for this area would involve an unloading accident from an R-11 tanker truck. If a problem occurred during tank loading, possibly 6,000 gallons of JP-8 could flow onto the concrete pad surrounding the tanks. Eventually, the spill would pool in a depression south of the hangar and not reach navigable waters.

Table 5-12-2. Facility 1080 – Potential Spill Scenario

Container ID	Spill Amount (Gallons)	Cause	Pathway
Tanker Truck	6,000	Operator Error	Pavement to Swale

5.13 Facility 1079 – Army Air Division

5.13.1 Area Description

The Army Air Division (AAD) is a civil service organization that pilots helicopters and performs intermediate level maintenance on their aircraft to support activities at White Sands Missile Range. Besides a used oil tank, this organization has a 250 gallon capacity double-walled mobile container used to store the reclaimed JP-8 fuel, and a service cart with an 80 gallon capacity double-walled tank that they fill will regular gas at the POL Yard as needed to effect daily maintenance. Table 5-13-1 provides details for the used oil tank, and Figure 5-13-1 shows the container location.

Table 5-13-1. Facility 1079 – Army Air Division Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
1079-1	AST, Vertical	528	Steel	1988	Used Oil

5.13.2 Product Handling

Shop users place the used oil in a reservoir that is connected to a double-walled tank located outside the facility. A pump transfers the used oil through aboveground piping into the outdoor container. The system also has an automatic pump shutoff mechanism to prevent overfilling. A contractor empties the large container with a vacuum truck when requested.

Table 5-13-2. Facility 1079 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
1079-1	Manual	Visual	Truck

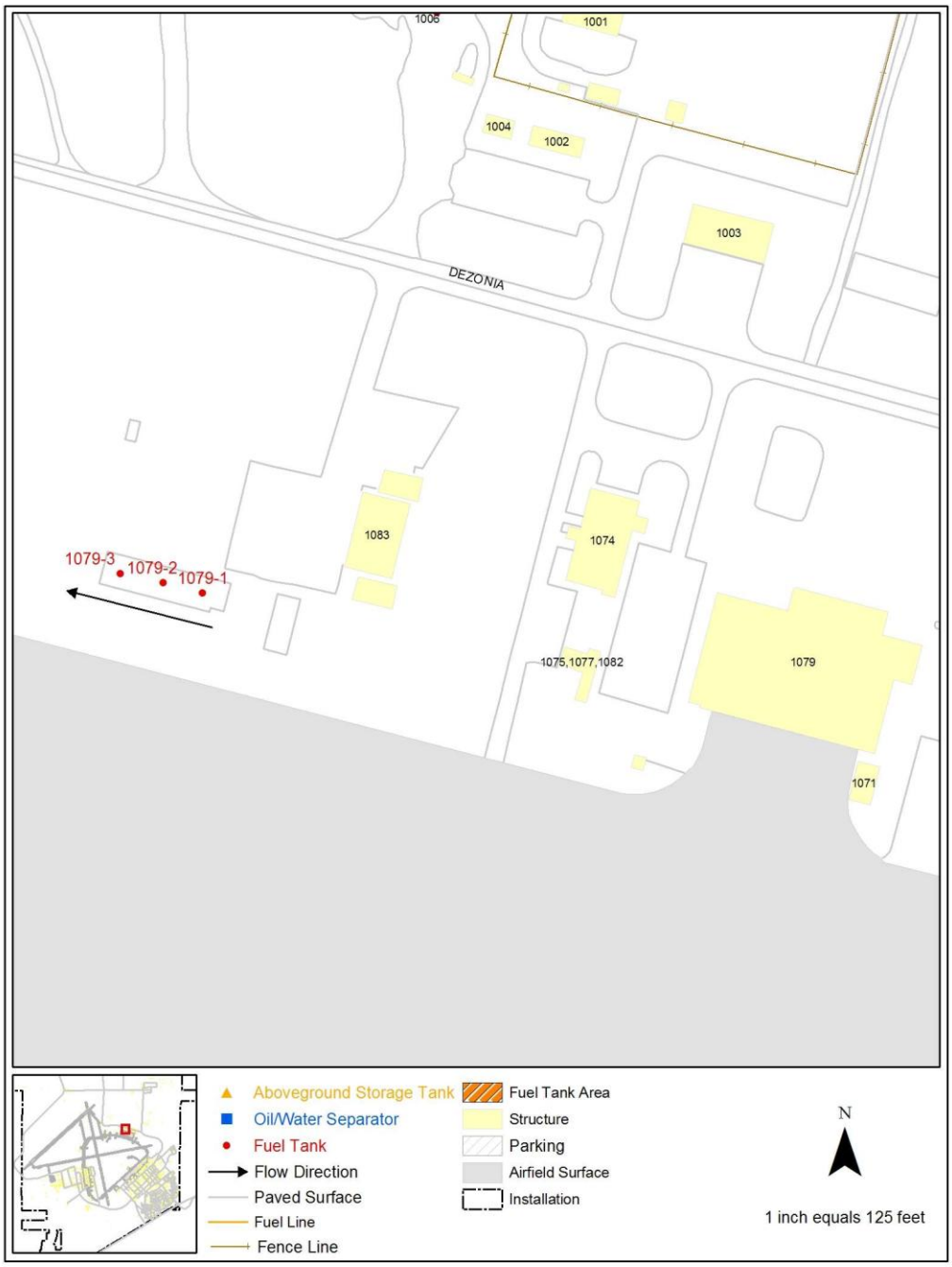


Figure 5-13-1. Facility 1079 – Army Air Division

5.13.3 Secondary Containment

See Table 5-13-3.

Table 5-13-3. Facility 1079 – Secondary Containment

Container ID	Type	Release Mechanism
1079- 1	Double-Walled	None

5.13.3 Inspection and Testing

AAD personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-14-4. Facility 1079 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
1079-1	External Condition and Leak Check	PE Recommendation	Visual	Monthly
1079-1	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
1079-1	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
1079-1	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
1079-1	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
1079-1	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.13.5 Potential Spill Scenario

The worst case spill for this area would involve an unloading accident from the JP-8 reclamable jet fuel tank or the used oil tank while being emtiep by the vacuum truck. Eventually, the spill would not reach navigable waters.

Table 5-13-5. Facility 1079 – Secondary Containment (DELETE)

Container ID	Spill Amount	Cause	Pathway
Delivery Truck	1,200	Operator Error	Pavement to Swale

5.14 Test Track – 846 Test Squadron

5.14.1 Area Description

The 846th Test Squadron (846th TS) of the 46th Test Group operates the Test Track, a 10-mile steel rail track for rocket sleds. This squadron tests aircraft ejection seats, high speed projectiles, and other equipment. SPCC regulated containers in this area include fuel tanks for service vehicles, oil drums, portable generators, and oil quench tanks associated with metal heat treating ovens. Personnel manage the drums and portable generators according to the mobile and portable containment policy found in Section 4.9.

The two oil quench tanks in Building 1185 are considered oil-containing process equipment. Personnel never remove oil from these tanks and add oil from small containers when necessary. A spill from either tank would remain inside the building. Personnel work in this area every day and perform daily visual inspections to ensure proper operation.

Table 5-14-1 provides details for the fuel tanks, and Figures 5-14-1 and 5-14-2 show the container locations.

Table 5-14-1. Test Track Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
1166-1	AST, Horizontal	1,000	Steel	2001	Gasoline
1166-2	AST, Horizontal	2,000	Steel	2001	Diesel
1180	AST, Horizontal	2,000	Steel	2001	Diesel

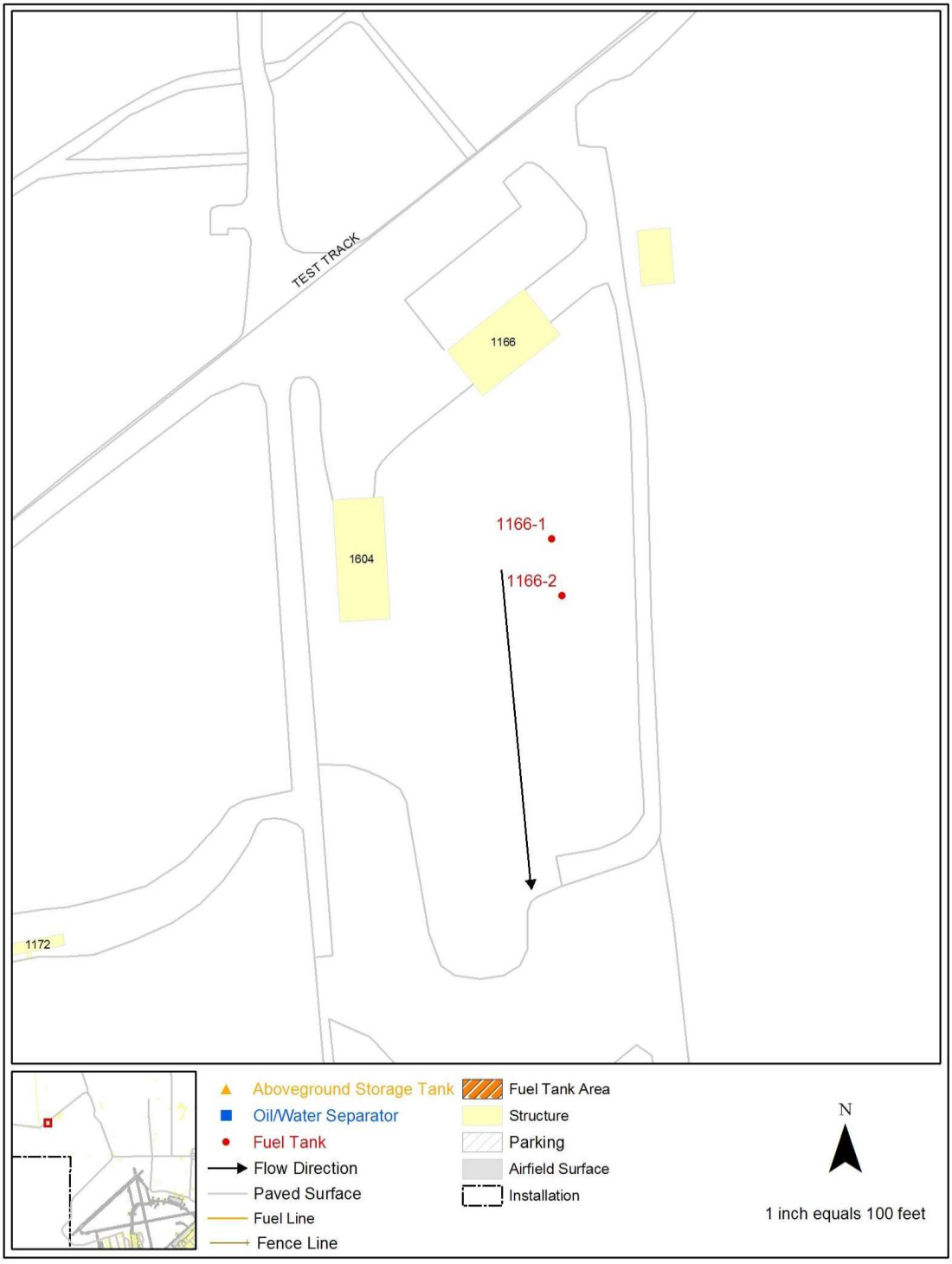


Figure 5-14-1. Test Track – Building 1166

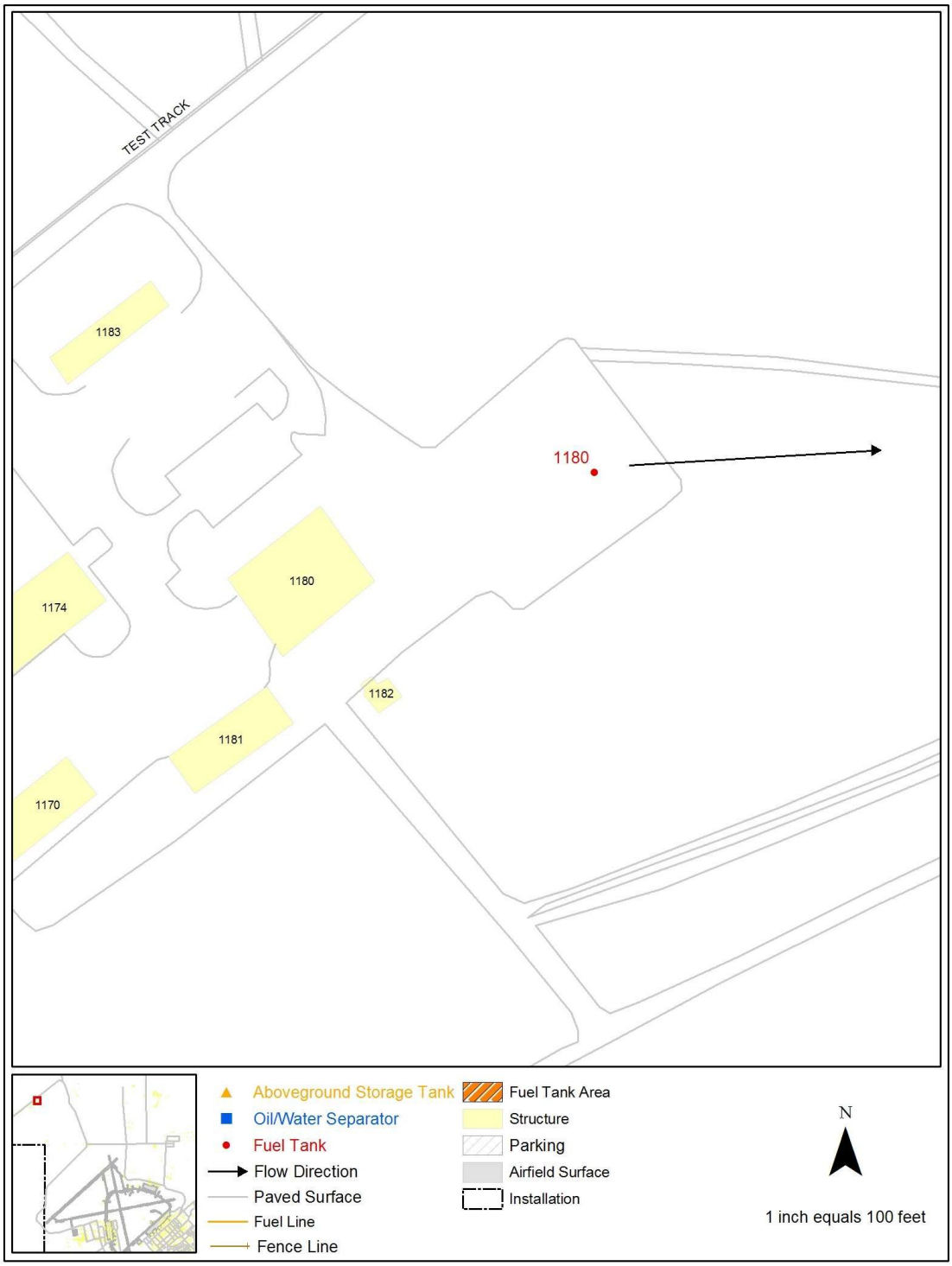


Figure 5-14-2. Test Track – Building 1180

5.14.2 Product Handling

When required, personnel from the POL Yard deliver fuel to the 846th TS tanks using a C300 tanker truck. Personnel refill service vehicles using manually operated dispensers. All piping for these containers is aboveground. Overfill protection on the tanks is through visual observation.

Table 5-14-2. Test Track – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
1161-1, 2 1180	Truck	Mechanical Gauge	Manual Dispenser

5.14.3 Secondary Containment

All three tanks are double-walled and sit within concrete dikes. All piping is within the diked areas. Personnel follow the rainwater release procedures in Section 4.9 prior to any release from the dikes.

Table 5-14-3. Test Track – Secondary Containment

Container ID	Type	Release Mechanism
1161-1, 2 1180	Double Walled, Dike	None

5.14.4 Inspection and Testing

Area personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-14-4. Test Track – Container Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
1161-1, 2 1180	External Condition and Leak Check	PE Recommendation	Visual	Monthly
1161-1, 2 1180	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
1161-1, 2 1180	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
1161-1, 2 1180	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
1161-1, 2 1180	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
1161-1, 2 1180	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
1161-1, 2 1180	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
1161-1, 2 1180	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.14.5 Potential Spill Scenario

The worst case spill for this area would involve an unloading accident from a fuel delivery truck. If a problem occurred during tank loading, possibly 1,200 gallons could spill onto the surrounding gravel parking areas. However, very gradual slopes would lead to pooling of the spill such that oil would not reach navigable waters.

Table 5-14-5. Test Track – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
1161-1, 2 1180	1,200	Truck Unloading	Gravel to Swale

5.15 Facility 828 – 49th MXS

5.15.1 Area Description

The 49th Maintenance Support Squadron (MXS) performs periodic maintenance on AGE used in the West Area flightline. They have operations in several buildings in this area that store POL in SPCC-regulated containers. Personnel manage all drums and bowsers according to the mobile and portable container policy found in section 4.9. Facility 828 is the refueling station for AGE used in the West Area. The entire area is well lit and surrounded by a security fence. Figure 5-15-1 shows the container locations, and Table 5-15-1 provides container details.

Table 5-15-1. Facility 828 Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
828-1, 2, 3	AST, Horizontal	6,000	Steel	Unknown	JP-8

5.15.2 Product Handling

Personnel request fuel deliveries from the POL Yard when necessary. Product delivery procedures follow those outlined in Section 4.13. Underground cathodic protected piping from these containers leads to manually operated dispensers. The tanks are manually gauged with a dipstick prior to product receipt.

Table 5-15-2. Facility 828 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
828-1, 2, 3	Truck	Visual	Dispenser

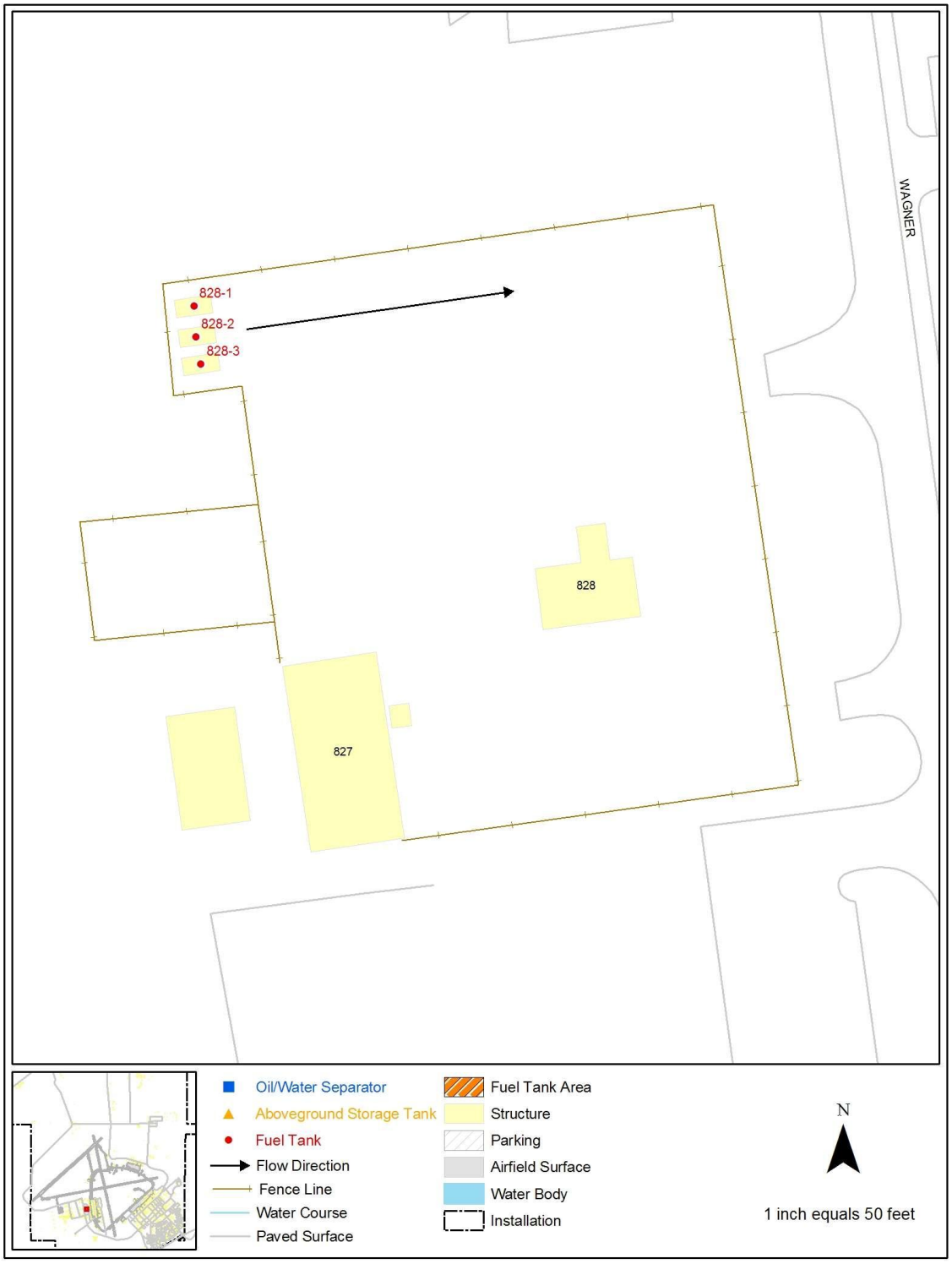


Figure 5-15-1. Facility 828 – 49 MXS

5.15.3 Secondary Containment

All three single walled tanks sit within a single, concrete diked area. Appendix B contains the volume calculations for this area. Personnel drain rainwater through normally locked, manually operated valves according to the rainwater release procedures in Section 4.10.

Table 5-15-3. Facility 828 – Secondary Containment

Container ID	Type	Release Mechanism
828-1, 2, 3	Dike	Manual Valve

5.15.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-15-4. Facility 828 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
828-1, 2, 3	External Condition and Leak Check	PE Recommendation	Visual	Monthly
828-1, 2, 3	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
828-1, 2, 3	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
828-1, 2, 3	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
828-1, 2, 3	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
828-1, 2, 3	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.15.5 Potential Spill Scenario

A worst-case spill in this area would result from an equipment failure during product unloading. The loss of the entire contents of an R-11 tanker truck would spill 6,000 gallons of JP-8 onto a secondary containment area, thus preventing fuel from contaminating the soil outside the fenced area.

Table 5-15-5. Facility 828 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
828-1, 2, 3	6,000	Truck Unloading Error	Seconday Containment

5.16 Basic Expeditionary Airfield Resources (BEAR) Base – 49th MMG

5.16.1 Area Description

The 49th Materiel Maintenance Group (49th MMG) operates within a large fenced area west of Moroni Drive. They are responsible for storage, inspection, repair, and deployment of BEAR base assets. A BEAR Base is a deployable organization that includes personnel, industrial facilities such as billeting, kitchens, dormitories, showers, flight line equipment, and high voltage power generators.

The maintenance group uses JP-8, diesel, and gasoline. They also generate used oil from maintenance activities and store new oil in drums. Personnel manage the drums in accordance with the mobile and portable container policy in Section 4.9. Figure 5-16-1 shows the container locations, and Table 5-16-1 provides container details.

Table 5-16-1. BEAR Base Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
901-1	AST, Horizontal	528	Steel	2004	Used Oil
901-2	AST, Horizontal	528	Steel	2004	Used Oil
906-3	AST, Horizontal	750	Steel	1999	Gasoline
906-4	AST, Horizontal	4,000	Steel	2004	Diesel
933	AST, Horizontal	5,250	Steel	1990	Diesel

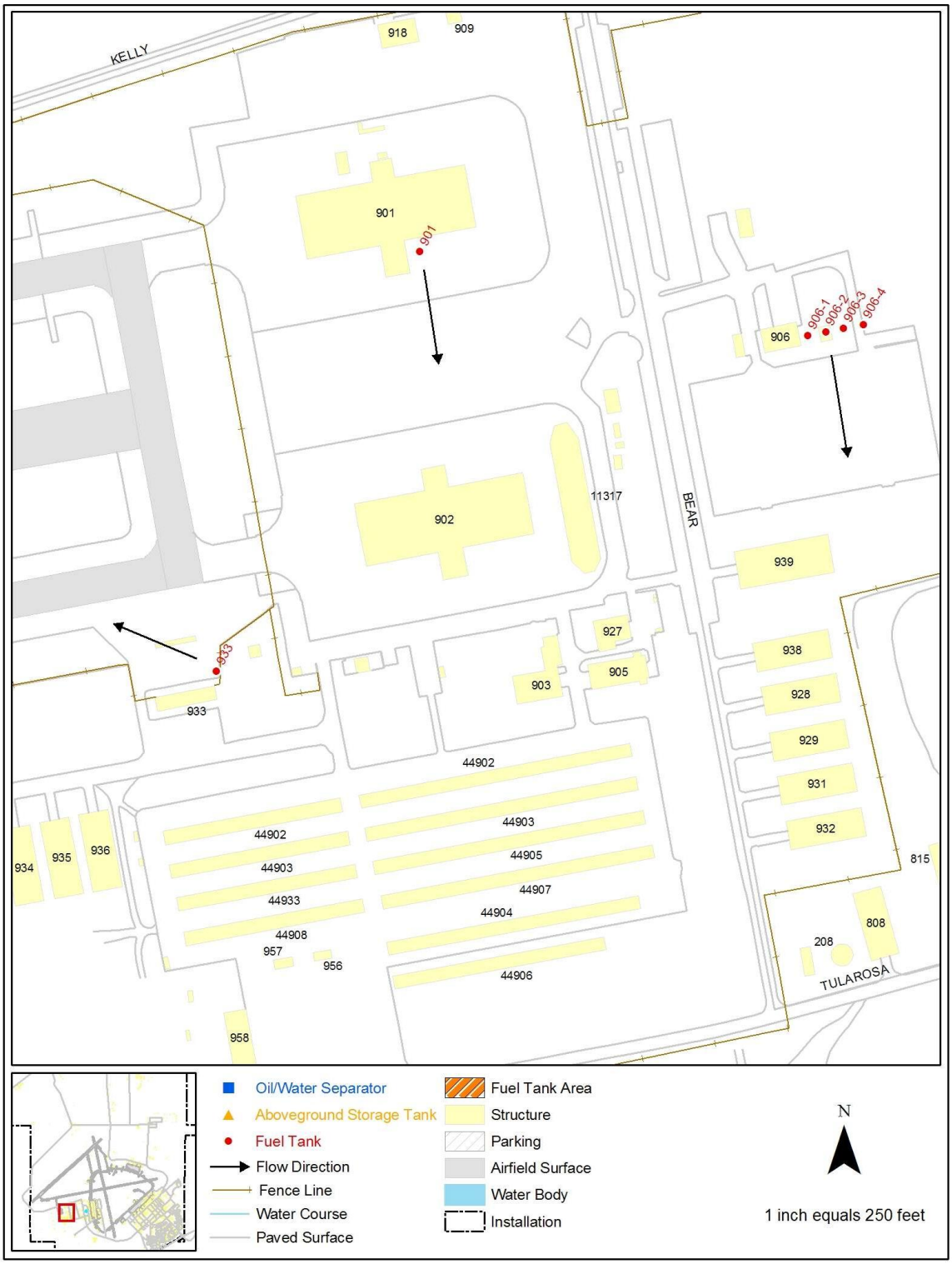


Figure 5-16-1. BEAR Base – 49 MMG

5.16.2 Product Handling

Personnel manually load used oil into Tanks 901-1 and 901-2 from smaller containers. A contracted vacuum truck empties the tank when requested. There is no piping associated with this container. Overfill protection is by visual inspection.

Personnel from the POL Yard deliver product to the other containers when requested and follow the truck unloading procedures outlined in Section 4.13. BEAR Base personnel use manually operated dispensers with flexible hoses and dead-man switches to dispense product into various vehicle motive power tanks or portable containers. All piping is aboveground. Overfill protection is by visual inspection on all the tanks.

Tank 933 is a single-walled diesel tank sitting in a concrete dike and has an automatic pump shutoff to prevent overfilling. Aboveground, single walled piping sitting in a secondary containment transfers product from this tank to a multi-dispenser piping network.

Table 5-16-2. BEAR Base – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
901-1,2	Manual	Visual	Vacuum Truck
906-3	Truck	Visual	Dispenser
906-4	Truck	ATG	Dispenser
933	Truck	Visual and Pump Shutoff	Dispenser

5.16.3 Secondary Containment

Tank 901-1,-2 and 906-4 are double walled. Tanks 906-2 and 933 are single walled and are set within a concrete diked area. Product tanks in Building 901 are contained within the building by a grated containment trench. Appendix B contains the volume calculations for the diked areas. All dikes are equipped with locked, manually operated valves. Personnel follow the rainwater release procedures in Section 4.12 prior to any release from the diked areas.

Table 5-16-3. BEAR Base – Secondary Containment

Container ID	Type	Release Mechanism
901-1, 901-2, 906-4	Double Walled	NA
906-3, 933	Dike	Manual Valve

5.16.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-16-4. BEAR Base – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
901-1,-2 906-3, 4 933	External Condition and Leak Check	PE Recommendation	Visual	Monthly
906-3, 4 933	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
901-1,-2, 906-4	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
901-1,-2 906-3, 4 933	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
901-1,-2 906-3, 4 933	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
901-1,-2 906-3,-4 933	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
933, 906-4	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
901-1,-2 906-3, 4 933	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.16.5 Potential Spill Scenario

A worst-case spill in this area would result from an equipment failure during product unloading. The loss of the entire contents of a C300 tanker truck would spill 1,200 gallons of diesel onto the soil near the containers.

Table 5-16-5. BEAR Base – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
Tanker Truck	1,200	Truck Unloading Error	Field to Stormwater

5.17 Facility 844 – West Area Vehicle Maintenance

5.17.1 Area Description

A contractor provides vehicle maintenance for the West Area Motor Pool and operates in Buildings 842, 844, 845, and 899. The SPCC-regulated containers include 55-gallon drums of new and used oil and a 528 gallon used oil tank. Personnel manage the drums in accordance with the mobile and portable container policy in Section 4.10. There are three permanently closed, 10,000-gallon tanks near Building 845 that were part of a fueling station. Figure 5-17-1 shows the used oil container location, and Table 5-17-1 provides container details.

Table 5-17-1. Facility 844 – Container

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
844	AST, Vertical	528	Steel	2004	Used Oil

5.17.2 Product Handling

Personnel manually load used oil into the large tank from smaller containers used for vehicle oil changes. A contracted vacuum truck empties the tank when requested. There is no piping associated with this container.

Table 5-17-2. Facility 844 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
844	Manual	Visual	Vacuum Truck

5.17.3 Secondary Containment

Appendix B contains the volume calculations. A spill kit is kept nearby. An OWS captures storm water for the entire area before discharging to the sanitary sewer system.

Table 5-17-3. Facility 844 – Secondary Containment

Container ID	Type	Release Mechanism
844	Dike	Manual Valve

5.17.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Container ID	Inspection/Test	Standard	Method	Frequency
844	External Condition and Leak Check	PE Recommendation	Visual	Monthly
844	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
844	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
844	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
844	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

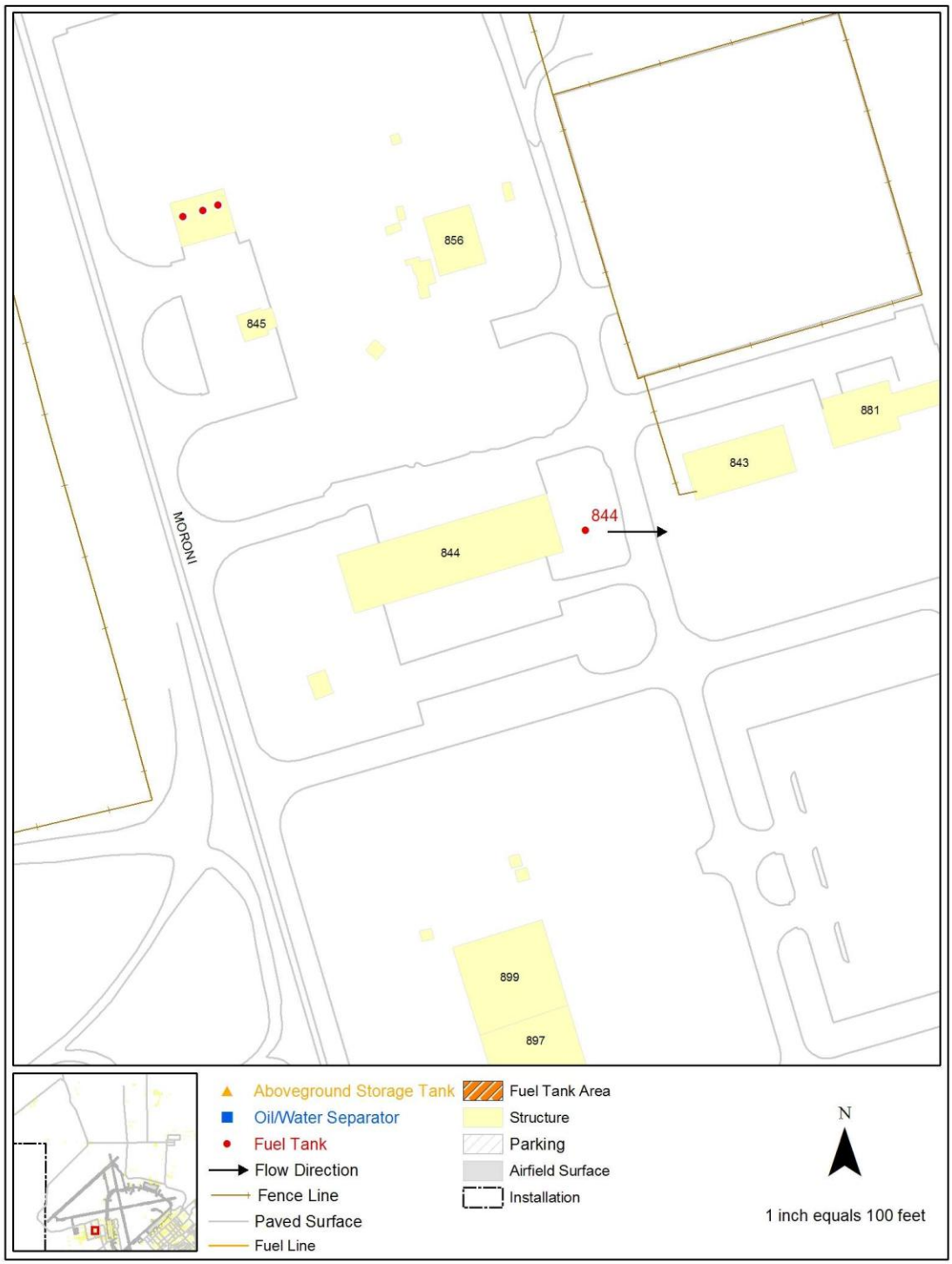


Figure 5-17-1. Facility 844 – West Area Vehicle Maintenance

Table 5-17-4. Facility 844 – Inspection and Testing

5.17.5 Potential Spill Scenario

The worst case spill for this area would involve the vacuum truck. If a problem occurred during tank unloading, possibly 2,000 gallons of used oil could flow into the oil//water separator.

Table 5-17-5. Facility 844 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
844	2,000	Truck Loading Error	Pavement to OWS

5.18 Facilities 11648 and 11649 – Hush Houses

5.18.1 Area Description

Hush houses 11648 and 11649 are used by 49 MXS for testing F-22 aircraft and its engines. Maintenance personnel use a 2500 gallon capacity mobile bowser to provide JP-8 fuel to the facilities as needed to test both the aircraft and engines. Each hush house had associated fuel storage tanks for JP-8, but they are empty and classified as unserviceable. Personnel from the POL Yard refill this container using an R-11 tanker truck when requested. Additionally, a mobile bowser is used at both facilities when needed. Figure 5-18-1 shows the storage container locations, and Table 5-18-1 provides details about the containers.

Table 5-18-1. Facilities 11648 and 11649 – Hush Houses

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
11649-1	AST, Horizontal	2,500	Steel	1989	JP-8
11649-2	AST, Horizontal	2,500	Steel	1989	JP-8

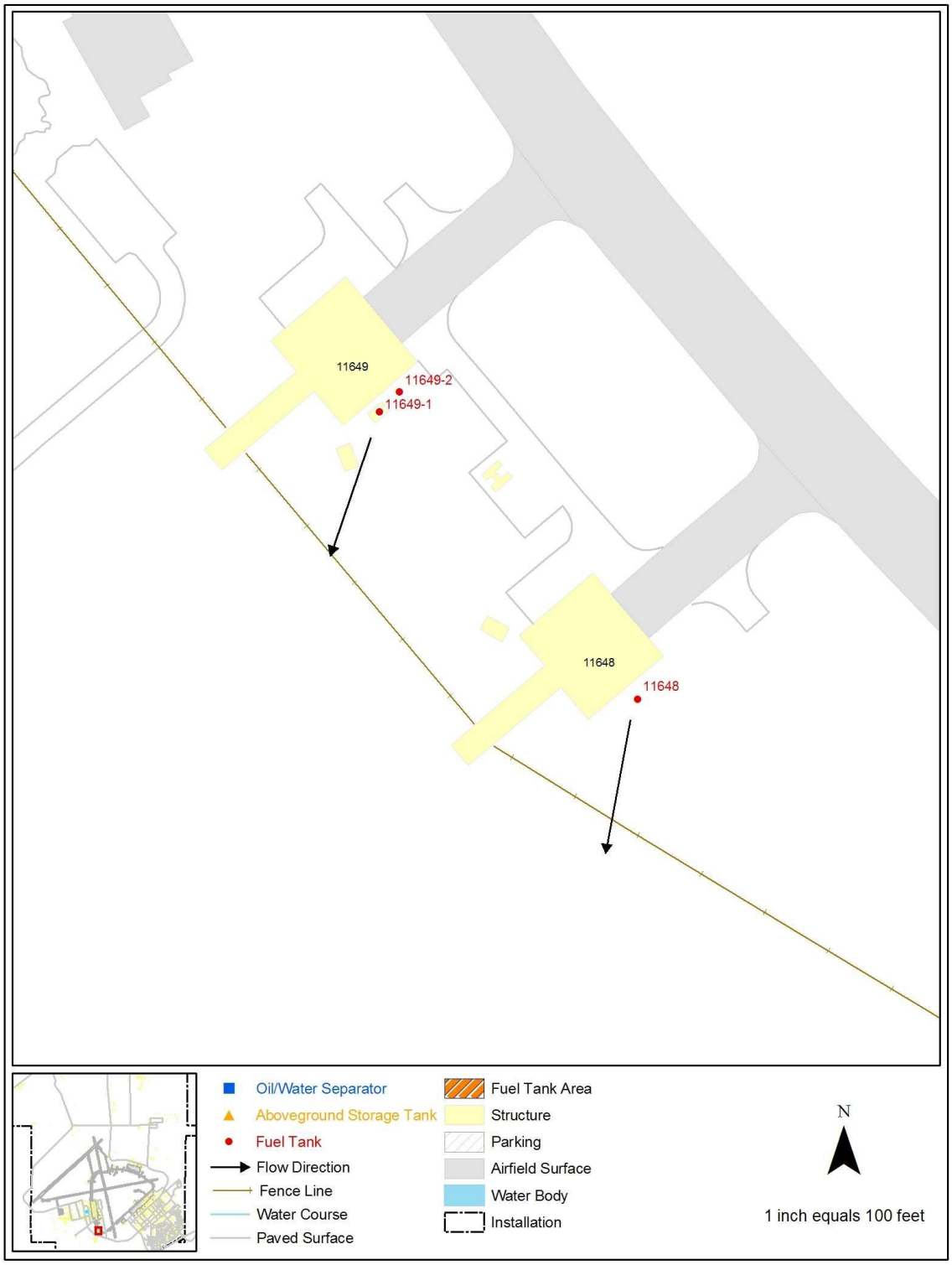


Figure 5-18-1. Facilities 11648 and 11649 - Test Cells

5.18.2 Product Handling

Aboveground piping transfers product from these containers to the engines inside the hush house during testing.

Table 5-18-2. Facilities 11648 and 11649 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
11649-1, 11649-2	Truck	Visual	Piping

5.18.3 Secondary Containment

Each of these single-walled containers sits within individual concrete diked areas that drain through a normally closed and locked, manually operated valve to the field near the Hush Houses. Appendix B contains calculations of the volume of each diked area. Personnel follow the rainwater release procedures in Section 4.9 prior to any release from the diked areas. Personnel also maintain a spill kit inside each building.

Table 5.18.3. Facilities 11648 and 11649 – Hush Houses – Secondary Containment

Container ID	Type	Release Mechanism
11649-1, 11649-2	Dike	Manual Valve

5.18.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-18-4. West Area Test Cells – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
11649-1, 11649-2	External Condition and Leak Check	PE Recommendation	Visual	Monthly
11649-2	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
11649-2	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
11649-2	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
11649-2	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
11649-2	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.18.5 Potential Spill Scenario

The worst-case spill for this area would involve the refueling truck. If a problem occurred during tank loading, possibly 6,000 gallons of JP-8 could flow into the storm water system.

Table 5-18-5. Facilities 11648 and 11649 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
11649-1, 11649-2	6,000	Truck Unloading Error	Concrete apron to Ditch

5.19 Facility 304 – Fire Department – Vehicle Maintenance

5.19.1 Area Description

The Fire Department Vehicle Maintenance performs routine maintenance on their vehicles and equipment and generate used oil in the process. They do not store motive power fuel at their building, but they do have several drums managed according to the mobile and portable container policy found in Section 4.10. This area also has an emergency generator container (see Section 5.23). Figure 5-19-1 shows the used oil container location, and Table 5-19-1 provides container details.

Table 5-19-1. Facility 304 – Container

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
304-1	AST, Horizontal	528	Steel	Unknown	Used Oil

5.19.2 Product Handling

Personnel manually load used oil into the large tank from smaller containers used for vehicle oil changes. A contracted vacuum truck empties the tank when requested. There is no piping associated with this container. Overfill protection is through visual inspection.

Table 5-19-2. Facility 304 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
304-1	Manual	Visual	Vacuum Truck

5.19.3 Secondary Containment

This container is double walled and a spill kit is kept nearby.

Table 5-19-3. Facility 304 – Secondary Containment

Container ID	Type	Release Mechanism
304-1	Double Walled	None

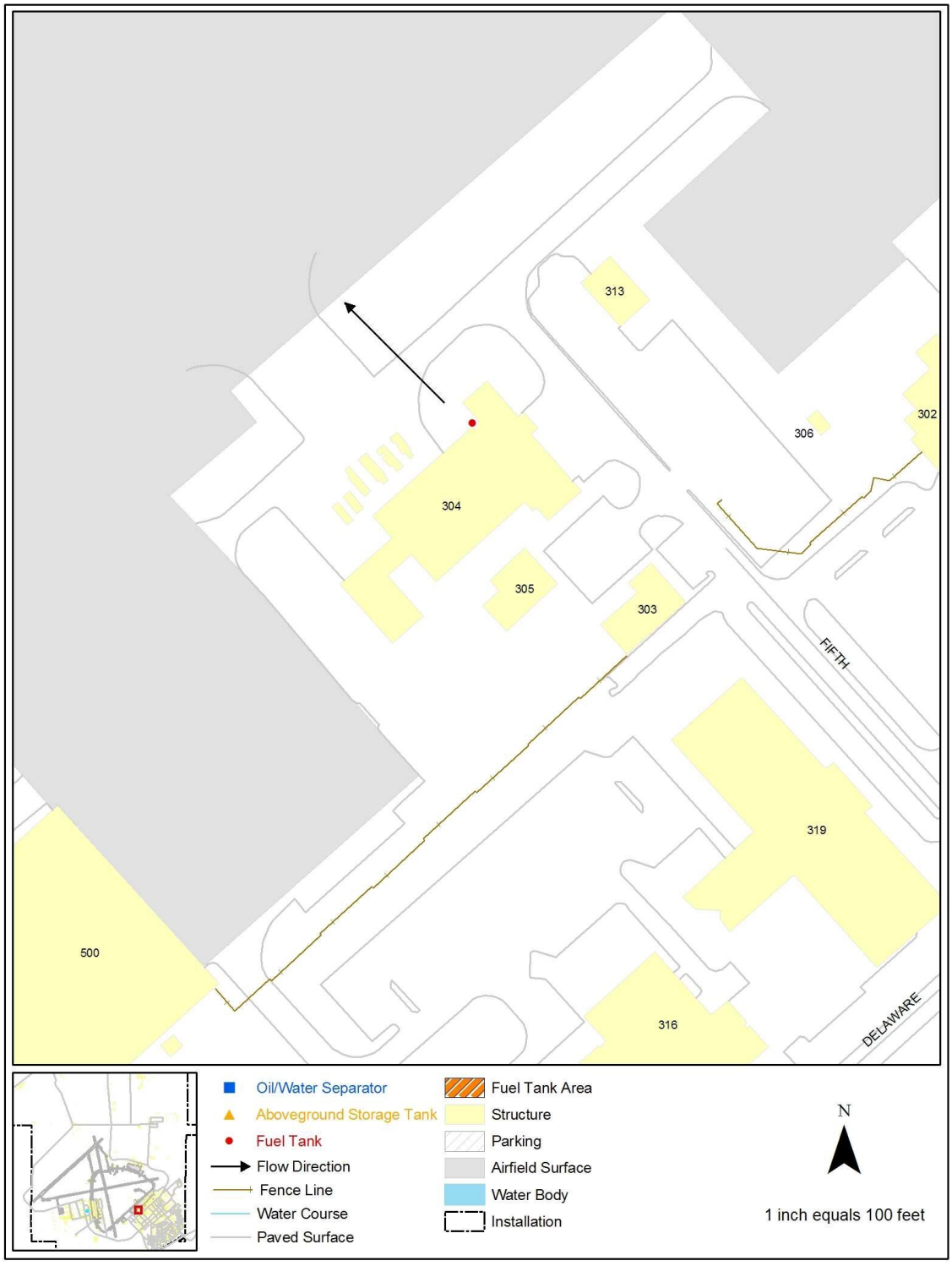


Figure 5-19-1. Facility 304 – Fire Department

5.19.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-19-4. Facility 304 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
304-1	External Condition and Leak Check	PE Recommendation	Visual	Monthly
304-1	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
304-1	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
304-1	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
304-1	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
304-1	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
304-1	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.19.5 Potential Spill Scenario

The worst case spill for this area would involve the vacuum truck. If a problem occurred during tank unloading, possibly 2,000 gallons of used oil could flow into the storm water system.

Table 5-19-5. Facility 304 – Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
304-1	2,000	Truck Loading Error	Pavement to Ditch

5.20 Facility 231 – Auto Skill Center

5.20.1 Area Description

Military personnel are allowed to use the facilities at the Auto Skill Center to maintain their personal vehicles. Typical activities include tire changes, oil changes, and minor engine repairs. Drums of new oil are managed according to the mobile and portable container policy found in Section 4.10, and used oil is stored in the 528-gallon container. This area also has an OWS (see Section 5.24). Table 5-20-1 provides details regarding the container, and Figure 5-19-1 shows the container location.

Table 5-20-1. Facility 231 – Container

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
231	AST, Vertical	528	Steel	2000	Used Oil

5.20.2 Product Handling

Shop users place their used oil in drums inside the shop. When necessary, the shop supervisor activates the pump that transfers the used oil through aboveground piping into the larger, outdoor container. The system also has an automatic pump shutoff mechanism to prevent overfilling. A contractor empties the large container with a vacuum truck when requested.

Table 5-20-2. Facility 231 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
231	Piping	Pump Cutoff	Vacuum Truck

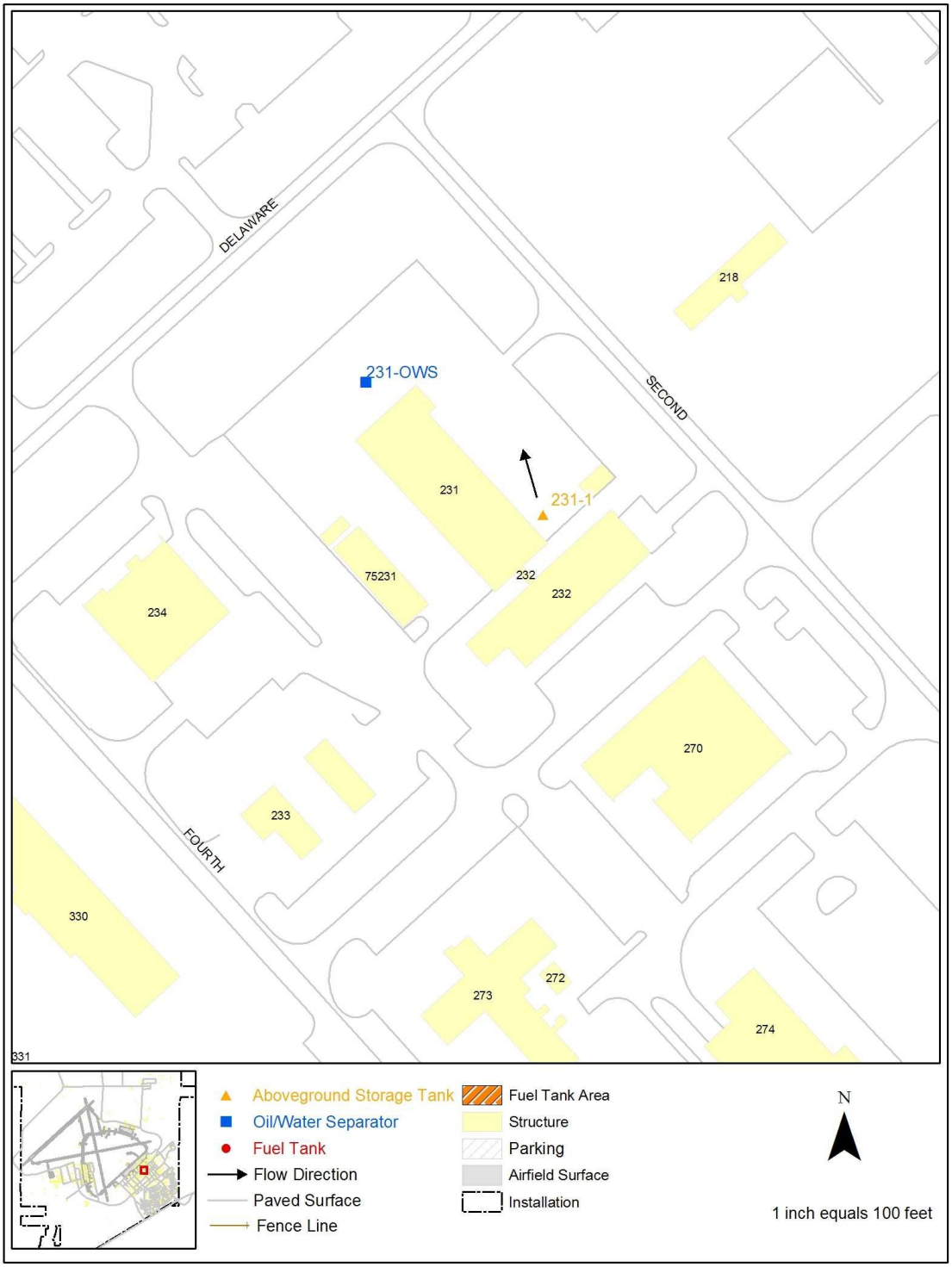


Figure 5-20-1. Facility 231 – Auto Skill Center

5.20.3 Secondary Containment

The used oil container is double-walled, and personnel maintain spill kits in the shop area.

Table 5-20-3. Facility 231 – Secondary Containment

Container ID	Type	Release Mechanism
231	Double Walled	None

5.20.4 Inspection and Testing

Personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-20-4. Facility 231 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
231	External Condition and Leak Check	PE Recommendation	Visual	Monthly
231	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
231	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
231	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
231	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.20.5 Potential Spill Scenario

The worst case spill for this area would involve the vacuum truck. If a problem occurred during tank unloading, possibly 2,000 gallons of used oil could flow into the storm water system.

Table 5-20-5. Facility 231 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
231	2,000	Truck Unloading Error	Pavement to Ditch

5.21 Facilities 51/54/55 – Civil Engineer Squadron Yard

5.21.1 Area Description

49 CES/CEOIG maintains several tanks in the CES Yard for storing used oil and diesel fuel. Other CES units store various used oils and other materials in drums according to the mobile and portable container policy in Section 4.10. Table 5-21-1 provides details regarding the larger tanks, and Figure 5-21-1 shows the container location.

Table 5-21-1. Facility 54 – Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
51	AST, Horizontal	2,000	Steel	UNK	Diesel
54-1, 2, 3	AST, Vertical	385	Polyethylene	UNK	Used Oil
55	AST, Horizontal	250	Steel/Concrete	2007	Diesel

5.21.2 Product Handling

Personnel manually load the used oil containers from smaller buckets. The POL Yard delivers fuel to the diesel tank when requested. Personnel follow the product loading procedures outlined in Section 4.13. Fuel is transferred to the Power Production truck-bed tank via manually operated dispensers. Overfill protection on all the containers is through visual observation. None of the containers have associated piping.

Table 5-21-2. Facility 54 – Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
51-1	Truck	Visual	Manual Dispenser
54-1, 2, 3	Manual	Visual	Vacuum Truck
55-1	Truck	Visual	N/A

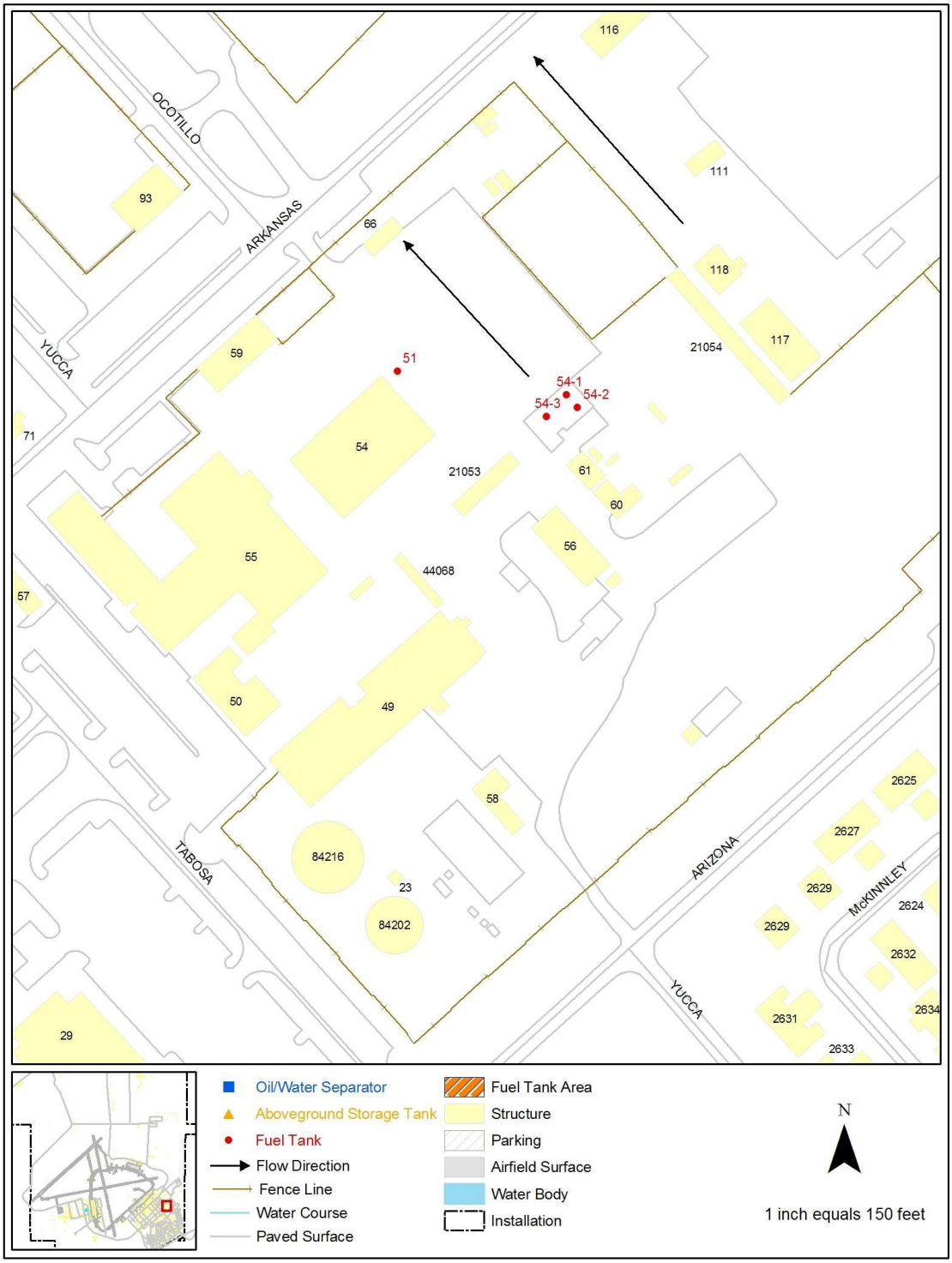


Figure 5-21-1. Facility 54 – CE Yard

5.21.3 Secondary Containment

All the containers are double-walled, and personnel maintain spill kits in the shop areas.

Table 5-21-3. Facility 54 – Secondary Containment

Container ID	Type	Release Mechanism
51-1, 54-1, 2, 3, 55-1	Double Walled	None

5.21.4 Inspection and Testing

The polyethylene used oil containers are not subject to any industry standard that requires inspection and testing. However, monthly inspections are recommended. STI SP001-03 applies to the steel tank. Area personnel will maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-21-4. Facility 54 – Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
51, 54-1, 2, 3	External Condition and Leak Check	PE Recommendation	Visual	Monthly
51-1, 55-1	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
51-1, 55-1	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
51-1, 55-1	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
51-1, 55-1	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
51-1, 55-1	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
51-1, 55-1	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.21.5 Potential Spill Scenario

The worst case spill scenario for this area involves equipment failure during product loading. Such a failure might release the entire contents of a C300 truck into the yard.

Table 5-21-5. Facility 54 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
51-1, 55-1	1,200	Truck Unloading Error	Pavement to Ditch

5.22 Facility 112 — Defense Reutilization and Marketing Office (DRMO) complex

5.22.1 Area Description

The DRMO stores used oil drums and drums of hazardous wastes at their accumulation site. CES has a segregated area within the DRMO complex to store old transformers full of oil. This area has a large, fenced, paved yard with several open sheds for storing these materials. DRMO complex does not have any SPCC-regulated containers other than drums and CES old transformers. Figure 5-22-1 shows this yard and the flow routes.

5.22.2 Product Handling

Area personnel move and handle drums using forklifts and other equipment. They do not transfer oil or product between containers. This area has no associated piping. A contractor removes oil from the drums using a vacuum truck when requested. Another contractor removes the old transformers.

5.22.3 Secondary Containment

Personnel follow the mobile and portable container policy in Section 4.10 that requires some form of secondary containment for all affected containers. This facility has several sheds that cover concrete-floored areas with 4-inch curbs around the perimeter. If any rainwater accumulates in these areas, personnel follow the rainwater release procedures outlined in Section 4.9. Personnel also maintain several spill kits in the area.

5.22.4 Inspection and Testing

Personnel follow the mobile and portable container policy in Section 4.10 that requires monthly visual inspections for affected containers. DRMO documents these inspections on a monthly log.

5.22.5 Potential Spill Scenario

A reasonably potential spill scenario for this area would involve an equipment failure during drum unloading operations. Such a spill could release several thousand gallons of collected oil from the vacuum truck. Spill kits are nearby during product handling.

Table 5-22-1. DRMO Potential Spill Scenario

Container ID	Spill Amount (Gallons)	Cause	Pathway
Vacuum Truck	2,000	Truck Loading Error	Pavement to Ditch

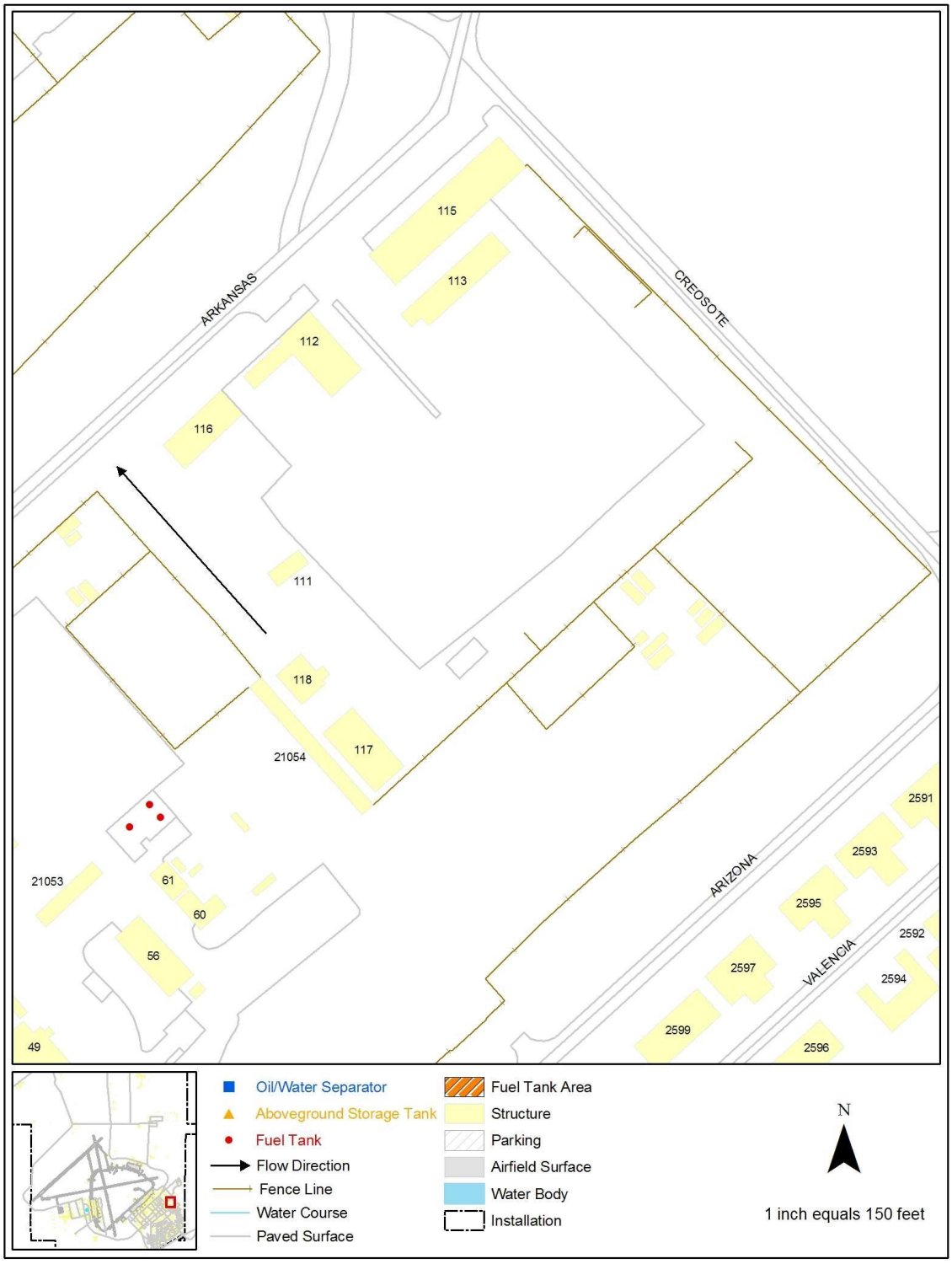


Figure 5-22-1. Facility 112 – DRMO

5.23 Emergency Generators

5.23.1 Area Description

Holloman has approximately 46 stationary emergency generators spread throughout the installation. Each generator has an associated diesel storage tank either as a belly tank located beneath the generator or as a separate tank with piping to the generator. Some units have both types of tanks where the storage tank feeds a smaller belly tank. All the emergency generator tanks are aboveground. Power Production, 49 CES/CTRL/DCC, maintains the majority of the emergency generators and maintains a database listing the location, fuel storage capacity, hours operated in the past 12 months, and other information. Appendix H lists the emergency generator storage containers. Power Production also maintains several containers in the CE Yard (see Section 5.23).

5.23.2 Product Handling

All emergency generator tanks are filled by truck. Power Production personnel monitor fuel levels during their regular inspections and either request a delivery from the POL Yard or dispense diesel from 250-gallon tanks mounted in the bed of a maintenance truck. Overfill protection is through visual observation. Piping from the storage tank to the generator may be aboveground or underground. All underground piping is wrapped for protection.

5.23.3 Secondary Containment

All emergency generators either have double walled tanks and/or are either diked or located inside buildings with no spill route to the outdoors. Personnel follow the rainwater release procedures in Section 4.9 for those with diked areas.

5.23.4 Inspection and Testing

Emergency generator operators inspect the generator fuel tanks once each calendar quarter. These inspections include many of the observations required by the Steel Tank Institute's SP001 that applies to shop-built tanks. Generator belly tanks have no applicable industry standard but receive the same type of detailed inspections.

Table 5-23-4 shows the tank integrity inspections and tests for all the shop-built tanks associated with the emergency generators. Records of certified inspections will be

maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers.

Table 5-23-4. Emergency Generators Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
Shop-built Generator Tanks	Presence of water in Primary Tank	STI SP001-03	Sampling	Yearly
Double Walled Shop-built Generator Tanks	Presence of water or fuel in Interstice	STI SP001-03	Manual	Monthly
Shop-built Generator Tanks	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
Shop-built Generator Tanks	External Condition and Leak Check	PE Recommendation	Visual	Monthly
Shop-built Generator Tanks	Operation of Pump Cutoff Sensor	PE Recommendation	Manual	Yearly
Shop-built Generator Tanks	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
Shop-built Generator Tanks	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
Shop-built Generator Tanks	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.23.5 Potential Spill Scenario

The most likely spill scenario for an emergency generator involves the loss of a few gallons during product transfer from the maintenance truck to the storage tank. However, personnel should be aware that damage to piping or some other appurtenance could release the entire contents of the tank. Some outdoor generator tanks are surrounded by pavement while others are in unpaved fields. All spills from outdoor generator tanks could eventually reach the stormwater system.

5.24 Oil/Water Separators

Oil/water separators (OWS) are used in various locations at HOLLOMAN AFB to remove residual oil from industrial wastewater streams generated at the facility. The OWS at Holloman are slow flow, gravity separation chambers used to remove residual free oils and fuels. OWS are typically constructed of concrete or steel. Some designs have a separate compartment for storing only skimmed oil. Others collect oil in a baffled chamber on top of the process water that flows through the OWS. Grease Traps where kitchen grease is removed from sanitary wastewater are considered OWS for purposes of this Plan. All of these OWSs and Grease Traps are exempt from SPCC requirements as allowed under the wastewater treatment exemption in 40 CFR 112.1(d)(6). They are mentioned here for documentation only.

49 CES/CEAN maintains a separate database of OWS that includes design flow rates, oil storage capacity, and figures showing locations. OWS are used in wash racks, vehicle maintenance shops, engine test cells, and on food preparation effluent streams. They also treat rainwater from secondary containment. None of the OWS provide secondary containment for SPCC-regulated storage containers. All OWS drain into the sanitary sewer system.

OWS are located in areas where industrial activity is likely to create oily waste water. Oily water enters the system due to various processes. CE personnel regularly monitor the oil levels in the OWS chambers to prevent overfilling. A contractor cleans and empties the OWS when requested. Personnel follow established procedures to minimize spills during this process (see section 4.13). Spill kits are nearby during the OWS unloading process.

5.25 Elevators and Hydraulic Machinery

5.25.1 Area Description

There are several elevators located at Holloman that have hydraulic fluid reservoirs greater than 55-gallons. These elevators are all located within buildings. All other hydraulic machinery on base have reservoirs less than 55-gallon capacity and are therefore not regulated under 40 CFR 112. Table 5-25-1 shows the elevator reservoirs information.

Table 5-25-1. Elevators

Building	Type	Manufacturer	Identification
29	Passenger	Emco	85-7763
45	Passenger	Dover	N/A
105	Freight	Courion	N/A
222	Passenger	Emco	79-2686
224	Passenger	Emco	N/A
286	Passenger	Emco	C95-13658
294	Passenger	Dover	EK0645
317	Passenger	Otis	505201
325	Passenger	Dover	EG2381
581	Passenger	N/A	N/A
820	Freight	MD Knowlton	N/A
841	Freight	Rotary	E8993
841	Dumbwaiter	Century	N/A

5.25.2 Product Handling

A contractor maintains and services these units on a regular schedule. When necessary, personnel manually add hydraulic fluid to the reservoir from 5-gallon containers. All overfill protection is by visual observation.

5.25.3 Secondary Containment

All elevators are located in mechanical rooms within buildings. Should a spill occur, the discharge would be contained within the building.

5.25.4 Inspection and Testing

The service contractor visits each elevator monthly and performs visual inspections. Integrity testing of these reservoirs is not standard industry practice and is not recommended by this Plan. The inspection requirements are shown in Table 5-13-4.

Table 5-25-4. Elevators and Hydraulic Equipment

Container ID	Inspection/Test	Standard	Method	Frequency
Elevator Hydraulic Reservoir	Visual Inspection	PE Recommendation	Visual	Monthly

5.25.5 Potential Spill Scenario

As indicated in Section 5.25.3, all of the elevator and automotive floor lift reservoirs have no spill routes to navigable waters.

5.26 Facility 889, 830, 579 and 287- Fire Water Deluge Pumps

5.26.1 Area Description

These Facilities contain single walled AST's that supply fuel to diesel powered fire pumps. Table 5-26-1 provides details regarding the containers.

Table 5-26-1. Facility 287, 579 830, and 889 - Fire Water Deluge Pumps Containers

Container ID	Type	Capacity (Gallons)	Material of Construction	Install Date	Product Stored
287-1,2,3	AST, Horizontal	300	Steel	1995	Diesel
579-1,2	AST, Horizontal	500	Steel	Unknown	Diesel
830-1	AST, Horizontal	137	Steel	Unknown	Diesel
889-1,2,3,4	AST, Horizontal	300	Steel	Unknown	Diesel

5.26.2 Product Handling

R-11 tanker trucks deliver disel to the ASTs. Prior to filling, personnel confirm the tank ullage. Filling of these tanks require two personnel and overfill control is performed by visual monitoring. These tanks are hard-piped to the fire water pumps.

Table 5-26-2. Facility 287, 579 830, and 889- Fire Water Deluge Pumps

Product Handling

Container ID	Loading Method	Overfill Protection	Unloading Method
287-1,2,3	Truck	Visual	Piping
579-1,2	Truck	Visual	Piping
830-1	Truck	Visual	Piping
889-1,2,3,4	Truck	Visual	Piping
287-1,2,3	Truck	Visual	Piping

5.26.3 Secondary Containment

These AST's are all contained within their respective buildings, although only Building 287 provides adequate secondary containment. Environmentel Flight personnel are determining the feasibility of installing dikes or replacing the tanks with double walled tanks.

Table 5-26-3. Facility 287, 579 830, and 889- Fire Water Deluge Pumps

Seondary Containment

Container ID	Type	Release Mechanism
287-1,2,3	Dike	None
579-1,2	None	None
830-1	None	None
889-1,2,3,4	None	None
287-1,2,3	None	None

5.26.4 Inspection and Testing

Installation personnel maintain records of all inspections for at least three years as required by 40 CFR § 112.7(e). Records of certified inspections will be maintained for the life of the container. Section 4.8 of this Plan establishes the facility policy for the integrity testing requirements for smaller shop-built containers. Table 5-26-4 shows the inspection and testing requirements.

Table 5-26-4. Facility 287, 579 830, and 889- Fire Water Deluge Pumps Inspection and Testing

Container ID	Inspection/Test	Standard	Method	Frequency
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	External Condition and Leak Check	PE Recommendation	Visual	Monthly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Presence of water in Primary Tank	STI SP001-03	Sampling	Monthly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Operation and Cleanliness of Operating and Emergency Vents	STI SP001-03	Visual	Yearly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Emergency Vent Gasket	STI SP001-03	Visual	Yearly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Tank Supports and Foundation Damage	STI SP001-03	Visual	Yearly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Operation of Liquid Level Sensor	PE Recommendation	Manual	Yearly
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	Certified STI Inspection	STI SP001-03	Enhanced visual and records review	10 Years

5.26.5 Potential Spill Scenario

A catastrophic failure of one of the delivery tank trucks could instantaneously release the entire contents and overwhelm the surrounding berm. Any spill would flow along the storm ditches.

Table 5-26-5. Facility 287, 579 830, and 889 – Potential Spill Scenarios

Container ID	Spill Amount (Gallons)	Cause	Pathway
287-1,2,3, 579-1,2, 830-1, 889-1,2,3,4	6,000	R-11 Tanker Rupture	Varies

5.27 Electrical Transformers

5.27.1 Area Description

Oil-filled electrical transformers are spread throughout the installation property and are typically located near or inside large buildings. There are also many dry transformers that are not oil-filled and are therefore not SPCC-regulated containers. Exterior Electric, 49 CES/CEOIE, also maintains many pole and pad mounted transformers with oil storage capacities less than 55 gallons that are not subject to SPCC regulations. As discussed in Section 2.2, the large transformers on installation property at the electrical substation near the main gate are owned and operated by the local utility.

Exterior Electric maintains a database of all installation transformers. There are over 1100 active, in storage for use, and inactive awaiting disposal transformers at Holloman A.F.B.. An inventory of transformers current as of 2007 is available in Appendix I of this Plan.

5.27.2 Product Handling

Transformer maintenance on larger transformers includes monitoring the oil level and testing for dissolved gases in the oil. If the oil level drops below the required level, new oil is added. If the oil quality becomes too low, then the oil is replaced. Typical operations do not involve the transfer of transformer oil. Maintenance personnel simply replace an entire transformer if a problem develops. New transformers arrive full of oil, and old transformers are shipped off full of oil.

Transformers maintained by 49 CES/CEOIE have never required the addition or replacement of any oil. However, the procedure for adding oil to a transformer requires manual filling with a 5-gallon or smaller container. Drip pans and rags are used to capture any drips or small spills. Replacing the oil in a transformer would be contracted to a company specializing in such procedures. Appropriate secondary containment would be used during transformer oil replacement.

5.27.3 Secondary Containment

The SPCC rules require appropriate containment for oil-filled electrical equipment to prevent a discharge and contain oil until cleanup occurs. The regulation allows facilities to use sorbent materials for this purpose (40 CFR § 112.7). For transformers, a large spill would result in power loss and immediate attention from installation personnel. Response personnel would deploy sorbent materials to contain any spilled oil at that time. Personnel may also use portions of the installation's storm water system to contain a spill prior to cleanup.

5.27.4 Inspection and Testing

Exterior Electric inspects and tests transformers when sensors indicate reduced performance. At that time, oil level and oil quality may be checked. The Institute for Electronic and Electrical Engineers (IEEE) Standard 62, Guide for Diagnostic Field Testing of Electric Power Apparatus, recommends common, practical diagnostic procedures to assist electrical maintenance personnel in establishing a maintenance schedule for oil-filled electrical equipment. This standard relies heavily upon manufacturer's recommendations for inspections and testing. Installation personnel follow these recommendations and perform visual inspections on an annual basis or when necessary.

5.27.5 Potential Spill Scenario

Catastrophic failure of one of the larger transformers may release several hundred gallons or more of transformer oil. Installation personnel would respond appropriately according to the procedures outlined in Section 4.7 and prevent the spill from reaching navigable waters. Spill routes would follow the storm drainage system.

5.28 Animal Fat and Grease Containers

There are eleven 225-gallon horizontal steel tanks at Holloman AFB that contain greases from food preparation activities. The locations are listed in Table 5.27 These containers are filled manually and are emptied by pumping into a collection truck. No diking is provided for these tanks. Base personnel are currently scoping dike option as well as modifications to the existing operation to correct this deficiency.

Table 5-28. Animal Fat and Grease Containers

Building	Facility Name	Grease Container Capacity (gals)	Quantity of Containers
33	Popeye's	225	2
214	JR Rocker's	225	1
274	Shifting Sand's Chow Hall	225	1
325	Oasis	Not Required-Oil and Grease not used	0
787	BX	225	1
223	McDonald's	225	2
761	Golf Club-Apache Mesa	225	1
468	Bowling Center	225	2
531	Officer's Club	225	1

5.29 Product Distribution Tanks

There are numerous maintenance operations on HOLLOMAN AFB that utilize new petroleum products (e.g., motor oil, and automatic transmission fluids). These products are stored in steel 60-gallon horizontal tanks. Eight to ten of these tanks are stacked two high in racks. All of the racks are located inside buildings but some areas may not have adequate containment diking. All of these locations do have spill kits and trained personnel.

Base personnel are currently scoping potential changes to the tanks or operations to ensure compliance in these areas.

6.0 CORRECTIVE ACTION PLAN

This SPCC Plan includes several actions that require implementation to ensure compliance. Table 6-1 shows action items that will be taken. Project activities require funding be initiated through the appropriate organization channels using AF Form 332 Base Civil Engineer Work Order Request, DD Form 1391 or other acceptable forms. These request will be inititated within six months after implementation of this Plan. Action items corrected will be documented on Table 6-1 by the appropriate signatories.. .

Table 6-1. Corrective Action Procedures

Construction Requirements	Date Signed	Responsible Party	Signature	Comment
Upgrade grease containers or operation				
Upgrade product distribution tanks or operation				
579-1,2 – Install dike or double walled tank				
830 – Install dike or double walled tank				
889-1,2,3,4 – Install dike or double walled tank				

Appendix A

SPCC Regulated Containers

Bldg No.	Container ID or Tank. No.	Capacity (gal)	Material of Construction	Install Date	Product Stored	Secondary Containment Type	Service
15	1	3,880	Steel	1967	Diesel	Dike	Base Clinic
29	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
33	1	12,000	Steel	2000	Gasoline	Double-Walled	AAFES
33	2	12,000	Steel	2000	Gasoline	Double-Walled	AAFES
33	3	12,000	Steel	2000	Gasoline	Double-Walled	AAFES
33	4	165	Steel	2001	Waste Product	Building	AAFES
33	5	250	Steel	Unknown	Waste Product	Double-Walled	AAFES
35	1	240	Steel	Unknown	Diesel	Double-Walled	Generator
51	1	2,000	Steel	Unknown	Diesel	Double-Walled	Generator
54	1	385	Polyethylene	Unknown	Waste Product	None	CE Maint.
54	2	385	Polyethylene	Unknown	Waste Product	None	CE Maint.

54	3	385	Polyethylene	Unknown	Waste Product	None	CE Maint.
55	1	N/G	Steel	Unknown	Diesel	Double-Walled	Generator
137	1	20,000	Steel	1993	Bio-Diesel	Dike	Mobile Equipment Fueling
137	2	20,000	Steel	1993	Gasoline	Dike	Mobile Equipment Fueling
202	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
221	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
231	1	528	Steel	2004	Waste Product	Double-Walled	Auto Hobby
283	1	3,000	Steel	2004	Gasoline	Double-Walled	Aero Club
286	1	385	Polyethylene	1998	Waste Product	None	GAF
287	1	300	Steel	1995	Diesel	Dike	GAF Deluge Pumps
287	2	300	Steel	1995	Diesel	Dike	GAF Deluge Pumps
287	3	300	Steel	1995	Diesel	Dike	GAF Deluge Pumps
288	1	1000	Steel	Unknown	Diesel	Double-Walled	Generator
295	1	385	Polyethylene	2001	Waste Product	None	GAF
296	1	120	Steel	Unknown	Diesel	Double-Walled	Generator
304	1	300	Steel	Unknown	Diesel	Double-Walled	Generator

304	1	528	Steel	2000	Diesel	Double-Walled	Used Oil
309	1	528	Steel	2004	Waste Product	Double-Walled	AGE
317	1	2000	Steel	Unknown	Diesel	Double-Walled	Generator
317	2	280	Steel	Unknown	Diesel	Dike	Generator
572	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
577	1	300	Steel	Unknown	Diesel	Double-Walled	Generator
579	1	500	Steel	Unknown	Diesel	Building	Fire Water Pump
579	2	500	Steel	Unknown	Diesel	Building	Fire Water Pump
639	1	5,000	Steel	1978	JP-8	Dike	T-38 Test Cell
642	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
684	1	180	Steel	Unknown	Diesel	Double-Walled	Generator
685	1	180	Steel	Unknown	Diesel	Double-Walled	Generator
688	1	180	Steel	Unknown	Diesel	Double-Walled	Generator
689	1	180	Steel	Unknown	Diesel	Double-Walled	Generator
702	16	10,000	Steel	1954	Diesel	Dike	POL Yard
702	18	12,000	Steel	1943	Gasoline	Dike	POL Yard
702	19	12,000	Steel	1943	Diesel	Dike	POL Yard
702	20	12,000	Steel	1954	Diesel	Dike	POL Yard

702	23	12,000	Steel	1969	Diesel	Dike	POL Yard
702	1	396	Steel	2001	Waste Product	Double-Walled	POL Yard
702	2	750	Steel	Unknown	Diesel	Double-Walled	Generator
740	1	1500	Steel	Unknown	Diesel	Double-Walled	Generator
756	1	4000	Steel	Unknown	Diesel	Double-Walled	Generator
756	2	100	Steel	Unknown	Diesel	Double-Walled	Generator
787	1	180	Steel	Unknown	Diesel	Double-Walled	Generator
800	1	528	Steel	Unknown	Waste Product	Double-Walled	Jet Engine Maint.
812	1	100	Steel	Unknown	Diesel	Double-Walled	Generator
828	1	6,000	Steel	Unknown	JP-8	Dike	AGE
828	2	6,000	Steel	Unknown	JP-8	Dike	AGE
828	3	6,000	Steel	Unknown	JP-8	Dike	AGE
830	1	137	Steel	Unknown	Diesel	None	Fire Water Pump
844	1	528	Steel	2004	Waste Product	Double-Walled	West Area Vehicle Maint.
850	1	300	Steel	Unknown	Diesel	Double-Walled	Generator
863	1	2000	Steel	Unknown	Diesel	Double-Walled	Generator
864	1	750	Steel	Unknown	Diesel	Double-Walled	Generator

869	1	350	Steel	Unknown	Diesel	Double-Walled	Generator
871	6	50,000	Steel	Unknown	JP-8	Dike	POL
871	7	50,000	Steel	Unknown	JP-8	Dike	POL
871	8	50,000	Steel	Unknown	JP-8	Dike	POL
871	9	50,000	Steel	Unknown	JP-8	Dike	POL
871	1	750	Steel	Unknown	Diesel	Double-Walled	Generator
889	1	300	Steel	Unknown	Diesel	None	Pump Station
889	2	300	Steel	Unknown	Diesel	None	Pump Station
889	3	300	Steel	Unknown	Diesel	None	Pump Station
889	4	300	Steel	Unknown	Diesel	None	Pump Station
892	1	750	Steel	Unknown	Diesel	Double-Walled	Generator
892	2	750	Steel	Unknown	Diesel	Double Walled	Generator
895	1	1600	Steel	Unknown	Diesel	Steel Dike	Generator
901	1	528	Steel	2004	Waste Product	Double-Walled	Bear Base
901	2	528	Steel	2004	Waste Product	Double-Walled	Bear Base
906	3	500	Steel	Unknown	Gasoline	Dike	Bear Base
906	4	4,000	Steel	Unknown	Diesel	Double-Walled	Mobile Equipment Fueling
911	1	240	Steel	Unknown	Diesel	Double-	Generator

						Walled	
933	1	5,250	Steel	1990	Diesel	Dike	Bear Base
1006	1	120	Steel	Unknown	Diesel	Double-Walled	Generator
1051	1	265	Steel	Unknown	Diesel	Dike	AGE Alert Pad-Out of Service
1051	2	265	Steel	Unknown	Gasoline	Dike	AGE Alert Pad-Out of Service
1061	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
1062	1	600	Steel	Unknown	Diesel	Double-Walled	Generator
1079	2	500	Steel	2004	Waste Product	Dike	
1093	1	300	Steel	Unknown	Diesel	Double-Walled	Generator
1097	1	240	Steel	Unknown	Diesel	Double-Walled	Generator
1098	1	240	Steel	Unknown	Diesel	Double-Walled	Generator
1108	1	500	Steel	Unknown	Diesel	Double-Walled	Generator
1166	1	1,000	Steel	2001	Gasoline	Double-Walled	
1166	2	2,000	Steel	2001	Diesel	Double-Walled	
1180	1	2,000	Steel	2001	Diesel	Double-Walled	
1219	1	300	Steel	Unknown	Diesel	Double-Walled	Generator

1254	1	2000	Steel	Unknown	Diesel	Double-Walled	Generator
1263	1	300	Steel	Unknown	Diesel	Double-Walled	Generator
1272	1	2000	Steel	Unknown	Diesel	Double-Walled	Generator
1500	1	10,000	Steel	Unknown	Diesel	Dike	Boiler
8000	1	500	Steel	Unknown	Diesel	Building	Generator
11649	1	2,500	Steel	1989	JP-8	Dike	F-117 Test Cell
11649	2	2,500	Steel	1989	JP-8	Dike	F-117 Test Cell
11648	1	2,500	Steel	1992	JP-8	Dike	F-117 Test Cell
12303	10	1,600	Steel	1999	Diesel	Dike	AGE
12303	11	1,600	Steel	1999	Gasoline	Dike	AGE
12303	3	3,000	Steel	1999	JP-8	Dike	AGE
45314	1	385	Polyethylene	2000	Waste Product	None	GAF
72310	24	25,000	Steel	1996	JP-8	Dike	POL GAF
72310	25	25,000	Steel	1996	JP-8	Dike	POL GAF
72310	26	25,000	Steel	1996	JP-8	Dike	POL GAF
72310	27	25,000	Steel	1996	JP-8	Dike	POL GAF
9001	1	300	Steel	Unknown	Diesel	Double-Walled	Generator
702	14	630,000	Steel	2000	JP-8	Dike	POL
702	22	841,179	Steel	2000	JP-8	Dike	POL

SPCC Regulated Containers

SPCC Regulated Containers (Continued)

Appendix B

Secondary Containment Calculations

Volume Calculations for Secondary Containment Dikes						
Container ID	**Container Capacity**	**Dike Length (feet)**	**Dike Width (feet)**	**Dike Height (feet)**	**Containment Capacity in Gallons**	**Percent Containment Capacity**
6	50,000	113	73	2	123,405	247%
7	50,000	113	73	2	123,405	247%
8	50,000	113	73	2	123,405	247%
9	50,000	113	73	2	123,405	247%
West Area Loading	6,000	145	40	0.5	21,692	362%
14	635,000				**960,593**	151%
16	11,000	100	50	1	37,400	340%
18	12,000	100	50	1	37,400	312%
19	12,000	100	50	1	37,400	312%
20	12,000	100	50	1	37,400	312%
22	866,000				**960,593**	111%
23	12,000	100	50	1	37,400	312%
POL Yard Ground Product Loading	7,500	100	18	**0.25**	3,366	Routes to Catch Basin
POL Yard Catchment Basin	7,500	35	25	4.5	29,453	393%
POL Yard JP-8 Fillstand	6,000	71	42	0.58	13,011	217%
POL YardJP-8 Loading	7,500	240	14	0.67	16,839	225%
POL Yard Truck Parking	6,000	240	175	0.33	103,673	1728%
24	25,000	53	57	2.50	56,493	226%
25	25,000	53	57	2.50	56,493	226%
26	25,000	53	57	2.50	56,493	226%
27	25,000	53	57	2.50	56,493	226%
GAF Loading	6,000	78	35	0.50	10,210	170%
136-1	20,000	50	20	3	22,440	112%
136-2	20,000	50	20	3	22,440	112%
GOV Station Loading	7,500	120	18.5	0.5	8,303	111%
283	500	22	12	0.30	592	118%
639	5,000	30	22	1.5	7,405	148%
828-1	6,000	26	42	1	8,168	136%
828-2	6,000	26	42	1	8,168	136%
828-3	6,000	26	42	1	8,168	136%

Volume Calculations for Secondary Containment Dikes (Cont)						
Container ID	**Container Capacity**	**Dike Length (feet)**	**Dike Width (feet)**	**Dike Height (feet)**	**Containment Capacity in Gallons**	**Percent Containment Capacity**
844	750	11	7	1.83	1,056	141%
906-1	1,200	20	16	2	4,787	399%
906-2	1,200	20	16	2	4,787	399%
906-3	1,200	20	9	2	2,693	224%
933	5,250	24	24	1.67	7,181	137%
1062	300	7	4.5	1.5	353	118%
1079-1	265	8	5	1.17	349	132%
1079-2	500	16	6	1.17	838	168%
1079-3	500	16	6	1.17	838	168%
1080-1	600	22	29	0.5	2,386	398%
1080-2	600	22	29	0.5	2,386	398%
1080-3	600	22	15	0.5	1,234	206%
11648	5,000	30	30	1.5	10,098	202%
11649-1	3,400	27	12	**1.63**	3,950	116%
11649-2	5,000	30	30	1.5	10,098	202%
12112	10,000	23	16	4	11,011	110%

Note that **bolded** measurements were adjusted to account for additional containment volume in non-rectangular dikes. Also, the containment volume for Tanks 14 and 22 are based on a survey by 49 CES personnel.

Appendix C

Substantial Harm Checklist

The following Substantial Harm Checklist indicates that HOLLOMAN AFB is required to maintain a Facility Response Plan (FRP). HOLLOMAN AFB maintains the FRP in a separate document.

Facility Name: **Holloman Air Force Base, 49 CES/CEAN**
Facility Address: **550 Tabosa Avenue, HOLLOMAN AFB, NM 88330-8458**

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

   Yes _____ No x

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

   Yes _____ No x

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to 40 CFR 112 or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

   Yes x No _____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

   Yes _____ No x

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

   Yes _____ No x

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature: _____ Date: _____

Name: _____
Title: _____

Appendix D

Discharge Report to US EPA Regional Administrator

EarthTech
A tyco International Ltd. Company

Amendment of SPCC Plans by Regional Administrator, per 40 CFR 112.4(a)

Facility name and location		
Name(s) of the owner or operator of facility		
Date and year of initial facility operation		
Maximum storage or handling capacity of the facility & normal daily throughput		
Cause(s) of spill, including a failure analysis of system or subsystem in which the failure occurred		
Corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements		
Additional preventive measures taken or contemplated to minimize the possibility of recurrence		
Provide the following:		
Task Completed		**Comments**
☐	**Description of facility, including maps, flow diagrams, and topographical maps**	
☐	**The names of individuals and/or organizations who have also been contacted and the time contacted**	
☐	**A complete copy of the SPCC Plan with any amendments**	

Appendix E

Spill Prevention Training Curriculum

Spill Prevention, Control, and Countermeasure Training
HOLLOMAN AFB

1. Applicable Regulations
    A. 40 CFR 109: Contingency Plans
    B. 40 CFR 110: Discharge of Oil
    C. 40 CFR 112: Oil Pollution Prevention
    D. 40 CFR 279: Management of Used Oil
    E. 40 CFR 280: Underground Storage Tanks
    F. 20.5 NMAC: Petroleum Storage Tanks

2. SPCC Plan Overview
    A. PE Certification
    B. Commander Endorsement
    C. Applicability
    D. General Requirements
    E. Container Area Specific Requirements

3. Response Procedures
    A. Spill Levels: <5 gallons, >5 gallons or Anything to Streambeds
    B. Spill Reporting Forms
    C. Spill Kit Locations
    D. Fire Department Capabilities

4. Shop Specific Procedures
    A. Product Handling
    B. Equipment Operation and Maintenance
    C. Container Inspection and Testing

5. Base Spill History

Appendix F

Spill History

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
12-Jan-98	Diesel fuel	about. 80 gal	Faulty guage on equipment
12-Jan-98	JP-8	10 gal.	Faulty hook-up from truck to storage tank
19-Jan-98	Motor oil	5 gal.	Changing oil outside on the street
21-Jan-98	JP-8	about. 15 gal.	AGE Failure
22-Jan-98	JP-8	60 gal	4209—3 - Case #, faulty valve.
05-Mar-98	Diesel fuel	4 gal	Operator error
30-Mar-98	Diesel fuel	0.5 gal.	Leaking vehicle
10-Apr-98	JP-8	6 gal	Faulty air separator
13-Apr-98	Diesel fuel	1 gal	Malfunctioning pump
13-Apr-98	Diesel fuel	1 gal	Leaking pipe
17-Apr-98	Motor oil	< 1 gal	Unknown.
11-May-98	Gasoline	4 gal	Container holding Gasoline knocked over.
23-Jun-98	Diesel fuel	5 gal	Leaking vehicle
26-Jun-98	Diesel fuel	< 5 gal	Unknown,
02-Jul-98	Oil	5 quarts	Vehicle accident. Vehicle drove into bldg. Damaging oil pan.
07-Jul-98	Used oil	1 gal	Occupant placed oil in dumpster. oil spilled when contractor emptied dumpster.
08-Jul-98	JP-8	< 5 gal	Faulty valve.
14-Jul-98	JP-8	<5 gal	Changing nozzle on equipment.
21-Jul-98	JP-8	20-25 gal	Stuck vent valve.
05-Aug-98	JP-8	< 1 gal	Faulty valve
10-Aug-98	JP-8	< 1 quart	Faulty valve
13-Aug-98	JP-8	2 gal	Faulty sump drain valve on the refueling truck.
26-Aug-98	Hydraulic fluid	3 gal	Broken hyd line on Sweeper truck
01-Oct-98	Diesel fuel, hyd fluid, Antifreeze	5 gal.	Dump Truck accident
19-Oct-98	Hydraulic fluid	2 gal.	Hydraulic Line broke on front end loader
19-Oct-98	JP-8	2 gal	Undrained fuel plug pulled
03-Nov-98	JP-8	1-2 gal	Leaking Gasolineket on a fuel transfer line,which goes into a filter system.

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
03-Nov-98	Diesel fuel	3-4 gal	Leaking fuel tank
09-Nov-98	JP-8	25 gal	Operator ran machinery into fuel system. 15 gal ran into storm drain.
12-Nov-98	Hydraulic fluid	1—5 - 2 gal	Overflow from fluid resevoir
17-Nov-98	JP-8	15 gal	Operator Error
18-Nov-98	Diesel fuel	4 gal	Fuel left in hose. When hose was disengaged, fuel spilled out.
30-Nov-98	Gasoline	< 1 gal	Missing Gasoline cap.
07-Dec-98	Diesel fuel	25-30 gal	Day tank from -60 AGE unit overflowed.
25-Nov-98	JP-8	< 1 gal	Leak in deadman assembly
21-Dec-98	JP-8	20 gal	Operator Error during fueling
06-Jan-99	JP-8	2 gal	Fuel Gasolineket broke
14-Jan-99	Transmission fluid	< 1 gal	Ruptured transmission hose
25-Jan-99	Diesel fuel	<1 gal	Unknown
26-Jan-99	JP-8	<1/2 qt	Mechanical failure
26-Jan-99	Diesel fuel	1-2 gal	Leaking portable heaters
02-Feb-99	Hydraulic fluid	< 5 gal	Broken hydraulic line to forks
08-Feb-99	Antifreeze/Engine Oil	< 1 gal	Vehile accident
11-Feb-99	JP-8	4 gal	Mechanical failure of automatic valve
12-Feb-99	Lightweight Oil	5 gal	Unknown
16-Feb-99	JP-8	<1 gal	Leak on top of tank.
24-Feb-99	Hydraulic fluid	6 gal	hydraulic line on excavator broke
03-Mar-99	Gasoline	5 gal	Gasoline was in container in back of pickup. Container leaked and spilled out of bed of truck.
16-Mar-99	Unleaded Fuel—5 - 8 gal	Pumping machine component failure (leaking hose).	
13-Apr-99	Hydraulic fluid	5 gal	Broken hydraulic line on forklift
21-Apr-99	Hydraulic fluid	10 gal	Broken hydraulic line on refuse truck.
19-Apr-99	Diesel fuel	20 gal	Leaking pipes
13-May-99	Gasoline	about 4 gal	leaking fuel tank
19-May-99	Used Oil	About 3 quarts	dumped into a dumpster
27-May-99	Lubricating grease	1 qt	unknown
01-Jun-99	JP-8	3 gal	Ruptured hose. Defected equipment.
18-Jun-99	Transmission fluid	1.5 gal	transmissi“n "er”or" - ????
12-Jul-99	Oil	1 qrt	Container leak
13-Jul-99	JP-8	10 gal	faulty nozz—e - installing new valve
14-Jul-99	Transmission fluid	1.5 gal	transmission le—k - pov

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
18-Aug-99	JP-8	10 gal	Malfunction during aircraft refueling
18-Aug-99	Antifreeze	2 gal	leaking car
19-Aug-99	JP-8	39 gal	valve to product recovery tanks not closed tight
20-Aug-99	Motor oil	2 gal	AGE malfunction
27-Aug-99	Diesel fuel	2 gal	Gasoline tank rupture from unknown vehicle
02-Sep-99	Mineral Oil	20 gal	Transformers got hit by lightning. (Transformer seri'l#'s: 693013927, 693013924, and 693013926 all tested to be <1 ppm PCB)
07-Sep-99	JP-8	3 gal	broken seal on fuel filter system
14-Sep-99	Antifreeze	4 gal	Broken hose
16-Sep-99	JP-8	3 gal	unknown
25-Oct-99	Diesel fuel	about 15 gal	contractor driving dump truck tore the fuel supply line out from under the truck while unloading - drove toward the back gate, about 4 miles, leakin
14-Dec-99	Transmission fluid	1 cup	vehicle accident
09-Feb-00	Compressor oil	10 quarts	loose cap
11-Jan-00	JP-8	50 gal	defueli—g - unexpected build up of air(?)
27-Jan-00	JP-8	about 10 gal	bowser broke
14-Mar-00	JP-8	10 gal	Failed value
13-Sep-00	JP-8	20 gal	Valve o-ring defective
10-May-04	Unleaded Fuel	Appx. 6 gal	Gasoline tank in vehicle had a hole causing it to leak
14-Feb-07	Hydraulic fluid	about. 1 gal (5ft diam.)	Hydraulic fluid leaked from F4 drone after it took a barrier for annual barrier test
10-Apr-00	JP-8	2 gal	human error
25-Apr-00	JP-8	20 gal	human err—r - lack of training
30-Apr-00	Antifreeze	3 gals	unknown… however combined with H2O from sprinklers to make mixture at curb
11-May-00	JP-8	2500 gals	Faulty impeller on pump of truck
24-May-00	Antifreeze—2 - 3 gal	truck leaking	
30-May-00	Hydraulic fluid	1 gal	Broken line on Pneumatic Roller
31-May-00	Hydraulic fluid	5 gals	Broken hydraulic line on fork lift
14-Jun-00	JP-8	5 gal	Coupling on fuel truck used in 2500 gal fuel spill was damaged and leaked while fuel was being emptied
15-Jun-00	Hydraulic fluid	3-5 gal	broken hydraulic line
22-Jun-00	Diesel fuel	5 gal	Gravity feed overflow from fuel buffalo to generator
17-Jul-00	JP-8	5-10 gals	Airplane refueling spill due to human error
10-Aug-00	Diesel fuel	4-5 gals	Ruptured fuel line on container forklift

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
No date	JP-8	20 gal	Valve shut down at inlet to tank during pipeline receipt to tank 22. Fuel sprayed from PRVs. On Filter Separator pad and containment area gravel.
15-Aug-00	JP-8	1 gal	valve malfunction
30-Aug-00	JP-8	2 gal	Seal broke
30-Aug-00	JP-8	10 gal	valve malfunction
13-Sep-00	JP-8	20 gals	Valve o-ring defective
10-Oct-00	Gasoline	about 5 gal	nozzle valve failed to shut off
11-Oct-00	JP-8	about 8 gal	transfer pump to west side leaked
11-Oct-00	JP-8	200 lbs	aircraft leak
16-Oct-00	JP-8	<1 gal	hose on fuel truck ruptured
19-Oct-00	Diesel fuel	3 gal	faulty valve
20-Oct-00	JP-8	about 4 gal	transfer line leak
06-Nov-00	JP-8—3 - 5 gal	fuel cock broke off and sprayed fuel	
06-Nov-00	JP-8	about 2 gal	truck leaked from fuel hose
16-Nov-00	JP-8	5 gal	Pressure filter separator seals leaked.
06-Dec-00	JP-8	25 gal	Jet vented fuel automatically
08-Jan-01	JP-8	5 gal	fuel truck leak from fuel hose
12-Jan-01	JP-8	80 gal	Floor sweeper broke off pressure valve.
12-Jan-01	JP-8	15 gal	F117A leak
02-Feb-01	Diesel fuel	<200 gal	equipment operator hit line to AST unknowing—y - he did not know the lines were live
09-Feb-01	JP-8	11 gal	a seal on a service line broke during fueling operations
23-Feb-01	Antifreeze	about. 2 gal	Car accident
26-Feb-01	Hydraulic fluid	3 gal	equipment with slow leak was left over weekend with drip p—n - pan overflowed
01-Mar-01	JP-8	50 gal	not sure
13-Mar-01	JP-8	50 gal	standard refueling mishap
21-Mar-01	Gasoline	1 gal	leaky tru—k - amn performing maintenance in parking lot was cited by'sp's
16-Apr-01	Diesel fuel	2 gal	Commercial truck driver failed to keep hose upright after disconnecting from truck. Normal procedure allows for fuel to be pumped back into the tank.
30-May-01	JP-8	about. 5 gal.	Unknown
13-Jul-01	JP-8	5-10 gal	mechanical fail—e--leak from truck
19-Jul-01	AFFF	abou' 3''10' area	accident during truck testing
07-Jul-01	Fuel	3 gal	fuel truck piping

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
6-Aug-01	Oil	1 gal	neglect of pick-up truck with excess oil in the pick up bed
22-Aug-01	JP-8	15 gal	Drive shaft broke
23-Aug-01	JP-8	2-5 gal	QF4 leak
25-Sep-01	JP-8	10 gal	unknown
03-Oct-01	JP-8, Oil (7808, 1010), Hydraulic fluid	2409 g JP-8, 10.5 g 7808, 13.7 g 1010, 23.8 g Hydraulic	QF-4 crash
04-Oct-01	Diesel fuel	12 gal	generator trailer tipped over
10-Oct-01	JP-8	10-12 gal	leaked out of vent on refueling
11-Oct-01	Diesel fuel	1 gal	Spilled during refueling, using a Diesel fuel truck, of forklifts. The fuel squirted out of the forklifts.
04-Nov-01	Oil	1 pint	Leak from parked ATV. Leaked onto concrete —d--completely contained.
10-Dec-01	Hydraulic fluid	2 gal	unknown
20-Feb-02	Diesel fue’	6' ’ 4' area	overflow from filling equipment
27-Feb-02	Transmission fluid	half gal	leaking vehicle
14-Mar-02	Diesel fuel	1 gal	refueling error
04-Jul-02	Power steering fluid	1 Quart	Semi Broke Tractor Trailer broke power steering line
11-Jul-02	Antifreeze	1 quart	Broken car radiator
24-Jul-02	JP-8’10’’10' area	Jet leaking from vent	
25-Jul-02	JP-8	1.5 gal, 4x8 feet	overflow tube on navy t-34 aircraft
07-Aug-02	Oil	5 gal	fork lift line broke
11-Sep-02	JP-8	25 gal	Hose came off fueling connection
12-Sep-02	Hydraulic fluid	130 gal	Borken Hydraulic line
23-Feb-01	Diesel fuel	1 gal	hose fell on ground
15-Oct-02	JP-8	50-60 gal	REFUELING SHUT OFF VALVE DID NOT OPERATE
10-Oct-02	Hydraulic fluid	1 gal	unknown, suspect leak from hydraulic lift for trash bins
01-Nov-02	Diesel fuel	200 gal	Faulty valve
21-Dec-02	JP-8	300 gal	Overturned fuel truck
26-Jun-02	Hydraulic fluid	15 gal	DISCONNECTED HYDRAULIC FUEL LINES
26-Jun-02	Hydraulic fluid	15 gal	Disconnect hose lines from cargo lift
08-Jan-03	JP-8	30-40 gal	TBD
23-Jan-03	JP-8	50 gal	Stuck valve on F-117
04-Feb-03	Air Comp Oil	2 gal	Compressor fill over
28-Feb-03	Diesel fuel, Oil	1 gal diesel fuel, 1 quart Oil	overturned steamroller

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
21-Mar-03	JP-8	1 gal	overflow valve leak
13-Mar-03	JP-8	15 gal	leaking valve in aricraft
24-Mar-03	Antifreeze	1 gal	Accident
02-Apr-03	Oil	1/2 quart	leaked from car
23-May-03	Gasoline/Oil	2 gl	military personnel POV truck parked and leaking oil and Gasoline
22-May-03	Diesel fuel	1 gal	Refrigerant Delivery Truck leaked fuel
19-May-03	Hydraulic Oil	+20 gal	Equipment breakdown
17-Jun-03	JP-8	10 gal	Overflow from filling
08-Jul-03	JP-8	15 gal	overflow
07-Aug-03	JP-8	10 gal	Hydraulic line/pump not shut off
13-Aug-03	Oil	<gal	overflow valve
08-Oct-03	JP-8	20 gal	Vented fuel
02-Dec-03	JP-8—5 - 7 gals	Technician filled above the fill line the the dash 8 tank. The temperature rose in the afternoon and cause the fuel to expand, came out of overflow	
10-Dec-03	JP-8	25 gal	Faulty Fuel Valve in the aircraft.
15-Dec-03	JP-8	2 gal	Hose dead man spilt, spayed fuel all over
12-Jan-04	JP-8	20 gals	F-117 vented fuel during refueling
15-Jan-04	JP-8	1100 gals	desembled coupling without a valve in place.
01-Mar-04	MoGasoline	10 gals	The operator filling the fuel tanks over filled the tank and the Gasoline came out the overflow before he shut off the truck pumps
11-Mar-04	Motor oil	30 quarts	Losse drain plug on tractor trailer being used for Phase I exercise
23-Mar-04	Fuel	2 gals	Portable heater leaking fuel
30-Mar-04	JP-8	8-10 gals	Valve stuck open during refueling.
09-Apr-04	Deisel fuel	3 gal	Generator leak
23-Apr-04	Gasoline	1 gal	Motorcycle on its side spilled Gasoline
23-Apr-04	Gasoline	< 1 gal	Minor Motorcycle accident
30-Apr-04	Gasoline	< 1 gal	Leak was from Motorcycle
10-May-04	Gasoline	4 gals	Gasoline tank leaked.
03-Jun-04	JP-8	10 gal	Cause during refueling
16-Sep-04	fuel	1-2 gal	overflow during refueling

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
22-Sep-04	Unleaded Fuel	2 gal	Fuel Leak from GOV Vehicle
30-Aug-04	Oil	1-2 gal	Gov Vehicle
30-Sep-04	Diesel fuel	< 1 gal	GOV vehicle break down
27-Oct-04	Fuel	10 gal	Residual from refueling
28-Oct-04	JP-8	3 gal	Filling a mobile heater and valve was not shut.
03-Nov-04	Lubrirca—t - transmission	1/2 quart	Leak in the transmission of active duty members old pick up truck
05-Nov-04	JP-8	2 gal	F-4 drone was landing with problems and dumped fuel.
29-Nov-04	Gasoline	4 gal	An individual filling up and the automatic shut-off valve did not work.
01-Dec-04	Tar/Oily substance/unknown-5 gal bucket	1/2 gal	Unknown person left a full 5 gal bucket of a thick tar/ oily substance. About a 1/2 gal was spilled on the ground.
06-Dec-04	JP-8	15 gals	Unknown
17-Dec-04	JP-8	4 gals	Aircraft was running and about to taxi out when it started leaking fuel.
07-Jan-05	Unleaded Fuel	6-10 gal	Nozzle on fuel pump d'dn't release.
07-Jan-05	Antifreeze	2 gal	Leaking pump outside of the condensing unit area
10-Jan-05	JP-8	4-5 gal	A broken fuel seal on the aircraft caused the JP-8 to overflow shortly after the aircraft had been fueled.
21-Jan-05	JP-8	40 gals	Spill during replaci7nadvertfer vavle on aircraft
24-Jan-05	JP-8	6 gals	Vapor lock during refuel
25-Jan-05	JP-8	5 gals	Inspection on H2O drain on F/S
28-Feb-05	Oil, Antifreeze, Hydrolic Fluid	13 gals Oil, 25 gals Antifreeze, 1 gal Hyro fluid	Engine break
12-Apr-05	JP-8	12 gals	1"2 " valve busted from the fuel meter on the deactivated fueling system
15-Apr-05	—P - 8	30	leak on the F-117
05-Jul-05	JP-8	~50 gal	Left fuel tank on, Toronado should shut off when full, it failed and fuel started spilling out of fuel point.
07-Jul-05	JP-8	5-10 gal	Fueling of an F-16.
25-Jul-05	Diesel fuel	70 liters	Diesel fuel compressor was not strapped down on truck.
21-Jul-05	JP-8	20 gal	Drive shefr on refueler tank broke and hit the fuel system pipe.
29-Jul-05	Hydraulic fluid	30 gal	leak on Grove 90-ton crane
10-Aug-05	JP-8	15 gal	Valve didn't go off during aircraft refueling.
15-Aug-05	JP-8	2 gal	External fuel tank leaking on Toronado.
16-Aug-05	JP-8	5-10 gal	Fuel release manifold was stuck and became unstuck on aircraft pressurization

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
19-Aug-05	JP-8	30 gal	Bad valve on aircraft
27-Sep-05	Diesel fuel and H2O	5-10 gal	Fire suppression pump leaking inside of building. Fittings were leaking.
19-Oct-05	JP-8	10 gal	Hit a dump valve
31-Oct-05	JP-8	15 gal	Fuel valve maintenance malfunction
26-Oct-05	JP-8	15 gal	Aircraft Malfunction
25-Oct-05	JP-8	15 gal	Aircraft Maintenance
01-Nov-05	JP-8	20 gal	F-4 drone catches the cable. The aircraft had a bad vent that released fuel.
23-Nov-05	JP-8	6377 gal	Pantographs Gasolineket degraded causing fuel to spill.
06-Jan-06	JP-8	10 gal	Fuel release due to a faulty valve.
01-Feb-06	JP-8	147 galllons	Pending
09-Feb-06	Diesel fuel	50-60 gal	Contractor punctured underground storage tank.
10-Feb-06	JP-8	30-40 gal	Coupling release from fuel line.
14-Feb-06	JP-8	5 gal	Refueling aircraft leaked.
23-Feb-06	Diesel fuel	10 gal	Fuel line dry rotted and broke.
03-Mar-06	Transmission fluid	1 qt	Car was leaking Transmission fluid.
04-Mar-06	Hydraulic fluid	3 gal	hydraulic line leaking, blew open during use of forklift
09-Mar-06	Transmission fluid	2.5 gal	Due to accident Transmission fluid was released.
03-Apr-06	Hydraulic fluid	1 gal	Toronado in flight emergency.
24-Apr-06	JP-8	5 gal	Accidental Fuel Spill
07-Apr-06	Oil—4 - 5 gal	Leak From Truck	
18-May-06	Hydraulic fluid	1.5 gal	Aircraft malfunction
22-May-06	JP-8	300 gal	Flange on maintenance draw stub failed
22-May-06	Diesel fuel	7 gal	Generator fuel sump valve broke off.
05-Jun-06	Hydraulic fluid	0—5 - 1 gal	Hydraulic system leak on GAF aircraft
13-Jun-06	Lubricating Oil—4 - 5 gal	Seal Failure on Equipment (MC7 Air compressor, Tag #LP11)	
21-Jun-06	JP-8	0.75 gal	Aircraft Fuel Spill
22-Jun-06	JP-8	0.25 gal	Equipment Leak/Inflight Emergency
03-Aug-06	Hydraulic fluid	2 gal	Hydraulic fluid released by F-117A, 805
07-Aug-06	Hydraulic fluid	0.5 gal	Hydraulic System Failure on F-16
11-Sep-06	Hydraulic fluid	1 gal	F-117 actuator nose gear leak
13-Sep-06	JP-8	0.25 gal	F-117 Fuel leak on landing
19-Sep-06	JP-8	5 gal	Overpressured valve
21-Sep-06	JP-8	5 gal	F-117 fuel line leak
13-Oct-06	JP-8	< 1 gal	Slow leaking fuel valve

Date of Spill	Material Spilled	Amount Spilled	Cause of Spill
25-Oct-06	JP-8—2 - 2.5 gal	Aircraft fuel leak during taxiing	
01-Nov-06	Hydraulic fluid	5 gal	ruptured hydraulic line on GAF AGE equipment
14-Dec-06	Hydraulic fluid	1-2 gal (9ft diameter)	aircraft blew hydraulic line whle taxiing.
15-Dec-06	Battery Acid	1/2 gal	batteries fell from back of truck.
04-Jan-07	JP-8	10-15 gal	leak from right fuel pod on GAF Tornado
23-Jan-07	JP-8	5 gal	fuel line w9nadvertentlytly dislodged during routine maintenance.
05-Feb-07	Hydraullic Fluid	about 5 gal ’10' x’20' puddle)	mechanical failure
07-Feb-07	JP-8	< one gal	small fuel spill from aircraft
21-Feb-07	Hydraulic fluid	about. 2 quarts (2ftx4ft puddle)	a visiting F-18 a/c took a barrier on rwy 34 causing a small leak
14-Feb-07	Hydraulic fluid	15 gal	Hydraulic hose on 60 ton RT760 crane burst.
28-Feb-07	Diesel fuel	10-15 gal	Return line broke
21-Mar-07	JP-8	100 gal	Failure of pipeline expansion coupling northeast of Building 21819.
28-Mar-07	JP-8	about 25 gal	T-38 on a flatbed vented ~25 gal.
30-Mar-07	JP-8	10-15 gal	Fuel cell in a/c 828 became clogged and fuel vented out of aft.
13-Apr-07	Antifreeze	2 gal	Car accident caused a vehicle to leak coolant.
01-May-07	Barrier Grease, Hydraulic fluid	1 Quart Barrier Grease, 4oz. Hydraulic fluid	Barrier Testing on Runway04, 6’00' remaining mark.

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Appendix G

Facility Response Equipment

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Facility Response Equipment List	
Date of Last Update:	**August 2007**
1. Pumps	Type: Widen Model M8, Pump" 2" inlet and outlet Number: 1 Capacity: Flows to 155 gallons per minute (GPM) Daily Effective Recovery Rate: 1063 barrels or 44,640 gallons Storage Location(s): CE Compound/Liquid Fuels Storage Area
2. Boom	Type: Containment Boom Number: 1 Size (length): 100 feet Storage Location: POL Bulk Fuels Yard
3. Sorbents	Type: Various absorbent pads, absorbent material Year Purchased: As needed Amount: 10 boxes (100 pads/box) Storage Location(s): Building 1266
4. Hand Tools	Type: Shovels, Rakes Quantity: 4 each Storage Location: CE Compound
5. Communication Equipment	Base responders are on one of three radio frequencies in an emergency -Civil Engineer, Fire/Crash, or Security Forces. The Incident Commander and Fire Chief are capable of and remain in contact (cell phone and radio) with the Command Post and/or Disaster Control Group at all times during an emergency.
6. Fire Fighting and Personnel Protective Equipment	Fully Equipped Structural and Aircraft Fire Fighting 3-Station Fire Department with fully trained and qualified personnel located on Base. Equipment: - 2 pumpers - 6 crash trucks - 2 tankers - 2 rescue vehicles - 1 23 ft HAZMAT trailers

Facility Response Equipment List	
7. Other (e.g., Heavy Equipment, Boats and Motors)	Type: Grimmer Schmidt 100 g Air Compressor Quantity: 1 Storage Location: Building 1266/Liquid Fuels Storage Area Type:" 2" hoses Year: N/A Quantity: 200' total length Storage Location: Building 1266/Liquid Fuels Storage Area Type: R-11 Refueling Unit, 6,000 gallon capacity Quantity: 4 Storage Location: Fuels Management Flight Heavy Equipment: - 2 front end loaders - 2 5-ton dump trucks - 2 10-ton dump trucks - 1 backhoes - 1500 gal water tanker

Appendix H

Emergency Generator Inventory

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Emergency Generator Inventory

Bldg No.	Container ID or Tank. No.	Capacity (gal)	Material of Construction	Install Date	Product Stored	Secondary Containment Type
29	1	500	Steel	Unknown	Diesel	Double-Walled
35	1	240	Steel	Unknown	Diesel	Double-Walled
51	1	2,000	Steel	Unknown	Diesel	Double-Walled
55	1	N/G	Steel	Unknown	Diesel	Double-Walled
202	1	500	Steel	Unknown	Diesel	Double-Walled
221	1	500	Steel	Unknown	Diesel	Double-Walled
288	1	1000	Steel	Unknown	Diesel	Double-Walled
296	1	120	Steel	Unknown	Diesel	Double-Walled
304	1	300	Steel	Unknown	Diesel	Double-Walled
317	1	2000	Steel	Unknown	Diesel	Double-Walled
317	2	280	Steel	Unknown	Diesel	Dike
572	1	500	Steel	Unknown	Diesel	Double-Walled
577	1	300	Steel	Unknown	Diesel	Double-Walled
642	1	500	Steel	Unknown	Diesel	Double-Walled
684	1	180	Steel	Unknown	Diesel	Double-Walled
685	1	180	Steel	Unknown	Diesel	Double-

						Walled
688	1	180	Steel	Unknown	Diesel	Double-Walled
689	1	180	Steel	Unknown	Diesel	Double-Walled
702	2	750	Steel	Unknown	Diesel	Double-Walled
740	1	1500	Steel	Unknown	Diesel	Double-Walled
756	1	4000	Steel	Unknown	Diesel	Double-Walled
756	2	100	Steel	Unknown	Diesel	Double-Walled
787	1	180	Steel	Unknown	Diesel	Double-Walled
812	1	100	Steel	Unknown	Diesel	Double-Walled
850	1	300	Steel	Unknown	Diesel	Double-Walled
863	1	2000	Steel	Unknown	Diesel	Double-Walled
864	1	750	Steel	Unknown	Diesel	Double-Walled
869	1	350	Steel	Unknown	Diesel	Double-Walled
871	1	750	Steel	Unknown	Diesel	Double-Walled
892	1	750	Steel	Unknown	Diesel	Double-Walled
892	2	750	Steel	Unknown	Diesel	Double Walled
895	1	1600	Steel	Unknown	Diesel	Steel Dike
911	1	240	Steel	Unknown	Diesel	Double-Walled
1006	1	120	Steel	Unknown	Diesel	Double-Walled
1061	1	500	Steel	Unknown	Diesel	Double-Walled
1062	1	600	Steel	Unknown	Diesel	Double-Walled
1093	1	300	Steel	Unknown	Diesel	Double-Walled
1097	1	240	Steel	Unknown	Diesel	Double-

						Walled
1098	1	240	Steel	Unknown	Diesel	Double-Walled
1108	1	500	Steel	Unknown	Diesel	Double-Walled
1219	1	300	Steel	Unknown	Diesel	Double-Walled
1254	1	2000	Steel	Unknown	Diesel	Double-Walled
1263	1	300	Steel	Unknown	Diesel	Double-Walled
1272	1	2000	Steel	Unknown	Diesel	Double-Walled
8000	1	500	Steel	Unknown	Diesel	Building
9001	1	300	Steel	Unknown	Diesel	Double-Walled

Appendix I

Transformer Inventory

Holloman Inactive Transformers

Holloman	Serial	Phase	KVA	Mounting	Status
NF-2	841057345	Single Phase	25	Pole	Inactive
WS3-16	N197869YM	Single Phase	25	Pole	Inactive
WS3-17	N197867YM	Single Phase	25	Pole	Inactive
WS3-18	N197868YM	Single Phase	25	Pole	Inactive
WS2-56	2763094-8	Single Phase	50	Pole	Inactive
WS2-57	1762289-15	Single Phase	50	Pole	Inactive
WS2-58	2763091-10	Single Phase	50	Pole	Inactive
WS2-11	62SF2453	Single Phase	75	Pole Mount	Inactive
WS2-12	62SF2454	Single Phase	75	Pole Mount	Inactive
WS2-13	62SF2450	Single Phase	75	Pole Mount	Inactive
MF-142	16368811	Single Phase	50	Padmount	Inactive
MF-96	1.602E+09	Single Phase	25	Pole	Inactive
MF-94	1.602E+09	Single Phase	25	Pole	Inactive
MF-95	1.602E+09	Single Phase	25	Pole	Inactive
MF-99	6478572	Single Phase	10	Pole	Inactive
MF-100	C478574	Single Phase	10	Pole	Inactive
MF-98	6478569	Single Phase	10	Pole	Inactive
H-3	78J806072	Three Phase	300	Padmount	Inactive
MF-105	2082003	Single Phase	25	Pole	Inactive
MF-106	2082002	Single Phase	25	Pole	Inactive
MF-107	2082001	Single Phase	25	Pole	Inactive
MF-108	1249246	Single Phase	5	Pole	Inactive
MF-109	12499243	Single Phase	5	Pole	Inactive
MF-116	12814412	Single Phase	15	Pole	Inactive
MF-117	12814413	Single Phase	15	Pole	Inactive
MF-118	12814411	Single Phase	15	Pole	Inactive
MF-125	21846	Single Phase	15	Pole	Inactive
MF-126	63K6829	Single Phase	15	Pole	Inactive
MF-127	63K4604	Single Phase	15	Pole	Inactive

Holloman Active Transformers

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ID #	Serial #	Phase	KVA	Mounting	Status		Buildings Served
NF-10	D099813R	Single	10	Pole	Active		
NF-34	S1A032394	Single	37.5	Pole	Active		
WS3-	N581562-YEW	Single	25	Pole	Active		
MF-36	N23U945TA	Single	167	Pole Mount	Active		
MF-56	89A362072	Single	25	Pole	Active		#1268
WS2-	1762289-12	Single	50	Pole	Active		?
WS2-	1752289-7	Single	50	Pole	Active		?
WS2-	275174-10	Single	50	Pole	Active		?
T-8	D099817R	Single	15	Pole	Active		?
NF-38	98071003	Single	37.5	Pole	Active		1001
NF-37	9871006	Single	37.5	Pole	Active		1001
NF-36	98071005	Single	37.5	Pole	Active		1001
NF-35	683003989	Single	37.5	Pole	Active		1002
NF-40	K040817396	Single	37.5	Pole	Active		1003
NF-42	KU4681739	Single	37.5	Pole	Active		1003
NF-41	KU4081739	Single	37.5	Pole	Active		1003
NF-56	M15594	Three	1000	Padmount	Active		1020
NF-50	1832507-3	Single	100	Pole	Active		1022
NF-49	18325701	Single	100	Pole	Active		1022
06A062454	Single	75	1.6	Active		1022	
06A062451	Single	75	1.6	Active		1022	
NF-51	1832570-2	Single	100	Pole	Active		1022
06A0624	Single	75	1.6	Active		1022	
NF-54	N165726YK	Single	50	Pole	Active		1026
NF-52	1832570-3	Single	100	Pole	Active		1026
NF-53	N165726YK	Single	50	Pole	Active		1026
NF-48	93A264273	Single	37.5	Pole	Active		1028
NF-47	93A264272	Single	37.5	Pole	Active		1028
NF-46	93A264271	Single	37.5	Pole	Active		1028
NF-58	841501414	Single	37.5	Pole	Active		1048,1051,1052,10
NF-59	851004865	Single	37.5	Pole	Active		1048,1051,1052,10
NF-57	851004866	Single	37.5	Pole	Active		1048,1051,1052,10
F-43	PEL-1390	Three	300/336	Padmount	Active		105
NF-5	91990-24	Single	25	Pole	Active		1060
NF-4	91990-10	Single	25	Pole	Active		1060
NF-3	91990-21	Single	25	Pole	Active		1060
NF-24	L9562745FR	Single	37.5	Pole	Active		10,711,079
NF-22	M006622KD	Single	37.5	Pole	Active		10,711,079
NF-23	L847264YFLA	Single	37.5	Pole	Active		10,711,079

NF-32	N90L0SGZ	Single	15	Pole	Active	1072
NF-33	N9040507	Single	15	Pole	Active	1072
NF-31	N90L0320	Single	15	Pole	Active	1072
NF-44	64065072	Single	37.5	Pole	Active	1074,1083A,1084C
NF-45	64065073	Single	37.5	Pole	Active	1074,1083A,1084C
NF-43	6406506	Single	37.5	Pole	Active	1074,1083A,1084C
NF-1	M0S29004	Single	500	Padmount	Active	107,810,791,058
NF-15	775475171	Three	300	Padmount	Active	1080
NF-14	3251-2	Three	500	Padmount	Active	1080
NF-11	A1752A99P	Single	100	Pole	Active	1080
NF-12	74VB94006	Single	100	Pole	Active	1080
NF-13	A1752A99P	Single	100	Pole	Active	1080
NF-19	91A383889	Single	50	Pole	Active	1083
NF-20	87A354979	Single	50	Pole	Active	1083
NF-21	91A383887	Single	50	Pole	Active	1083
NF-26	5F712448	Single	37.5	Pole	Active	1086
NF-27	5F712449	Single	37.5	Pole	Active	1086
NF-25	57F12441	Single	37.5	Pole	Active	1086
NF-29	7519263	Single	75	Pole	Active	1087
NF-30	7519362	Single	75	Pole	Active	1087
NF-28	7318155	Single	75	Pole	Active	1087
NF-18	657-4315	Single	15	Pole	Active	1088
NF-17	698-5321	Single	15	Pole	Active	1088
NF-16	G46785	Single	15	Pole	Active	1088
T-14	365649287	Single	25	Pole Mount	Active	1093
T-12	3.656E+09	Single	25	Pole Mount	Active	1093
T-13	365649387	Single	25	Pole Mount	Active	1093
MF-148	6441553	Single	100	Padmount	Active	1102
MF-143	81A075540	Single	100	Padmount	Active	1102
MF-141	3916183	Single	167	Padmount	Active	1102
MF-140	3916184	Single	500	Padmount	Active	1102
MF-139	3916185	Single	167	Padmount	Active	1102
MF-138	71C5989	Three	300	Padmount	Active	1102
MF-137	69L285	Three	112.5	Padmount	Active	1102
MF-145	81A075542	Single	100	Padmount	Active	1102
MF-144	81A083708	Single	100	Padmount	Active	1102
MF-147	1.532E+09	Single	75	Padmount	Active	1102
MF-152	87156	Single	75	Padmount	Active	1103
MF-153	87158	Single	75	Padmount	Active	1103
MF-154	87153	Single	75	Padmount	Active	1103
MF-134	10520229EQA	Single	25	Pole Mount	Active	1108
MF-135	10520211EQA	Single	25	Pole Mount	Active	1108
MF-136	10520237EQA	Single	25	Pole Mount	Active	1108
F-8	98080706	Single	25	Pole	Active	111
F-9	K289768	Single	25	Pole	Active	111
F-10	98080704	Single	25	Pole	Active	111
MF-150	3.657E+09	Single	50	Padmount	Active	1119
MF-151	3.658E+09	Single	37.5	Pole Mount	Active	1119

MF-149		3.658E+09	Single	50	Padmount	Active		1119
F-4		95A474252	Single	50	Pole	Active		112,114,115
F-3		95A474251	Single	50	Pole	Active		112,114,115
F-2		95A474242	Single	50	Pole	Active		112,114,115
MF-157		71013	Single	50	Padmount	Active		1155
MF-156		71024	Single	50	Padmount	Active		1155
MF-155		71002	Single	50	Padmount	Active		1155
	801038558	Single	25	2	Active		1157	
F-6		10521490EQA	Single	37.5	Pole	Active		116
F-5		10521516EQA	Single	37.5	Pole	Active		116
F-7		10521508EQA	Single	37.5	Pole	Active		116
MF-102		56E2684	Single	25	Pole	Active		1194
MF-114		G6715408	Single	50	Pole	Active		1196
MF-113		G67115406	Single	50	Pole Mount	Active		1196
MF-115		6874661-	Single	50	Pole	Active		1196
MF-103		55C21171	Single	25	Pole	Active		1199
MF-104		62642	Single	25	Pole	Active		1199
F-31		84JD170285	Three	750	Padmount	Active		120,121
F-1		97A203688	Single	10	Pole	Active		121 PERIMETER
MF-21		93A314310	Single	25	Pole	Active		1260
MF-22		93A314307	Single	25	Pole	Active		1260
MF-24		E838622-	Single	50	Pole	Active		1261
MF-29		1889-A	Single	100	Pole	Active		1261
MF-25		E838623-	Single	50	Pole	Active		1261
MF-26		E838619-	Single	50	Pole	Active		1261
MF-28		3679-1	Single	100	Pole	Active		1261
MF-34		880876-A1	Three	1000	Padmount	Active		1261
MF-27		3679-4	Single	100	Pole	Active		1261
MF-31		97A380975	Single	75	Pole	Active		1262
97A380975		Single	75	1.6	Active		1262	
MF-32		23736	Single	75	Pole	Active		1262
MF-30		23737	Single	75	Pole	Active		1262
MF-72		650022671	Three	225	Padmount	Active		1263
MF-51		90NE255-	Single	167	Pole Mount	Active		1265
MF-50		90NE255-	Single	167	Pole Mount	Active		1265
MF-52		90NE255-	Single	167	Pole Mount	Active		1265
MF-50		90NE255001	Single	167	Pole Mount	Active		1265
MF-91		2075362	Single	15	Pole	Active		1266
MF-93		2075359	Single	15	Pole	Active		1266
MF-92		2075358	Single	15	Pole	Active		1266
MF-83		6.83E+09	Single	25	Pole	Active		1269
MF-84		683000947	Single	25	Pole	Active		1269
MF-79		65AG9856	Single	10	Pole	Active		1269
MF-80		C216410	Single	10	Pole	Active		1269
MF-81		65AG4048	Single	10	Pole	Active		1269
MF-82		7320282	Single	25	Pole	Active		1269
MF-16		S-56L1788	Single	37.5	Pole Mount	Active		1270
MF-18		S-56L1735	Single	37.5	Pole Mount	Active		1270

MF-17		S-56L1729	Single	37.5	Pole Mount	Active		1270
MF-1		57E24994	Single	15	Pole Mount	Active		1271
MF-2		57E25011	Single	15	Pole Mount	Active		1271
MF-4		38063064	Single	75	Pole Mount	Active		1271
MF-6		38063314	Single	75	Pole Mount	Active		1271
MF-5		38063062	Single	75	Pole Mount	Active		1271
MF-8		6111418	Single	37.5	Pole Mount	Active		1271
MF-9		58D12516	Single	37.5	Pole Mount	Active		1271
MF-3		3.657E+09	Single	25	Pole Mount	Active		1271
MF-7		57H16055	Single	37.5	Pole Mount	Active		1271
MF-20		1762497-6	Single	15	Pole	Active		1276
MF-75		23819	Single	100	Pole	Active		1280
MF-76		23818	Single	100	Pole	Active		1280
MF-77		23820	Single	100	Pole	Active		1280
MF-19		871049467	Single	25	Pole	Active		1286
F-25		2915692	Single	25	Pole	Active		136,137,194,196
F-27		2915662	Single	25	Pole	Active		136,137,194,196
F-26		2525250	Single	25	Pole	Active		136,137,194,196
H-4		P186166TPC	Three	750/840	Padmount	Active		15
	38063063	Single	75	1.7	Active		1625	
	38063315	Single	75	1.7	Active		1625	
	38063065	Single	75	1.7	Active		1625	
F-29		860976-A1	Three	225	Padmount	Active		193
F-39		93A314302	Single	25	Pole	Active		194
F-38		93A272036	Single	25	Pole	Active		194
F-37		93A314305	Single	25	Pole	Active		194
F-122		337013222	Three	112.5	Padmount	Active		195
F-117		6331672	Single	37.5	Pole	Active		195
F-116		6331673	Single	37.5	Pole	Active		195
F-115		6406505	Single	37.5	Pole	Active		195
F-119		72AM11846	Single	25	Pole	Active		195
F-120		72AM11843	Single	25	Pole	Active		195
F-118		72AM6226	Single	25	Pole	Active		195
M-23		J607495Y70A	Single	25	Pole	Active		2 BLDGS BEHIND
H-1		985656043	Three	300	Padmount	Active		20
98J656043		Three	300	4.38	Active		20	
PB26312317		Single	167	2.6	Active		20,182,019	
G2-25		N652513	Three	300	Padmount	Active		202
PB26312322		Single	250	3	Active		2021,2022,2023,20	
PB26612303		Single	75	2.7	Active		202,520,262,027	
	94046	Single	100	3	Active		202,820,292,030	
PB26312313		Single	167	2.6	Active		2031A-K,2032A-K	
	98093003	Single	167	2.3	Active		20,522,055	
	98093004	Single	167	2.8	Active		20,532,054	
95J989202		Single	100	2.9	Active		205,620,572,058	
95J989225		Single	100	2.9	Active		205,920,602,061	
95J989373		Single	100	2.9	Active		206,220,632,064	
95J996327		Single	75	2.87	Active		2071A/B,2072A/B	

95J996128	Single	75	2.87	Active	2073A/B,2074A/B	
95J996147	Single	75	2.87	Active	2075 EGLIN	
95J990044	Single	100	2.9	Active	2078,2079 EGLIN	
95J989354	Single	100	2.9	Active	2080,2083 EGLIN	
95J990067	Single	100	2.9	Active	2082,2084 EGLIN	
95J989278	Single	100	2.9	Active	2086, 2087,2089	
95J996166	Single	75	2.87	Active	20,882,090	
95J989252	Single	100	2.9	Active	209,520,932,091	
96J206151	Three	112.5	2.08	Active	21	
H-2	965206151	Three	125	Padmount	Active	21
F-104	Q543741-	Three	500	Padmount	Active	21295 GAF HANGER
F-103	Q543738-	Three	500	Padmount	Active	21296 GAF HANGER
F-113	Q543739-	Three	500	Padmount	Active	21297 GAF HANGER
G2-10	881024-A1	Three	500	Padmount	Active	214
881024-A1	Three	500	4.6	Active	214	
G2-24	93A254330	Single	10	Pole	Active	214 PARKING
T-9	1.586E+09	Single	10	Pole	Active	22 SOUTH
G2-27	74AM7783	Single	50	Pole	Active	221
G2-26	74AJ2664	Single	50	Pole	Active	221
G2-28	74AL18656	Single	50	Pole	Active	221
G2-29	989008917	Three	300	Padmount	Active	222
G2-30	13202	Three	300	Padmount	Active	223
G2-31	989008865	Three	1000	Padmount	Active	224
F-50	C39069	Three	300	Padmount	Active	231
G2-14	71AC10336	Single	50	Pole	Active	232
G2-13	70AJ15704	Single	50	Pole	Active	232
G2-12	70AK12876	Single	50	Pole	Active	232
G2-15	Q552593-TYP	Three	75	Padmount	Active	233
F-51	757497	Three	150	Padmount	Active	234 OUT DOOR REC
H-30	G874660-67Y	Single	50	Pole	Active	2508A/B,2510A/B
H-32	73716	Single	50	Pole	Active	2518A/B,2534A/B,
H-6	70294	Single	37.5	Pole	Active	2529A/B,2527A/B,
H-31	Single	37.5	2.2	Active	2532A/B,2530A/B,	
H-33	70259	Single	15	Pole	Active	2536A,2538A,2574
H-28	70267	Single	15	Pole	Active	2540A/B,2538B,25
H-22	73714	Single	50	Pole	Active	2541A/B,2543B,25
H-23	70280	Single	25	Pole	Active	2543A,2539A/B,25
H-24	70277	Single	25	Pole	Active	2549A/B,2551A/B,
H-19	70285	Single	25	Pole	Active	2560A/B,2542A/B,
H-16	70279	Single	25	Pole	Active	2566A/B,2564A/B,
H-25	Single	37.5	2.2	Active	2567A/B,2561A/B,	
H-26	Single	25	2.4	Active	2569A/B,2571A/B,	
H-12	70309	Single	37.5	Pole	Active	2576A,2572A/B,25
H-27	70306	Single	37.5	Pole	Active	2581A/B,2579A/B,
H-15	70278	Single	25	Pole	Active	2586A/B,2584A/B,

H-14	81A103187	Single	25	Pole	Active		2594A/B,2592A/B,
H-13	70293	Single	37.5	Pole	Active		2596A/B,2602A/B,
H-10	70298	Single	37.5	Pole	Active		2607A/B,2605A,26
H-17	70265	Single	15	Pole	Active		2608A/B
H-21	70303	Single	37.5	Pole	Active		2610A/B,2612A/B,
H-5	70296	Single	37.5	Pole	Active		2614A/B,2616A/B,
H-9	70280	Single	15	Pole	Active		2615A/B,2609A/B
H-8	70296	Single	37.5	Pole	Active		2632A/B,2634A/B,
H-7	70300	Single	37.5	Pole	Active		2638A/B,2636A/B,
G2-11	Q519419-TPM	Three	300	Padmount	Active		270
G2-17	P029245-YLY	Single	25	Pole	Active		273
G2-18	P029252-YLY	Single	25	Pole	Active		273
G2-16	P029248-YLY	Single	25	Pole	Active		273
G2-19	95JB375058	Three	500	Padmount	Active		274
F-114	98J709047	Three	112.5	Padmount	Active		279
F-53	59L3290	Single	167	Pole Mount	Active		280
F-52	59L3289	Single	167	Pole Mount	Active		280
F-54	59L3288	Single	167	Pole Mount	Active		280
F-55	59J2457	Single	100	Pole Mount	Active		280
F-56	59H10251	Single	100	Pole Mount	Active		280
F-57	59J11552	Single	100	Pole Mount	Active		280
F-59	P226097-YZA	Single	50	Pole	Active		281
F-63	74AJ2672	Single	50	Pole	Active		281
F-58	2762975-6	Single	50	Pole	Active		281
F-62	74AJ2666	Single	50	Pole	Active		281
F-60	P226094-YZA	Single	50	Pole	Active		281
F-64	74AJ2670	Single	50	Pole	Active		281
F-66	830938-A1	Three	150	Padmount	Active		282
F-67	12887	Three	225	Padmount	Active		282
F-65	71D6478	Three	500	Padmount	Active		283
F-61	237000211	Three	112.5	Padmount	Active		284
F-112	3.867E+09	Three	1000	Padmount	Active		285
F-68	386355095	Three	2000	Padmount	Active		286
F-100	961004917	Single	25	Padmount	Active		287
F-93	Q548384-TVP	Three	300/336	Padmount	Active		288
M-14	86JB616128	Three	750	Padmount	Active		29
F-121	H1388	Three	75	Padmount	Active		293
F-101	Q544033-TRP	Three	1500	Padmount	Active		294
F-102	Q543740-	Three	500	Padmount	Active		295
G2-92	H1386	Three	150	Padmount	Active		296
G2-93	N017269TJSA	Three	75	Padmount	Active		297
G2-94	88JB105087	Three	225	Padmount	Active		300
G2-95	88JB097214	Three	500	Padmount	Active		300,292
G2-90	37007647	Three	300	Padmount	Active		301
G2-91	00C102074	Three	500	Padmount	Active		301
64C10718	Single	167	2.2	Active		302	
64F872	Single	167	2.2	Active		302	
G2-83	64D3985	Single	167	Pole Mount	Active		302

G2-84		64C10718	Single	167	Pole Mount	Active			302
G2-85		64F872	Single	167	Pole Mount	Active			302
	3656510387	Single	50	2.5	Active		302		
	3658380287	Single	50	2.5	Active		302		
	3656510187	Single	50	2.5	Active		302		
64D3985		Single	2.2	2.2	Active		302		
G2-82		3.658E+09	Single	50	Pole	Active			302,306
G2-81		3.657E+09	Single	50	Pole	Active			302,306
G2-80		3.657E+09	Single	50	Pole	Active			302,306
G2-78		N568843-YCW	Single	15	Pole	Active			303
G2-77		N583405-YEW	Single	15	Pole	Active			303
G2-76		N568848-YCW	Single	15	Pole	Active			303
G2-74		62998	Single	25	Pole	Active			304,305
G2-73		894N55112	Single	25	Pole	Active			304,305
G2-75		894N55113	Single	25	Pole	Active			304,305
F-108		81A232969	Single	50	Pole Mount	Active			308,309
F-105		N005595TM	Three	300	Padmount	Active			308,309
F-106		81A201550	Single	50	Pole Mount	Active			308,309
F-107		81A265102	Single	50	Pole Mount	Active			308,309
F-98		65B12109	Single	50	Pole	Active		310N	
F-99		65B12105	Single	50	Pole	Active		310N	
F-97		871036692	Single	50	Pole	Active		310N	
F-70		96A071173	Single	50	Pole	Active		310SE	
F-69		95A474246	Single	50	Pole	Active		310SE	
F-71		95A474244	Single	50	Pole	Active		310SE	
F-95		11920347	Single	50	Pole Mount	Active		310W	
F-94		11920349	Single	50	Pole Mount	Active		310W	
F-96		11920348	Single	50	Pole Mount	Active		310W	
F-74		10521565EQA	Single	50	Pole	Active			311
F-73		10521557EQA	Single	50	Pole	Active			311
F-72		10521540EQA	Single	50	Pole	Active			311
F-92		97J462136	Three	150	Padmount	Active			312
99J752260		Three	750	5.75	Active		314		
F-91		99J952260	Three	750	Padmount	Active			314
G2-88		21026-6	Single	37.5	Pole Mount	Active			315
G2-86		21026-3	Single	37.5	Pole Mount	Active			315
G2-87		21026-11	Single	37.5	Pole Mount	Active			315
G2-69		91V8340	Three	500	Padmount	Active			316
G2-71		Q546082-	Three	1000	Padmount	Active			316
G2-70		237015983	Three	500	Padmount	Active			316
G2-89		P186882TR	Three	300	Padmount	Active			317
G2-72		97J416062	Three	500	Padmount	Active			318
G2-68		83JB885023	Three	500	Padmount	Active			318
G2-22		97A093947	Single	25	Pole	Active			322
G2-21		97A093164	Single	25	Pole	Active			322
G2-20		97A103893	Single	25	Pole	Active			322
G2-23		92K49098	Three	500	Padmount	Active			325
92K49098		Three	500	3.62	Active		325		

F-11		01J223159	Three	750	Padmount	Active		33
G2-46		89J551079	Three	225	Padmount	Active		330
G2-47		89J551109	Three	225	Padmount	Active		331
G2-42		856008874	Three	150	Padmount	Active		333
	37007741	Three	300	5.71	Active		334	
G2-40		37007741	Three	300	Padmount	Active		334
G2-41		FF06024734	Three	300	Padmount	Active		335
FF06024734		Three	300	4.34	Active		335	
G2-38		FTC91014-1	Three	300	Padmount	Active		336
M-105		Q248858-	Three	300	Padmount	Active		337
M-104		FTC90355-3	Three	300	Padmount	Active		338
M-103		Q250844-TYJ	Three	75	Padmount	Active		339
M-139		103N55884	Single	25	Padmount	Active	34 CROSSING	
0248859-TWJ		Three	300	5.4	Active		340	
M-102		Q248859-	Three	300	Padmount	Active		340
M-101		FF06024733	Three	300	Padmount	Active		341
M-100		92J136026	Three	300	Padmount	Active		342
G2-9		86JC643179	Three	150	Padmount	Active		35
F-78		89A392973	Single	25	Pole	Active		374
F-75		79D1831001	Single	25	Pole	Active		375
F-77		79D18361003	Single	25	Pole	Active		375
F-76		79D1831002	Single	25	Pole	Active		375
G2-8		88ZC732-	Three	150	Padmount	Active		40
88ZC732-		Three	150	4.5	Active		40	
M-93		70AJ1269	Single	25	Pole	Active		447
M-91		70AG8462	Single	25	Pole	Active		447
M-92		70AJ2019	Single	25	Pole	Active		447
F-45		Q541074-TNP	Three	1500	Padmount	Active		45
M-97		913N56510	Three	112.5	Padmount	Active		451
M-98		Q501301-	Three	300	Padmount	Active		452
0501301-TWK		Three	300	4.25	Active		452	
G2-37		980292-VA	Three	500	Padmount	Active		457
M-88		1.545E+09	Single	100	Pole	Active		468
M-96		92K49101	Three	500	Padmount	Active		468
M-90		1.545E+09	Single	100	Pole	Active		468
M-89		1.545E+09	Single	100	Pole	Active		468
G2-34		68B18757	Single	50	Pole	Active		473
G2-36		65B11974	Single	50	Pole	Active		473
G2-35		68A4724	Single	50	Pole	Active		473
M-8		97A402392	Single	50	Pole	Active		49
M-6		97A402412	Single	50	Pole	Active		49
M-7		97A402367	Single	50	Pole	Active		49
M-5		K740351Y7	Single	75	Pole	Active		50
M-4		K692460Y7	Single	75	Pole	Active		50
M-3		K767981Y7	Single	75	Pole	Active		50
G2-112		64AG1070	Single	100	Pole Mount	Active		500
G2-67		64AG4787	Single	100	Pole Mount	Active		500
G2-109		64AF1701	Single	100	Pole Mount	Active		500

G2-66	64AF1130	Single	100	Pole Mount	Active		500
G2-111	64AD6274	Single	100	Pole Mount	Active		500
G2-114	61924	Three	225	Padmount	Active		500
G2-110	M505836YE	Single	100	Pole Mount	Active		500
G2-59	P818759TN	Three	150	Padmount	Active		508
M-86	59646	Single	75	Pole	Active		513
M-84	L708875TKLA	Three	500	Padmount	Active		513
M-85	59647	Single	75	Pole	Active		513
L709875TKLA	Three	500	2.1	Active	513		
M-87	59643	Single	75	Pole	Active		513
M-147	99J798274	Three	500	Padmount	Active		515
M-152	990330-VA	Three	500	Padmount	Active		517
M-149	C29185	Single	50	Pole	Active		518
M-148	C29183	Single	50	Pole	Active		518
M-150	C29184	Single	50	Pole	Active		518
G2-33	P015199	Three	500	Padmount	Active		520
G2-32	P015113	Three	225	Padmount	Active		520
G2-63	3678-13	Single	15	Pole	Active		523
G2-64	3678-9	Single	15	Pole	Active		523
G2-65	3.656E+09	Single	15	Pole	Active		523
M-63	6402472	Single	37.5	Pole	Active		531
M-64	6111309	Single	50	Pole	Active		531
M-65	11710151	Single	37.5	Pole	Active		531
M-70	P015830	Three	300	Padmount	Active		531
M-2	P017898	Three	225	Padmount	Active		54
F-15	62015	Single	75	Pole	Active		55
F-16	62016	Single	75	Pole	Active		55
F-17	62014	Single	75	Pole	Active		55
M-11	2914976	Single	25	Pole	Active	56,55,60,61	
M-10	2914977	Single	25	Pole	Active	56,58,60,61	
M-9	2914975	Single	25	Pole	Active	56,58,60,61	
G2-54	P101395-YSA	Single	10	Pole	Active		569
F-19	3327-4	Single	25	Pole	Active		57
F-18	3446-2	Single	25	Pole	Active		57
F-20	3165-1	Single	25	Pole	Active		57
G2-55	70310	Single	37.5	Pole	Active		572
G2-57	59AE4683	Single	50	Pole	Active		572
G2-56	59AG2720	Single	50	Pole	Active		572
G2-48	97J260249	Three	112.5	Padmount	Active		573,580
G2-52	72AM11826	Single	25	Pole	Active		574
G2-50	Q108480-TNH	Three	500	Padmount	Active		577
G2-49	Q108488-TNH	Three	750	Padmount	Active		578
M-165	67D11666	Single	50	Pole	Active		58
M-164	73AG17612	Single	50	Pole	Active		58
M-166	62650	Single	50	Pole	Active		58
M-80	99J199112	Three	500	Padmount	Active		581
99J799112	Three	500	4.86	Active	581		
M-71	N192540YM	Single	75	Pole	Active		582

M-73	N343532YG	Single	75	Pole	Active		582
M-72	N208103YB	Single	75	Pole	Active		582
M-66	N343531YG	Single	75	Pole	Active		583
M-68	58B11422	Single	75	Pole	Active		583
M-67	N344693YH	Single	75	Pole	Active		583
M-77	80A06490	Single	37.5	Pole	Active	584 & LINEN	
M-76	80A032593	Single	37.5	Pole	Active	584 & LINEN	
M-75	81A412342	Single	37.5	Pole	Active	584 & LINEN	
M-116	3.657E+09	Single	100	Pole	Active		585
M-117	3.657E+09	Single	100	Pole	Active		585
M-118	3.657E+09	Single	100	Pole	Active		585
M-119	ST28750747	Single	75	Pole	Active		586
M-120	ST28750747	Single	75	Pole	Active		586
M-121	ST28750747	Single	75	Pole	Active		586
M-82	77ZG079003	Single	75	Pole	Active		587
M-81	77ZF067001	Single	75	Pole	Active		587
M-83	63SH420	Single	75	Pole	Active		587
M-153	Q558233-TSR	Three	1000	Padmount	Active		588
F-12	N150122YJSA	Single	25	Pole	Active	59,65,66	
F-14	N150112YJSA	Single	25	Pole	Active	59,65,66	
F-13	N150120YJSA	Single	25	Pole	Active	59,65,66	
M-74	PVC-0215	Three	300	Padmount	Active	590,591,592,593,5	
12BB14941	Three	225	3.3	Active	638		
G2-106	3425	Three	112.5	Padmount	Active		642
M-55	1.602E+09	Single	25	Pole	Active		649
M-56	1.602E+09	Single	25	Pole	Active		649
M-57	1.602E+09	Single	25	Pole	Active		649
T-15	881036056	Single	25	Padmount	Active		684
F-79	96A053491	Single	15	Pole	Active		700,702
F-80	96A052885	Single	15	Pole	Active		700,702
F-81	96A052961	Single	15	Pole	Active		700,702
F-90	P711204-YYD	Single	37.5	Pole	Active	701 & COMPOUND	
F-89	P711205-YYD	Single	37.5	Pole	Active	701 & COMPOUND	
F-88	P590452-YOD	Single	37.5	Pole	Active	701 & COMPOUND	
M-157	M396934YMN	Single	75	Pole on	Active		768
M-34	M390160YMA	Single	75	Pole on	Active		768
M-156	M390158YYM	Single	75	Pole on	Active		768
M-37	66AB9190	Single	50	Pole	Active	768-GYM	
M-38	66AA4960	Single	50	Pole	Active	768-GYM	
M-26	74F17913	Single	100	Pole	Active		769
M-24	2751817-4	Single	100	Pole	Active		769
M-25	74G10618	Single	100	Pole	Active		769
M-28	74F17675	Single	75	Pole	Active		771
M-29	74F17699	Single	75	Pole	Active		771
M-30	74B13131	Single	75	Pole	Active		771
M-43	6145426	Single	75	Pole	Active		773
M-44	6145423	Single	75	Pole	Active		773
M-45	3461283	Single	37.5	Pole	Active		773

M-18		771019709	Single	25	Pole	Active		782
M-17		771019714	Single	25	Pole	Active		782
M-19		761131673	Single	25	Pole	Active		782
M-32		66J2420	Single	37.5	Pole	Active		783
M-33		66J2427	Single	37.5	Pole	Active		783
M-31		66J2435	Single	37.5	Pole	Active		783
M-154		1701794-8	Single	75	Pole	Active		784
M-155		1701794-9	Single	75	Pole	Active		784
M-40		K701065Y7	Single	37.5	Pole	Active		785,785,781
M-42		K701064Y7	Single	37.5	Pole	Active		785,786,781
M-41		K701063Y7	Single	37.5	Pole	Active		785,786,781
M-50		73AB10886	Single	15	Pole	Active		787
M-52		73Y3115419	Single	15	Pole	Active		787
M-51		73AH8075	Single	15	Pole	Active		787
M-48		A289807R	Single	15	Pole	Active		787 - EMPLOYEE
M-47		706001712	Three	750	Padmount	Active		787-BX
M-49		C-43833-1-1	Three	750	Padmount	Active		787-COMMISSARY
M-46		37007743	Three	300	Padmount	Active		787-COMMISSARY
M-20		1785407-2	Single	75	Pole	Active		790
M-22		1785407-1	Single	75	Pole	Active		790
M-21		1785407-3	Single	75	Pole	Active		790
M-35		463550300	Single	25	Pole	Active		792
M-159		4.636E+09	Single	25	Pole	Active		792
M-158		68AA8137	Single	25	Pole	Active		792
F-33		P081979-YPA	Single	10	Pole	Active		80 PARKING LIGHTS
F-34		93A371623	Single	15	Pole	Active		80& 121
F-36		93A371622	Single	15	Pole	Active		80& 121
F-35		93A371621	Single	15	Pole	Active		80& 121
WS2-		A56002078	Three	500	Padmount	Active		800
WS2-		1228230	Single	3	Pole	Active		801
	14582	Three	112.5	1.9	Active	802/803		
56M31102		Single	10	2.5	Active		803	
WS3-		J767074K70	Single	75	Pole Mount	Active		805,855
WS3-		J766472K70	Single	75	Pole	Active		805,855
WS3-		J767079K70	Single	75	Pole Mount	Active		805,855
WS2-		96A292515	Single	37.5	Pole	Active		806
WS2-		96A292516	Single	37.5	Pole	Active		806
WS2-		96A292518	Single	37.5	Pole	Active		806
WS2-		63D8927	Single	167	Pole Mount	Active		809/825
WS2-9		63C10338	Single	167	Pole Mount	Active		809/825
WS2-8		63C10335	Single	167	Pole Mount	Active		809/825
WS2-		1803924-9	Single	167	Padmount	Active		811
WS2-		180392-3	Single	167	Pole Mount	Active		811
WS2-		3.657E+09	Single	100	Pole Mount	Active		811
WS2-		1803924-2	Single	167	Pole Mount	Active		811
WS2-		10521532EQA	Single	50	Pole Mount	Active		811
WS2-		10521524EQA	Single	50	Pole Mount	Active		811

WS2-	80A341926	Single	75	Pole Mount	Active		811
WS2-	10521573EQA	Single	50	Pole Mount	Active		811
WS2-	80A264459	Single	75	Pole Mount	Active		811
WS2-	80A392758	Single	75	Pole Mount	Active		811
WS2-	3.657E+09	Single	100	Pole Mount	Active		811
WS2-	3.657E+09	Single	100	Pole Mount	Active		811
T-1	Q244704-	Three	300	Padmount	Active		812
WS2-	10521581EQA	Single	75	Pole Mount	Active		816
WS2-	10521599EQA	Single	75	Pole Mount	Active		816
WS2-	10521607EQA	Single	75	Pole Mount	Active		816
WS2-	81A040036	Single	167	Pole Mount	Active		817
WS2-	81A040976	Single	167	Pole Mount	Active		817
WS2-	81A040035	Single	167	Pole Mount	Active		817
WS2-	93J286123	Three	500	Padmount	Active		820
WS2-	93J286058	Three	500	Padmount	Active		823
WS2-	93J285090	Three	750	Padmount	Active		823
WS2-	13360-27	Single	25/28	Pole	Active		824
WS2-	92J091027	Three	300	Padmount	Active		824
WS3-	98A450293	Single	37.5	Pole	Active	825 - AC UNITS	
WS3-	98071004	Single	37.5	Pole	Active	825 - AC UNITS	
WS3-	98071002	Single	37.5	Pole	Active	825 - AC UNITS	
WS2-	12889	Three	300	Padmount	Active		827
WS2-1	89A311372	Single	75	Pole	Active		827
WS2-2	89A312867	Single	75	Pole	Active		827
WS2-3	89A312866	Single	75	Pole	Active		827
WS2-	2883155	Single	25	Pole	Active		828
WS2-	288174	Single	25	Pole	Active		828
WS2-	2846395	Single	25	Pole	Active		828
WS2-	85A182670	Single	50	Pole Mount	Active		830
WS2-	N184446YL	Single	50	Pole Mount	Active		830
WS2-	N184447YL	Single	50	Pole Mount	Active		830
WS2-	85A182669	Single	50	Pole Mount	Active		830
WS2-	85A182668	Single	50	Pole Mount	Active		830
WS2-	77A324269	Single	100	Pole Mount	Active		830
WS2-	77A330048	Single	100	Pole Mount	Active		830
WS2-	77A324270	Single	100	Pole Mount	Active		830
WS2-	N202009YA	Single	50	Pole Mount	Active		830
124021-64P	Three	300	1.7	Active		839	
WS1-	891073900	Single	167	Pole Mount	Active		841
WS1-	891073898	Single	167	Pole Mount	Active		841
WS1-	891073899	Single	167	Pole Mount	Active		841
WS1-	799471FQB	Single	50	Pole Mount	Active		841
WS1-	799470FQB	Single	50	Pole Mount	Active		841
WS1-	799472FQB	Single	50	Pole Mount	Active		841
WS1-	D-4445	Three	300	Padmount	Active		842
WS1-	PTA-0022	Three	500	Padmount	Active		842
WS3-9	70AL6967	Single	25	Pole	Active		843
WS3-7	70AL6969	Single	25	Pole	Active		843

WS3-8		683012494	Single	37.5	Pole	Active		843
WS3-5		683003993	Single	37.5	Pole	Active		844
WS3-4		681039930	Single	37.5	Pole	Active		844
WS3-6		683003998	Single	37.5	Pole	Active		844
WS3-3		693012617	Single	37.5	Pole	Active		856
WS3-2		693012616	Single	37.5	Pole	Active		856
WS3-1		693012615	Single	37.5	Padmount	Active		856
WS1-6		70AL6917	Single	25	Pole	Active		857
WS1-4		70AL6911	Single	25	Pole	Active		857
WS1-5		70AL6055	Single	25	Pole	Active		857
T-10		Q105620-	Three	500	Padmount	Active		863
WS2-4		00A432564	Single	75	Pole	Active		865
K289792		Single	15	3.14	Active		866	
WS3-		M343170YJ	Single	75	Pole	Active		866,869
WS3-		M140024YA	Single	75	Pole	Active		866,869
WS3-		M136838YA	Single	75	Pole	Active		866,869
WS3-		2905400	Single	37.5	Pole	Active		867
WS3-		2555479	Single	37.5	Pole	Active		867
WS3-		62995	Single	37.5	Pole	Active		867
WS3-		85V6840	Three	75	Padmount	Active		868
WS3-		85JE425225	Three	1000	Padmount	Active		868,871
WS3-		P818269TN	Three	500	Padmount	Active	871 POL TANKS	
	3	1701794-6	Single	75	Pole	Active		874
WS3-		M895726YH	Single	25	Pole	Active		875
WS3-		M895736YH	Single	25	Pole	Active		875
WS3-		M895738YH	Single	75	Pole	Active		875
WS3-		3251-3	Three	500	Padmount	Active		877
WS3-		17962-1	Three	500	Padmount	Active		877
WS2-		922N56868	Single	50	Pole	Active		878
G2-2		1435018G	Single	50	Pole	Active	88,96	
G2-3		1435018C	Single	50	Pole	Active	88,96	
G2-1		3480-4	Single	50	Pole	Active	88,96	
WS1-3		66AE13160	Single	15	Pole	Active	880 & 815	
WS1-2		66AE13153	Single	15	Pole	Active	880 & 815	
WS1-1		Single	15	1.8	Active	880 & 815		
WS3-		N569044-YCW	Single	25	Pole	Active		881
WS3-		N569049-YCW	Single	25	Pole	Active		881
WS3-		M391610YM	Single	15	Pole	Active		883
T-5		98081702	Single	15	Pole	Active		885
T-6		98081705	Single	15	Pole	Active		885
T-7		98081704	Single	15	Pole	Active		885
T-2		2075363	Single	15	Pole	Active	887/882	
T-3		2075366	Single	15	Pole	Active	887/882	
T-4		2075367	Single	15	Pole	Active	887/882	
WS3-		91V8105	Three	150	Padmount	Active		888
G2-6		55H23381	Single	37.5	Pole	Active		89
G2-5		56E2343	Single	37.5	Pole	Active		89
G2-4		56E2322	Single	37.5	Pole	Active		89

WS3-		91V8342	Three	300	Padmount	Active			892
WS3-		91V8339	Three	500	Padmount	Active			892
WS3-		2.898E+09	Three	225	Padmount	Active			894
WS3-		91V8341	Three	300	Padmount	Active			895
WS1-9		96A053298	Single	15	Pole	Active			897
WS1-8		96A053378	Single	15	Pole	Active			897
WS1-7		95A510059	Single	15	Pole	Active			897
	0	835794	Three	1000	Padmount	Active			898
F-23		N508306YJ	Single	37.5	Pole	Active			93
F-22		N508303YJ	Single	37.5	Pole	Active			93
F-21		N508305YJ	Single	37.5	Pole	Active			93
K11209702		Single	100	3.2	Active		943		
K11209701		Single	100	3.2	Active		944		
	98093002	Single	167	2.8	Active		945		
NF-39		98077006	Single	37.5	Pole	Active		972 (WATER	
NF-8		74VB09400	Single	15	Pole	Active		Ammo Area Gate	
NF-6		74VB09401	Single	15	Pole	Active		Ammo Area Gate	
NF-7		74VB09400	Single	15	Pole	Active		Ammo Area Gate	
W-49		G721660-66K	Single	15	Pole	Active		B-15	
W-50		G721655-66K	Single	15	Pole	Active		B-15	
W-51		G727609-67K	Single	15	Pole	Active		B-15	
W-57		2075357	Single	15	Pole	Active		B-17	
W-56		2075364	Single	15	Pole	Active		B-17	
W-55		2075360	Single	15	Pole	Active		B-17	
W-43		86A180043	Single	10	Pole	Active		B-2	
W-44		88A502906	Single	10	Pole	Active		B-2	
W-45		A1712A10P	Single	10	Pole	Active		B-2	
W-28		97A203684	Single	10	Pole	Active		B-26 (WELLFIELD)	
W-29		97A203755	Single	10	Pole	Active		B-26 (WELLFIELD)	
W-30		97A203710	Single	10	Pole	Active		B-26 (WELLFIELD)	
W-58		2023458	Single	25	Pole	Active		B-34	
W-59		2023460	Single	25	Pole	Active		B-34	
W-60		2023459	Single	25	Pole	Active		B-34	
W-54		38023804	Single	25	Pole	Active		B-35	
W-52		38023806	Single	25	Pole	Active		B-35	
W-53		38023805	Single	25	Pole	Active		B-35	
W-47		87121	Single	10	Pole	Active		B-5	
W-48		87118	Single	10	Pole	Active		B-5	
W-46		87124	Single	10	Pole	Active		B-5	
M-109		97A203705	Single	10	Pole	Active		BALLFIELD	
M-110		98080701	Single	25	Pole	Active		BALLFIELD	
M-111		98080702	Single	25	Pole	Active		BALLFIELD	
M-112		98080703	Single	25	Pole	Active		BALLFIELD	
M-136		72AM2411	Single	25	Pole	Active		BALLFIELDS	
M-135		72AM240A	Single	25	Pole	Active		BALLFIELDS	
F-40		NH1059010	Single	25	Padmount	Active		BALLFIELDS	
M-134		72AM11831	Single	25	Pole	Active		BALLFIELDS	
M-115		70AJ4481	Single	25	Pole	Active		BALLFIELDS	

M-114		70AJ115540	Single	25	Pole	Active	BALLFIELDS
M-113		70AH14354	Single	25	Pole	Active	BALLFIELDS
96J073065		Three	45	2.28	Active	bear base tent city	
80A72030		Single	25	3.4	Active	BUILDING 1	
MF-38		N234946TA	Single	167	Pole Mount	Active	BUILDING
NF-55		98081701	Single	15	Pole	Active	BULLPEN
	683006182	Single	37.5	1.6	Active	camera pads in vault	
M-1		3329009	Single	6-May	Pole	Active	CE COMPOUND
W-42		2782162-6	Single	15	Pole	Active	CONTRACTOR
H-34		PXA-0074	Three	500	Padmount	Active	CTR TRAILER
W-27		B489569	Single	15	Pole	Active	D-4 (WELLFIELD)
W-26		B489238	Single	15	Pole	Active	D-4 (WELLFIELD)
W-25		B489572	Single	15	Pole	Active	D-4 (WELLFIELD)
NF-9		S290005	Three	500	Padmount	Active	DRONE PARKING
W-1		3.657E+09	Single	75	Pole	Active	E-1 (WELLFIELD)
W-2		3.657E+09	Single	75	Pole	Active	E-1 (WELLFIELD)
W-3		3.657E+09	Single	75	Pole	Active	E-1 (WELLFIELD)
W-7		N914587-YEY	Single	100	Pole	Active	F-1 (WELLFIELD)
W-9		N914586-YEY	Single	100	Pole	Active	F-1 (WELLFIELD)
W-8		N914588-YEY	Single	100	Pole	Active	F-1 (WELLFIELD)
W-4		N909367-YDY	Single	37.5	Pole	Active	F-2 (WELLFIELD)
W-5		N909369-YDY	Single	37.5	Pole	Active	F-2 (WELLFIELD)
W-6		N909368-YDY	Single	37.5	Pole	Active	F-2 (WELLFIELD)
G2-104		959002905	Three	225	Padmount	Active	GAF HUSH HOUSE
G2-105		96192-01	Single	25	Padmount	Active	GAF LIVE LOAD PAD
G2-51		93A303931	Single	10	Pole	Active	GAS STATION BY
M-143		66237	Single	25	Padmount	Active	GOLF COURSE
M-142		4.056E+09	Single	37.5	Pole Mount	Active	GOLF COURSE
M-141		4.056E+09	Single	37.5	Pole Mount	Active	GOLF COURSE
M-163		6336027	Single	15	Pole Mount	Active	GOLF COURSE
M-140		4.056E+09	Single	37.5	Pole Mount	Active	GOLF COURSE
MF-131		N931015-YFY	Single	37.5	Padmount	Active	GROUND
MF-132		98080705	Single	25	Padmount	Active	GROUND
MF-129		N91019-YFY	Single	37.5	Padmount	Active	GROUND
MF-130		N931018-YFY	Single	37.5	Padmount	Active	GROUND
MF-122		1.603E+09	Single	50	Pole	Active	GROUND STATION
MF-121		1.603E+09	Single	50	Pole	Active	GROUND STATION
MF-123		B54897	Single	5	Pole	Active	GROUND STATION
M-122		13360-21	Single	25	Pole	Active	HOCKEY RING
M-123		13360-7	Single	25	Pole	Active	HOCKEY RING
M-124		13360-12	Single	25	Pole	Active	HOCKEY RING
MF-97		1194324	Single	10	Pole	Active	HORSE
MF-101		SSE7716	Single	10	Pole	Active	HORSE AREA
WS2-		P491272TWC	Three	150	Padmount	Active	HUSH HOUSE
WS2-		P491273TWC	Three	150	Padmount	Active	HUSH HOUSE
M-58		K695281572A	Single	25	Pole	Active	LIGHT FOR 649

F-32		74AB17753	Single	15	Pole	Active	LIGHT IN BACK OF
MF-159		N568823-YCW	Single	15	Pole	Active	N/A
MF-64		4125.3	Single	500	Padmount	Active	N/A
MF-65		4125.1	Single	500	Padmount	Active	N/A
MF-68		62K2509	Single	37.5	Pole	Active	N/A
MF-71		63G4570	Single	100	Pole	Active	N/A
MF-85		Q103875TU	Three	500	Padmount	Active	N/A
MF-86		0103862-	Three	1000	Padmount	Active	N/A
MF-119		98081703	Single	15	Pole	Active	N/A
MF-88		921908	N/A	N/A	Padmount	Active	N/A
MF-89		Q108021-TG	Three	50	Padmount	Active	N/A
MF-124		B548595	Single	5	Pole	Active	N/A
MF-133		959001882	Three	45	Padmount	Active	N/A
MF-87		7371	N/A	N/A	Padmount	Active	N/A
MF-90		Q9103849-	Three	500	Padmount	Active	N/A
MF-66		62K12410	Single	37.5	Pole	Active	N/A GROUND
MF-70		63G4569	Single	100	Pole	Active	N/A GROUND
MF-69		63G4568	Single	100	Pole	Active	N/A GROUND
MF-67		62K12408	Single	37.5	Pole	Active	N/A GROUND
02J598144		Three	150	4.29	Active	new dog kennel	
80A72030		Single	25	3.4	Active	OVERPASS LIGHTS	
WS3-		97J259027	Three	150	Padmount	Active	PAD 2 ON HOTEL
F-83		ZZ05996	Single	25	Pole	Active	POL LIGHTS
F-82		ZZ05994	Single	25	Pole	Active	POL LIGHTS
F-84		ZZ05995	Single	25	Pole	Active	POL LIGHTS
F-41		G459742-66Y	Single	10	Pole	Active	POL PERIMETER
F-42		94A434369	Single	37.5	Pole	Active	POL PERIMETER
W-41		D3913606	Single	15	Pole	Active	POLE BY
	37007589	Three	225	3.9	Active	PRIME BEEF PIT	
W-34		E1712N15C	Single	15	Pole	Active	PUMP SHACK
99J752046		Single	250	2.17	Active	R.V. PARK #6 & 7	
G2-98		99J802136	Three	45	Padmount	Active	RAMP LIGHT #1
G2-97		99J801067	Three	45	Padmount	Active	RAMP LIGHT #2
G2-96		99J801212	Three	45	Padmount	Active	RAMP LIGHT #3
G2-79		99J801142	Three	45	Padmount	Active	RAMP LIGHT #4
G2-108		99J801274	Three	45	Padmount	Active	RAMP LIGHT #5
G2-58		99J802071	Three	45	Padmount	Active	RAMP LIGHT #6
92K49100		Three	150	2.96	Active	RAMP LIGHTS	
92K49100		Three	150	2.96	Active	RAMP LIGHTS	
G2-103		92K49100	Three	150	Padmount	Active	RAMP LIGHTS
G2-113		850819A	Three	75	Padmount	Active	RAMP LIGHTS
W-22		06983Y74A	Single	50	Pole	Active	SA-1 (WELLFIELD)
W-23		046329YKRA	Single	50	Pole	Active	SA-1 (WELLFIELD)
W-24		1768569YZ4	Single	50	Pole	Active	SA-1 (WELLFIELD)
W-16		G867557-66Y	Single	50	Pole	Active	SA-3 (WELLFIELD)
W-17		G867558-66Y	Single	50	Pole	Active	SA-3 (WELLFIELD)
W-18		G867559-66Y	Single	50	Pole	Active	SA-3 (WELLFIELD)

Single	Pole	Active	SA-5 (WELLFIELD)			
W-14	Single	Pole	Active			
W-15	Single	Pole	Active			
P100621-YSA	Single	15	3.24	Active	SEE REMARKS	
G2-39	L974235YG	Single	25	Pole	Active	SEE REMARKS
G2-45	1244007	Single	50	Pole	Active	SEE REMARKS
G2-43	Single	50	2.5	Active	SEE REMARKS	
WS3-	P100622-YSA	Single	15	Pole	Active	SEE REMARKS
G2-44	1244009	Single	50	Pole	Active	SEE REMARKS
95J989332	Single	100	2.9	Active	SEE REMARKS	
F-109	P351431-YXB	Single	15	Pole	Active	SEE REMARKS
F-110	P351428-YXB	Single	15	Pole	Active	SEE REMARKS
F-111	P31841-YVB	Single	15	Pole	Active	SEE REMARKS
H-11	70297	Single	37.5	Pole	Active	SEE REMARKS
F-30	1206473	Single	10	Pole	Active	SEE REMARKS
H-20	70302	Single	37.5	Pole	Active	SEE REMARKS
95J989307	Single	100	2.9	Active	SEE REMARKS	
M-162	277295	Single	50	Pole	Active	SEE REMARKS
M-53	G249025-65Y	Single	10	Pole	Active	SEE REMARKS
M-78	D099814R	Single	10	Pole	Active	SEE REMARKS
M-144	Q503424-TXK	Three	1000	Padmount	Active	SEWER PLANT
M-125	81A520653	Single	37.5	Pole	Active	SOCCER & TRACK
M-127	81A520636	Single	37.5	Pole	Active	SOCCER & TRACK
M-126	81A520634	Single	37.5	Pole	Active	SOCCER & TRACK
1H01961	Single	25	2.8	Active	SOCCER FIELD	
M-16	Q529528-TNN	Three	75	Padmount	Active	SOCCER FIELD
M-15	7B507P19	Single	25	Padmount	Active	SOCCER FIELD
WS2-7	L783155Y74	Single	25	Pole	Active	ST LIGHTS
WS2-6	L790594YB	Single	25	Pole	Active	ST LIGHTS
WS2-5	T062999	Single	25	Pole	Active	ST LIGHTS
WS3-	F430401-	Single	25	Pole	Active	ST. LIGHTS ON
S-3	P818855TN	Three	1500	Padmount	Active	STEALTH SPOTS
S-1	P818311TN	Three	1000	Padmount	Active	STEALTH SPOTS 1-
S-4	966001456	Three	1500	Padmount	Active	STEALTH SPOTS
S-7	P818310TN	Three	1000	Padmount	Active	STEALTH SPOTS
S-6	P818858TN	Three	1500	Padmount	Active	STEALTH SPOTS
S-5	P818857TN	Three	1500	Padmount	Active	STEALTH SPOTS
S-2	P818856TN	Three	1500	Padmount	Active	STEALTH SPOTS 5-
M-108	M391611YM	Single	15	Pole	Active	STREET LIGHTS
F-49	97A380647	Single	75	Pole	Active	STREET LIGHTS
M-106	84A502078	Single	15	Pole	Active	STREET LIGHTS-
M-107	92A331857	Single	15	Pole	Active	STREET LIGHTS-
MF-128	959001883	Three	45	Padmount	Active	STROBES
G2-101	71AJ3170	Single	167	Pole Mount	Active	T-38 HUSH HOUSE
G2-99	71AJ2422	Three	167	Pole Mount	Active	T-38 HUSH HOUSE
G2-102	12BB14941	Three	225	Padmount	Active	T-38 HUSH HOUSE
G2-100	71AJ2423	Single	167	Pole Mount	Active	T-38 HUSH HOUSE

M-128		70AG17357	Single	25	Pole	Active	TENNIS COURTS
M-129		70AG7902	Single	25	Pole	Active	TENNIS COURTS
M-130		70AG7807	Single	25	Pole	Active	TENNIS COURTS
	886002094	Three	1000	13200	training area in back		
F-24		93A304067	Single	15	Pole	Active	TRANS PERIMETER
MF-49		84058	Single	75	Pole Mount	Active	UNKNOWN
MF-35		13053	Three	500	Padmount	Active	UNKNOWN
MF-37		N234944TA	Single	167	Pole Mount	Active	UNKNOWN
MF-41		12690-9	Single	167	Pole Mount	Active	UNKNOWN
MF-42		E449961-	Three	500	Active	UNKNOWN	
MF-43		E449962-	Three	112.5	Pole Mount	Active	UNKNOWN
MF-44		H298587P71A	Single	167	Pole Mount	Active	UNKNOWN
MF-45		H298590P71A	Single	167	Pole Mount	Active	UNKNOWN
MF-46		H298588P71A	Single	167	Pole Mount	Active	UNKNOWN
MF-47		84060	Single	75	Pole Mount	Active	UNKNOWN
MF-39		12690-3	Single	167	Pole Mount	Active	UNKNOWN
MF-48		84059	Single	75	Pole Mount	Active	UNKNOWN
MF-53		881107116	Single	167	Pole	Active	UNKNOWN
MF-54		8.81E+09	Single	167	Pole	Active	UNKNOWN
MF-60		60075	Single	100	Pole	Active	UNKNOWN
MF-61		59995	Single	100	Pole	Active	UNKNOWN
MF-62		5994	Single	100	Pole	Active	UNKNOWN
MF-63		4125.2	Single	500	Padmount	Active	UNKNOWN
MF-55		RT90104510	Single	167	Pole	Active	UNKNOWN
K289726		Single	37.5	1.9	Active	vault #9 camara pad	
k289726		Single	37.5	1.9	Active	VAULT #9	
F-28		92V8881	Three	30	Padmount	Active	WASHRACK - 5903
635k459		Single	5	2.3	water meter west area		
M-13		13054	Three	500	Padmount	Active	WATER PLANT
WS3-		2844682	Single	50	Pole	Active	WATER TANK ON
W-31		969105261	Single	167/187	WELLFIELD LINE		
W-33		979100185	Single	167/187	WELLFIELD LINE		
W-32		969105260	Single	167/187	WELLFIELD LINE		
W-35		669275	Single	25	Pole Mount	Active	WELLFIELD
W-37		A1412N25C	Single	25	Pole Mount	Active	WELLFIELD
W-36		50197-D	Single	25	Pole Mount	Active	WELLFIELD
W-39		72AC5422	Single	100	Pole Mount	Active	WELLFIELD PUMPS
W-40		A1762A99A	Single	100	Pole Mount	Active	WELLFIELD PUMPS
W-38		72AM4820	Single	100	Pole Mount	Active	WELLFIELD PUMPS
M-137		99J752057	Single	10	Padmount	Active	WEST AREA
	37007742	Three	300	5.6	Active	west side of north	
WS2-		85V6839	Three	75	Padmount	Active	WEST SIDE RAMP
G2-107		6445813	Single	37.5	Pole Mount	Active	WIND SOCK &
G2-115		B462185	Single	37.5	Pole Mount	Active	WIND SOCK &
G2-116		B724836	Single	37.5	Pole Mount	Active	WIND SOCK &

In Storage for Use Transformers

Serial Number	Phase	KVA	Mounting	Buildings
P590001-YOD	Single	10	Pole	Bullpen
63175	Single	100	Pole	Bullpen
63177	Single	100	Pole	Bullpen
M513000YEPA	Single	100	Pole	Bullpen
90A341667	Single	100	Pole	Bullpen
1545201096	Single	100	Pole	Bullpen
1545191096	Single	100	Pole	Bullpen
M505839YEPA	Single	100	Pole	Bullpen
90A341666	Single	100	Pole	Bullpen
90A341665	Single	100	Pole	Bullpen
1545211096	Single	100	Pole	Bullpen
94A163046	Single	100	Pole	Bullpen
97A412896	Single	100	Pole	Bullpen
94A163045	Single	100	Pole	Bullpen
97A412894	Single	100	Pole	Bullpen
97A412895	Single	100	Pole	Bullpen
94A163044	Single	100	Pole	Bullpen
2863600-20	Single	15	Pole	Bullpen
57D18827	Single	15	Pole	BULLPEN
02J638065	Three Phase	150	Padmount	New Bullpen
911127553	Single	167	Pole	new bullpen
1520281096	Single	167	Pole	Bullpen
1520311096	Single	167	Pole	Bullpen
1520321096	Single	167	Pole	Bullpen
1520271096	Single	167	Pole	Bullpen
1520291096	Single	167	Pole	Bullpen
1520251096	Single	167	Pole	Bullpen
1520301096	Single	167	Pole	Bullpen
Q104052-TUG	Three Phase	225	Padmount	650
92K49102	Three Phase	225	Padmount	Bullpen
13007	Three Phase	225	Padmount	NEW BULLPEN
3657380187	Single	25	Pole	
2082008	Single	25	Pole	Bullpen
1310530893	Single	25	Padmount	bull pen
59G11174	Single	25	Pole	BULL PEN
59G11170	Single	25	Pole	BULL PEN
59G11181	Single	25	Pole	
801039277	Single	25	Pole	

96A232028	Single	25	Pole	Bullpen
96A232029	Single	25	Pole	Bullpen
96A113474	Single	25	Pole	Bullpen
P589076-YOD	Single	25	Pole	Bullpen
02J664092	Three Phase	300	Padmount	New Bullpen
98A450285	Single	37.5	Pole	Bullpen
98A450286	Single	37.5	Pole	Bullpen
P590451-YOD	Single	37.5	Pole	Bullpen
3329010	Single	6-May	Pole	
861119220	Single	50	Padmount	
62650	Single	50	Pole	BULL PEN
02V6138-1	Single	50	Pole	Bullpen
02V6138-3	Single	50	Pole	Bullpen
97A102323	Single	50	Pole	Bullpen
02V6138-2	Single	50	Pole	Bullpen
000918-VA	Three Phase	500	Padmount	
237015464	Three Phase	500	Padmount	New Bullpen
92K49099	Three Phase	500	Padmount	Bullpen
02J522013	Three Phase	75	Padmount	Bullpen
02J522032	Three Phase	75	Padmount	918 & 909
20J522013	Three Phase	75	Padmount	BULL PEN
02J662017	Three Phase	75	Padmount	New Bullpen
02J624220	Three Phase	75	Padmount	New Bullpen
80A231411	Single	75	Pole	Bullpen
1532051096	Single	75	Pole	Bullpen
N890003-YCY	Single	75	Pole	Bullpen
97A380673	Single	75	Pole	Bullpen
N890002-YCY	Single	75	Pole	Bullpen
02A393363	Single	75	Pole	New Bullpen
02A393365	Single	75	Pole	New Bullpen
02A393364	Single	75	Pole	New Bullpen

If you have a POL spill of more than 5 gallons, call the Base Fire Department at 2-7228 from a Base phone or 911.

Report all POL spills regardless of quantity to 49 CES/CEAN at 2-3931.

EarthTech
A tyco International Ltd. Company

APPENDIX K

Record of Visual Inspections

This Appendix is reserved for future use. It will be used to document the quarterly visual inspections that are performed to determine compliance with the 2008 MSGP.

APPENDIX L

Record of Analytical Reports and DMR's

This Appendix is reserved for future use. It will be used to document the analytical reports and DMR's that are sent to the regulatory agencies to maintain compliance with the 2008 MSGP.

APPENDIX M

Record of Other Reporting Requirements

This Appendix is reserved for future use. It will be used to document other reporting requirements that emerge in order to maintain compliance with the 2008 MSGP.

NPDES Permit Tracking No.:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name:

2. NPDES Permit Tracking No.:

3. Facility Physical Address:

a. Street:

b. City: c. State: d. Zip Code: -

4. Lead Inspectors Name: Title:

Additional Inspectors Name(s):

5. Contact Person: Title:

Phone: - - Ext. E-mail:

6. Inspection Date: / /

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?
☐ YES ☐ NO

If NO, describe why not:

NOTE: *Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.*

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:

NPDES Permit Tracking No.:

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?

☐ YES ☐ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions? ☐☐

NOTE: *Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.*

NPDES Permit Tracking No.:

C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS

Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

NOTE: *Copy this page and attach additional pages as necessary*
INDUSTRIAL ACTIVITY AREA _____: 1. Brief Description: 2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO 3. Have any control measures failed and require replacement? ☐ YES ☐ NO 4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)
INDUSTRIAL ACTIVITY AREA _____: 1. Brief Description: 2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO 3. Have any control measures failed and require replacement? ☐ YES ☐ NO 4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)
INDUSTRIAL ACTIVITY AREA _____: 1. Brief Description: 2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO 3. Have any control measures failed and require replacement? ☐ YES ☐ NO 4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

D. CORRECTIVE ACTIONS

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # ☐☐ of ☐☐ for this reporting period.

2. Is this corrective action:

- ☐ An update on a corrective action from a previous annual report; or
- ☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release or discharge
- ☐ Numeric effluent limitation exceedance
- ☐ Control measures inadequate to meet applicable water quality standards
- ☐ Control measures inadequate to meet non-numeric effluent limitations
- ☐ Control measures not properly operated or maintained
- ☐ Change in facility operations necessitated change in control measures
- ☐ Average benchmark value exceedance
- ☐ Other (describe): _____

4. Briefly describe the nature of the problem identified:

5. Date problem identified: ☐☐/☐☐/☐☐☐☐

6. How problem was identified:

- ☐ Comprehensive site inspection
- ☐ Quarterly visual assessment
- ☐ Routine facility inspection
- ☐ Benchmark monitoring
- ☐ Notification by EPA or State or local authorities
- ☐ Other (describe): _____

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: ☐☐/☐☐/☐☐☐☐

10. Date correction action completed: ☐☐/☐☐/☐☐☐☐ or expected to be completed: ☐☐/☐☐/☐☐☐☐

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

NPDES Permit Tracking No.:

E. ANNUAL REPORT CERTIFICATION

1. Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

2. Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Printed Name: Title:

Signature: Date Signed:

APPENDIX N

Record of SWPPP Changes and Corrections

This Appendix is reserved for future use. It will be used to document SWPPP changes and corrections that are made in order to maintain compliance with the 2008 MSGP.

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Runways and taxiways	None	Runway and taxiway maintenance; aircraft fueling/defueling on taxiways		None	None	NA	No storage																	
Vehicle Operations	196	Vehicle maintenance	Steve Jones	Storage locker	automotive fluids	I	<20 gallons	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36		X	X		X							X	X	X		
Auto Craft Shop	231	Maintenance of POVs	Buddy Ward	55-gallon drums	Antifreeze, Super Clean, used oil	I	<10 drums	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36		X	X											X		
				55-gallon drums	Used motor oil, antifreeze	O	<10 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36		X	X		X					X		X		X		
				528-gallon DW AST	Used motor oil	O	528 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36																
Machine Shop	280	Machining of metals	Ron Brownell	55-gallon drums	Hazardous waste, metal scraps	I	6 drums	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36										X		XX				
				Storage locker	Oils	I	<10 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36		X	X		X								X	X		
Main Flight Line	281	Sheet metal shop	Ron Brownell	Uncovered storage rack	Unfinished metal sheets and piping	O	5' by 10' area	1-8, 10-15, 17-19, 22, 24-33, 35, 36										X						
				55-gallon drum	MEK and hazardous waste	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36										X		X	X			
Main Flight Line	282	Aircraft Corrosion Control (Paint Barn)	Ron Brownell	Storage locker	Hazardous waste, MEK, paint, rags, paint, removers, oxidizers, chromium trioxide	I	600 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36		X	X	X						X			X	X		
				Storage shed and drum	Paints and thinner	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36		X	X	X						X			X		X	

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Main Flight Line	Adjacent to 288	JP-8 storage, GAF Hydrant System	Tsgt Alexander	Four 25,000-gallon ASTs	JP-8, JP-8 + 100	O	100,00 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X							X	X	X		
	293	Aircraft parts warehouse	Ron Brownell	Storage locker	Adhesives, cleaners, solvents	I	20 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X			X				X	X	X		
	297	Survival Equipment	Ron Brownell	Storage locker	Adhesives, cleaners, solvents, MEK	I	20 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X			X				X	X	X		
	300	Maintenance of aircraft engines, Overhau	Ron Brownell	55-gallon drums	Hydraulic oil, ultra sonic fluid, Simple Green	I	400 gallons	1-6, 8, 10, 12, 13, 14, 17, 18, 24-27, 29-33, 35, 36	X	X				X									
				55 gallon drums	Scrap metal	I	200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36									X						
				Shed and drums	used oil,	O	200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
				300-gallon DW AST	Safety Clean	I	800 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X										X			
	301	Weapons Control System Shop (WCS) Radar Maintenance	Ron Brownell	Shed	Poly-alpha-olefen	I	5 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	Adjacent to 301	Defueling of Aircraft	Ron Brownell	Concrete pad	Potential JP-8	O	500 gallons (total)	14, 18, 19, 22, 33				X											
	NW of 301	Fueling of aircraft	Ron Brownell	Fuel bowsers	Reclaimed JP-8, hydraulic oil, lube oil	O	1,000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	306	Aircraft wash rack and water recycling	Ron Brownell	None	Detergent	O	no storage	7, 11, 12, 13, 15, 18, 21, 22, 30, 36	X	X				X									

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Main Flight Line	309	Aerospace ground equipment maintenance	Ron Brownell	Lube rack	Hydraulic oil, lube oil, Simple Green	I	<10 drums	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X		X			
				Lockers	Antifreeze, coolant	I	<10 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X													
					washrack	I		7, 11, 12, 13, 18, 30, 33																	
				55-gallon drums	Used oils	O	<10 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X						X		X		X		
				Transfer tanks	Used JP-8 and gasoline	O	<500 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X						X		X	X	X		
				55-gallon drums	Used oil	I	<4 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X						X			X	X		
				528 gallon DW steel AST	Used Oil	O	528 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X						X			X	X		
				Rack and or pallet	Scrap metal and wiring	O		1, 5, 6, 8, 30, 32, 33			X							X						
	525	Crash/Fire/Rescue Station	Chief Mello	DW, steel AST	Diesel	O	1,500 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X									X	X		
Fuel Hangar	315	Aircraft fuel tank repair	Ron Brownell	400 gallon bowser	JP-8	O	<10 drums	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X						X		X	X	X		
				55 gallons drum	Rags with MEK	I	55 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36				X									X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory				Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Fuel Hangar	315	Aircraft fuel tank repair	Ron Brownell	Storage locker	Glue, MEK, isopropyl alcohol	I	20 gallons	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36	X	X										X	X	X		
Base Supply	310	Storage of base supplies for distribution	Steve Jones	Containers, drums	Paints, lubricant, hydraulic fluid, solvents, detergents, cleaners, antifreeze	I	Variable	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36	X	X	X	X	X	X	X	X	X		X	X	X		
Main Flight Line	500	Aircraft Inspections	Ron Brownell	Storage locker	Adhesives, cleaners, lubricants, solvents	I	<10 drums	1-6, 8, 8, 12-14, 18, 20, 23-27, 29, 30, 32, 33, 35, 36	X	X		X								X	X	X		
				55-gallon drum	Scrap metal	I	3 drums	1, 5, 6, 8, 30, 32, 33							X								
				55-gallon drum	Used oil, degreaser	I	55 gallon capacity	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X		X			
AGE Refueling Station	572	AGE Equipment Refueling	Ron Brownell	1600 gal unleaded, 1600 gal diesel , and 3000 gal JP-8 DW Steel ASTs	unleaded gasoline, diesel, and JP-8	O	1600 gal unleaded & DF2, 3000 gal JP-8	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
Aero Club	adjacent 282/ 283	Small aircraft operations	Amber Martin	3000 gallon steel DW AST	AVGAS 100	O	3000 gallon	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
Test Cell	639	Testing of aircraft engines	Ron Brownell	5000-gallon steel SW AST	JP-8	O	5000 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X									X	X	X		
Housing Maintenance	93		Gwen Harris	Shed	Water based paints		<100 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X				X			X				X		
F22 Fuel Filters	Near 288	Maintenance of fuel supply pipeline fuel filters	Jim Young	Fuel Filters	JP-8	O	<10 filters	8, 14, 18, 19, 21, 22,	X	X									X	X	X		
Base Supply	N of 140	Storage of petroleum products and various liquids	Steve Jones	55-gallon drums 1-gallon containers	AFFF, cleaning fluid, motor oil acid storage	O	<100 drums	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X	X		X				X	X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

			Material and Waste Inventory					Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
LRS	Adjacent to 137	Washing of vehicles at covered washrack - potential overflow	Steve Jones	Drum	Detergent (Blue Magic)	I	<100 gallons	8, 11, 11, 15, 18, 20, 25, 32, 33	X	X	X			X		X							
LRS	193	Maintenance and painting of vehicles	Steve Jones	55-gallon drums	Used and new antifreeze and motor oil, hydraulic fluid	I	500 gallons (total)	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X					X		X		X		
				Storage locker	Windshield wash, antifreeze, oils, brake fluid	I	<80 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
				528 gallon DW steel AST	Waste oil	O	528 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X				X		
				Drums	Simple Green	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X													
				Parts Washer	Safety Kleen	I	200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X						
LRS (Allied Trades)	195	Maintenance of vehicles	Steve Jones	Storage Locker	Paints and thinner	I	<100 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X							X	X	X		
				Drum	Paint soiled rags	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36									X				X		
				Shed	Paints and thinner	O	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
LRS	198	Maintenance of heavy equipment	Steve Jones	55-gallon drums	Used and new antifreeze and motor oil, hydraulic fluid	I	500 gallons (total)	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X					X		X		X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Material and Waste Inventory: Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	Potential Pollutants: BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
LRS	198	Maintenance of heavy equipment	Steve Jones	Storage locker	Windshield wash, antifreeze, oils, brake fluid	I	<80 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X			X	X		
				528 gallon DW steel AST	Waste oil	O	528 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X			X	X		
				Drums	Simple Green	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X													
				Parts Washer	Safety Kleen	I	200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X						
Civil Engineering (CE)	49	Warehousing	Mike Zanelli	Various	New manufactured goods (landscaping equipment, power tools, parts)	I	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36									X						
				Connex shed	New PVC cement, wood sealers	O	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36													X	X		
				Storage lockers	New acids (drain opener), paint	O	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X		X			X		X		X	X		
	54	HVAC, Electric Shop, Asbestos Records, Liquid Shop, Sign Shop, Power Production Shop	Larry Delano, Msgt Kohlieber	Storage locker	Adhesives, cleaners, lubricants, solvents, boiler/steamer treatments	I	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29,	X	X		X							X	X	X		
				AST	Diesel	O	1200 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X									X		
				Cans	Varnish	I	<10 gal	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X										X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Civil Engineering (CE)	54	HVAC, Electric Shop, Asbestos Records, Liquid Shop, Sign Shop, Power Production Shop	Larry Delano, Msgt Kohlieber	Three 385 gallon plastic DW AST	Used Oil		1200 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X			X	X		
				Storage locker	Diesel, lubricating oil, degreaser, spray paint, WD-40		<80 gal	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X			X	X		
				55-gallon drums	New oil and antifreeze	O	<500 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X		X		X		
	Adjacent to 55	Office Facility	Larry Delano, Msgt Kohlieber	one 2000 gallon DW Steel AST	Emergency Generator Diesel	O	2000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X	X	X		
	Adjacent to 51	Storage of petroleum products	Larry Delano, Msgt Kohlieber	one 2000 gallon DW Steel AST	Emergency Generator Diesel	O	<2,400 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X		X		
	Adjacent to 54	Washing of vehicles	Mike Zanelli	None	Soap		No storage	11, 15, 20, 30, 32, 33	X	X		X		X										
	55	Sheet Metal Shop - Maintenance of base housing, carpentry, paint shop	Mike Zanelli	Rack	Raw metals	O	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36									X							
				Air Conditioner	Evaporative cooling condensate																			
				Uncovered storage rack	Unfinished metal sheets and piping	O	Variable	1, 5, 6, 8, 30, 32, 33									X							
	56	Heavy Equipment Repair	Kent Smith	55 gallon drums	Motor oil, antifreeze, waste oil	I	<350 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X								X		X		
	West of 56	Washrack			Possible Detergents	O		11, 15, 20, 30, 32, 33	X	X														
	58	Water treatment operations plant, Utilities	Chuck Price	150 lb. Cl2 cylinders	Chlorine gas	I	6 cylinders	1-3, 6, 8, 12, 13, 14,		X				X		X		X	X				
	E of 58	Storage of fire suppression fluid and vehicle maintenance fluids		5- and 55- gallon drums	AFFF and antifreeze	O	300 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X												X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
Civil Engineering (CE)	59	Maintenance of base facilities - water supply	Chuck Price	Storage locker	Lubricants, paints	I	70 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X				X	X		X	X	X		
				Storage racks	Chlorine pellets	O	50 lbs.	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36						X		X							
				55-gallon drum	Simple Green	O	<10 drums	6, 8, 14,	X	X													
90 day Storage	149	Hazardous waste storage	Dale Woosley	Drums under shelter	Hazardous waste rags	O		6, 8, 14,	X	X							X			X	X		
Civil Engineering (CE)	93	Maintenance of base facilities - lawnmower repair	Mike Zanelli	Storage lockers	Paint, lubricants, gasoline	I	200 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X	X	X		
Defense Reutilization and Marketing Office (DRMO)	113	Temporary storage of miscellaneous equipment for sale to the public	Johnny Rasnick	None	Chairs, desks, file cabinets, etc.	I	No liquids or powders	2, 3, 5, 12, 13, 25, 30, 32, 33, 35, 36									X						
	115	Temporary storage of miscellaneous computer equipment for sale to the public	Johnny Rasnick	None	Computer parts, larvicide, bird repellant	I	<20 gallons	1-3, 6, 8, 12, 13, 14, 18, 23, 27, 30, 32,33, 35, 36									X						
	118	Temporary storage of hazardous and non-RCRA materials no longer used on base prior to off-site disposal (RCRA-permitted TSDF)	Johnny Rasnick	Various	Potentially any type of material used on base. Hazardous waste, paint. 1 55- gallon drum of silver and 1 55-gallon drum of	I	<15,000 gallons capacity. <1000 at time of site visit	1-3, 6, 8, 12, 13, 14, 18, 23, 27, 30, 32,33,	X	X	X	X	X	X	X	X	X		X	X	X	X	X
	Adjacent to 118	Storage and sorting of scrap and waste materials under roofed and bermed area		55-gallon drums	Used oily rags, antifreeze, oil, contaminated adsorbent material, vehicle batteries, gaskets containing asbestos	O	<100 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X				X					X		X		
Entomology	373	Equipment Storage	Mr. Balajadia	55-gallon drums	Miscellaneous equipment	I	No liquids or powders	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X		X		
German Air Force Base	314	Air Ground Equipment and Oxygen	Ursula Davis	Lockers	Oil, acid, battery fluid, diesel, gasoline, oil, paint, used oil	I	<70 gallons	1-3, 6, 8, 12, 13, 18,	X	X		X	X	X		X	X			X	X		
				55 gallon Drums	isopropanol and waste paint	I	40 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X						X	X				X		

				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
GAF	314	AGE	Ursula Davis	One steel DW 2000 gallon AST	Diesel			8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X									X		
				two plastic DW 385 gallon ASTs	Used oil	I	350 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X			X							X		
	294	Maintenance Hangar	Ursula Davis	Drum	JP-8	I	55 gallons	1-3, 6, 8, 12, 13, 18,	X	X							X					X		
				Lockers	paint, thinner	I	<70 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X					X		
				Drum, Locker	Paint and thinner mix	I	<55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X					X		
				Bowser	Used oil	I	<100	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X					X		
				Lockers	Acetone, MEK	I	<5 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X			X				
		Room 109a		Lockers	Thinner, isopropanol, paint	I	<250	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X			X	X	X		
	295	Engine Shop and Fuel Shop	Ursula Davis	Lockers	isopropanol, paint	I	<5 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X			X	X			
				Lockers	MEK, acetone, gasoline mix	I	<3 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X							X			X	X			
				Drum	Oil	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X										X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants														
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
German Air Force Base	295	Engine Shop and Fuel Shop	Ursula Davis	Lockers	Oil, used JP-8	I	<170 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X								X	X		
				One Plastic DW 385 gallon AST	Used oil	O	385 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X				X		
	21295, 21296, 21297,1223, 1227,	Hangarettes Bays 7-24	Ursula Davis	55 gallon bowsers	Used oil	I	1320 gallons	8, 14, 18, 19, 21, 22,	X	X		X					X				X		
	285	Hangarettes Bays 1-6	Ursula Davis	55 gallon bowsers	Used oil	I	55 gallons	8, 14, 18, 19, 21, 22,	X	X		X					X				X		
				Drums under shelter	Used hydraulic oil	I	<500 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
	286	Maintenance Hangar #1	Ursula Davis	55 gallon Drums	JP-8, diesel	I	220 gallons	6, 8, 14, 17, 18, 25,	X	X		X								X	X		
				55 gallon Drum	Scrap metal	I	<50 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36									X						
				One 530 gallon Steel DW	used oil			1-3, 6, 8, 12, 13, 18,	X	X		X					X				X		
				55 gallon Drum	Used oil, hydraulic fluid	I	<150 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
				Lockers	Paint, cleaners, isopropanol, epoxy, oil, adhesive, grease	I	<50 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X			X	X		
Entomology	374	Storage of agricultural chemicals	Mr. Balajadia	Small bottles	Insecticides, herbicides	I	<200 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X	X	X	X	X
	Enclosed Shed	Storage of agricultural chemicals		30 and 55-gallon drums	Pesticides	I	600 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X	X	X		X

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB
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	Material and Waste Inventory							Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
POL	702	Vehicle maintenance	TSgt Alexander or TSgt Duran	Mer Rack with 55-gallon drums	Antifreeze, lube oil, Simple Green	I	<10 drums	1-3, 6, 8, 12, 13, 18, 25, 27, 29,	X	X		X							X		X		
				600-gallon bowser	Heating oil	O	<600 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X		X		
	Adjacent to 702	Vehicle washing		55-gallon drums	Citrikleen, used rags	O	120 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X													
				Fuel bowser	Diesel	I	200 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	298		Tsgt Alexander or Tsgt Duran	1600 Gallon ASTs	Unleaded, JP-8, diesel	O	4,800 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
				10,000 gallon ASTs	Unleaded, diesel	O	30,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X			
	136	Trans- Fuel Station	Tsgt Alexander or Tsgt Duran	10,000 gallon ASTs	Unleaded, diesel	O	20,000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	703	Fuels Refueling and Maintenance	Tsgt Alexander or Tsgt Duran	55 gallon drums	Oil and Antifreeze	I	200 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X									X		
				One DW Steel 750 gallon AST	Diesel	O	750 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X			
				Three SW Steel 12,000 gallon AST	Diesel	O	12,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X			

				Material and Waste Inventory				Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
POL	703	Fuels Refueling and Maintenance	Tsgt Alexander or Tsgt Duran	One SW Steel 11,000 gallon AST	Diesel	O	11,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X			
				One SW Steel 12,000 gallon ASAT	Gasoline	O	12,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X								X			
				Fuel Truck	JP-8	I	12000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
				Fuel Truck	JP-8	O	6000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
				55 gallon drums	used oil	O	400 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
				Fuel Truck	JP-8	O	12000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	Tank Storage Area	Storage of petroleum products	Tsgt Alexander or Tsgt Duran	630,000 SW Steel AST & 841,179 SW Steel AST	JP-8, JP + 100	O	1,900,000 gallons cap.	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	Fuel Truck Parking	Parking and fueling of POL vehicles	Tsgt Alexander or Tsgt Duran	6,000-gallon fuel trucks	Diesel, gasoline, JP-8	O	Multiple trucks	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X							X	X	X		
Hazmart	806	RCRA-permitted hazardous waste storage facility	D.J Hale or SSGT Roger Davis	Shipping crates, 55-gallon drums	Liquid and solid wastes and mobilization materials	I	<100 drums	1-3, 6, 8, 12, 13, 14, 18, 23, 27, 30, 32,33, 35, 36	X	X		X							X	X	X		
				Connex Sheds, 55-gallon drums	Liquid and solid wastes and mobilization materials	O	<100 drums	1-3, 6, 8, 12, 13, 14, 18, 23, 27, 30, 32,33, 35, 36	X	X		X							X	X	X		

				Material and Waste Inventory					Potential Pollutants																
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
(Hush Houses)	11648 & 11649	Testing of aircraft engines, Hush House	SSgt Boozer	Two 2,500 gallon Steel SW ASTs	JP-8	O	5,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36																	
				55-gallons drums	Lube oils, Simple Green	I	150 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36																	
	11648 & 11649	Testing of aircraft engines	SSgt Boozer	55-gallon drum	New lube oil, hydraulic oil, cleaners	I	1 drum	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X		X					X		X			
				Storage lockers	New lube oil, grease, paint, alcohol	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X						X	X	X	X	X		
				2,500-gallon fuel trailer	New JP-8	O	2,500 gallons total cap.	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X	X	X			
RaptorSquadron	800	Maintenance of engines and trailers	SSgt Boozer	Lube Rack	Hydraulic oil, lube oil, spray paint, alcohol	I	100 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X							X		X			
				two 528 gallon Steel DW ASTs	Used Oil	O	1200 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X						X				X		
	816	Metals shop	SSgt Boozer	Storage locker	Cutting oil	I	20 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X		X					X		X			
				55 gallon drums	scrap metal	I	4 drums	1, 5, 6, 8, 30, 32, 33																
				Storage rack	Metal sheets and piping	O	Variable	1, 5, 6, 8, 30, 32, 33									X							
	820	Structural maintenance shop	SSgt Boozer	55-gallon drums	Scrap metal and wiring	I	5 drums	1-3, 6, 8, 12, 13, 18,									X							
				Storage Locker	Alcohol, paint	I	10 gallons	1-3, 6, 8, 12, 13, 18,																
	828	AGE Yard	SSgt Boozer	Bowsers	JP-8	O	<2500 gallons	8, 14, 18, 19, 21, 22,	X	X		X								X				

				Material and Waste Inventory				Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Raptor Squadron	828	AGE Yard	SSgt Boozer	Three 6000 gallon steel SW ASTs	JP-8	O	18,000 gallons	1-3, 6, 8, 12, 13, 18,	X	X		X								X			
				55 gallon drums	detergent, antifreeze, oil	O	5 drums	6, 8, 14, 17, 18, 25,	X	X		X								X			
	898	Maintenance of ground equipment	SSgt Boozer	55-gallon drums	Antifreeze, lube oil, Citrikleen, ACFT soap	I	1,000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X		X					X			X	
	863	Airfield Lighting	SSgt Boozer	2000 gallon DW Steel AST	Diesel	O	2000	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	869	Firestation #2	Chief Melo	350 gallon DW steel AST	Diesel			8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	889	Fire Pump House	Chief Melo	four 250 gallon SW steel ASTs	Diesel			8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
				55-gallon drums	Used antifreeze, petroleum products	O	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	866	Maintenance of aircraft	SSgt Boozer	Storage locker	Grease, sealant	I	10 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X		X		
				200 gallon bowser	Degreaser	I	200 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X									X		
				55-gallon drums	Used detergent, water, cadmium paint dust	I	100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X		X		
	868	Maintenance of aircraft fuel and exhaust systems	SSgt Boozer	Storage locker	alcohol, soil	I	10 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X		X					X	X	X		
				55 gallon drums	AFFF	O	300 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X													

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB
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				Material and Waste Inventory					Potential Pollutants															
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Raptor Squadron	868	Maintenance of aircraft fuel and exhaust systems	SSgt Boozer	5 gallon tubs	AFFF	O	500 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X													
				AST	AFFF	O	900 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X														
				55-gallon drums	Hydraulic, lube oil, naphthalene	I	<10 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X		X		
				AST	AFFF	I	880 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X														
	883	Armament	SSgt Boozer	Bowsers	Solvent, Detergent	I	50 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X									X	X		
				Storage Lockers	Paint, lubricant	I	10 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X	X		
				55 gallon drums	Detergent	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X														
	Adjacent to 869	Fire Station Number 2 - Washing of vehicles and aerospace ground equipment at strip drain connected to sanitary sewer	Chief Melo	Storage locker	Detergent	I	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X				X		X							
				2000 gallon DW Steel AST	Additive 100	O	2000	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X									X			
				AST	Diesel fuel	O	350	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X									X			

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB
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	Material and Waste Inventory							Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Raptor Squadron	East of 871	Fuel storage	SSgt Boozer	50,000-gallon ASTs	JP-8	O	200,000-gallon capacity	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	878		SSgt Boozer	200 gallon bowser	Safety Clean		200 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X											X		
	877	Inspection of aircraft	SSgt Boozer	Storage lockers	Paint, adhesive, alcohols, hydraulic oil	I	20 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	895	Intellegence Flight		1,600 gallon SW Steel AST	Diesel	O	1600 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X								X	X		
			SSgt Boozer	55-gallon drum	Hydraulic oil, lube oil, cleaner	I	165 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X		X		
	Hangar No. 1 of 21818	Aircraft corrosion control	SSgt Boozer	55-gallon drums	Glass beads, hazardous waste	I	<10 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X	X	X					X		X	X	X		
	Hangar Nos. 2-24 of 21810-21819	Aircraft fueling/defueling, washing, and maintenance	SSgt Boozer	Fueling system	JP-8	I	No storage	8, 12, 13, 14, 18, 19, 21, 22, 25, 27, 29, 30, 32, 33, 35,	X	X		X							X	X	X		
Closed Army Fueling Station	845	Fueling of Army vehicles	Jack Moheit	Three empty 10,000-gallon ASTs	none	O	none																
Army Fueling Station	adjacent to 845	2 Washracks (1 open, 1 closed)			Detergents			11, 15, 20, 30, 32, 33															
Aerospace Fuel Testing Laboratory	837	Chemical analysis of samples of fuels and oils	Jack Moheit	Various	Acids, alcohols, buffers, chlorides, oxides	I	50 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X				X		X		X					
Newtec	842	Maintenance of telemetry equipment	Jack Moheit	55-gallon drums	Cleaning fluid, hydraulic fluid	I	100 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X							X	X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Material and Waste Inventory: Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	Potential Pollutants: BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Newtec	842			55 gallon drum	Aluminum and steel metal shavings	I	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36									X						
	843	Maintenance of telemetry equipment - welding shop	Jack Moheit	Storage locker/cans	Adhesives, cleaners, degreaser, film developing fluids, fixer	I	50 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X		X					X	X	X		
				Storage Racks	Unfinished metal			1, 5, 6, 8, 30, 32, 33									X						
				Storage rack	Unfinished metal sheets	I	Various	1, 5, 6, 8, 30, 32, 33									X						
Newtec Motor Pool	844	Maintenance of Newtec vehicles	Jack Moheit	Storage locker	Adhesives, cleaners	I	20 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X		X					X	X	X		
				55-gallon drums	Used antifreeze and motor oil, asbestos filters	I	<500 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X		X		
Newtec	Adjacent to 845	Washing of Newtec vehicles	Jack Moheit	one 529 gallon Steel DW AST	Used motor oil	O	<750 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X		X		
	856	Painting of telemetry equipment	Jack Moheit	Storage locker, drum	MEK, toluene	I	55 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X					X		X	X	X		
				Storage shed	Solvents, paints, thinner	O	<200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	Adjacent to 856	Motor Pool's Bone yard		Various	Scrap Metals	O		1, 5, 6, 8, 30, 32, 33									X						
	881	Maintenance of telemetry equipment - carpentry shop	Jack Moheit	Storage locker	Stains and water repellent	I	50 gallons	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X							X	X	X		

	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Material and Waste Inventory: Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities	Recommended BMPs	Potential Pollutants: BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Newtec	897	Supply Logistics	Jack Moheit	Storage lockers	Cleaners, lubricants	I	60 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X			X				X	X	X		
	897	High Speed Photo Shop	Jack Moheit	Various	Distilled water, photochemicals	I	Various																	
	897	High Speed Photo Shop	Jack Moheit	Shed	Metals, gases	O	Various	1-6, 8-15, 17, 18, 20, 23-27, 29-32, 33, 35, 36	X	X		X					X		X	X	X		
Non-Destructive Inspections (NDI)	851	Inspection of aircraft parts by x-ray and black-light analysis	Ssgt Boozer	55-gallon drums	Wax, detergent, used oil	I	200 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X				X		X							
				Developer and tanks	Photochemicals, silver recovery	I	20 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X			X	X		
				110-gallon baths	Penetrant, rinsate	I	220 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
Phillips Balloon Laboratory	849	Balloon Operations		55-gallon drum	Metal shavings	I	55 gallons	1, 5, 6, 8, 30, 32, 33			X						X						
				Storage locker	Oil	I	<25 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X									X		
	850	Balloon and parachute assembly		300-gallon steel DW AST	Diesel	O	250 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X		X		
49th Materiel Maintenance Group (BEAR Base)	901	Maintenance of aircraft ground support equipment	TSgt. Kay	55-gallon drums	Used motor oil, used antifreeze, and waste diesel	I	1,000 gallons (total)	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X	X	X		
				Two 528 steel DW gallon ASTs	used oil	O	500 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X				X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

	Material and Waste Inventory							Potential Pollutants														
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
49th Materiel Maintenance Group (BEAR Base)				Connex sheds	Used fuel filters, rags, used lube oil, paint	O	Variable	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	Adjacent to 901	Miscellaneous equipment storage	TSgt. Kay	None	Miscellaneous equipment	O		1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36									X						
49th Materiel Maintenance Group (BEAR Base)	1225&1227	Chemical storage buildings	TSgt. Kay	Storage buildings	Pesticides, oils, paints	I	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X		X		X					X	X	X	X
	W of 902	Fuel Storage	TSgt. Kay	One steel DW 4000 gallon AST	diesel	O	4,000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	W of 902	Fuel Storage		One steel SW 5,250 gallon AST	Diesel	O	5250 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	NE of 906	Fuel Storage	TSgt. Kay	One steel SW 750 gallon AST	Unleaded fuel	O	750 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X								X			
	918		TSgt. Kay	Above Ground tank	Potable Water	O	500 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36															
	958	Hazardous Storage	TSgt. Kay	Variable	Various hazardous materials	O	Variable	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X	X	X					X		X	X	X		
Test Track Support Facilities	Facility under construction	Spent rocket motor storage	John Morris/Artis Allen	Various	Spent Nike missile and Russian rocket motors	O	Approx. 200 motors	5, 6, 8, 18, 25, 27, 30, 32, 33									X			X			
	NE of 1166	Storage of chemicals	John Morris/Artis Allen	55-gallon drums	Methanol, rust inhibitor, anti-coagulant	O	<700 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X											X		
	S of 1166	Wash Rack			Detergents			11, 15, 20, 30, 32, 33	X	X													

	Material and Waste Inventory							Potential Pollutants														
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
Test Track Support Facilities				2000 gallon DW Steel AST	Diesel	O	2000 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X									X			
				1000 gallon steel DW AST	Unleaded fuel	O	1000 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X									X			
	1173	Fabrication of sled and aircraft components Machine Shop	John Morris/Artis Allen	Storage rack	Aluminum and steel	O	NA	1, 5, 6, 8, 30, 32, 33									X						
	1173	Fabrication of sled and aircraft components Machine Shop	John Morris/Artis Allen	Drums	Water soluble oil, coolant	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X										X		
				Drums	Aluminum and steel scrap metal	I	<1400 gallons	1, 5, 6, 8, 30, 32, 33									X						
				Drums	Epoxy, oil, hydraulic fluid, Simple Green	I	<240 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X					X		
	1178	Fabrication of sleds, Sheet metal Weld Shops	John Morris/Artis Allen	Storage locker	Adhesives, cleaners, solvents	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X		X					X	X	X		
				2 Water Jet cutters	water and sludge cuttings	I		1, 5, 6, 8, 30, 32, 33	X	X							X						
				Storage rack	Dummy rocket motors, scrap metal	O	Variable	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36									X						
	1178A	Painting of sleds	John Morris/Artis Allen	5-gallon buckets	Paint	I	<100 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
				Shed	paint, thinner	O	<1000 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	E of 1180	Fueling of vehicles, equipment storage	John Morris/Artis Allen	2,000-gallon AST;	Diesel	O	<2000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	1185	Sand blasting, heat treating, and metal shop	John Morris/Artis Allen	500-gallon open tank	Quenching oil	I	500 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X		X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants														
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
Test Track Support Facilities				400-gallon AST	Safety Kleen	I	500 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X		X		
	1185	Welding, metal fabrication	John Morris/Artis Allen	Open tank, 80% underground	Quenching oil	I	1500 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X		X		
	1185	Welding, metal fabrication		Oppen tank, 80% underground	Quenching oil	I	1800 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X					X		X		X		
	1185	Metals storage		Storage racks	Aluminum and steel	O	200' by 200' area	1, 5, 6, 8, 30, 32, 33									X						
Wastewater Treatment Plant		Treatment of sewage	Dale Woosley	2,000-gallon DW steel AST. Compressed gas cylinders of chlorine and sulfur dioxide	Sodium Hydroxide, chlorine, sulfur dioxide	I	<2,000 gallons < 2 1 ton cl2 containers <8 150lb cylinders SO2	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36		X				X		X								
				Drum	Waste Oil	O	55 gallons	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
				4,000-gallon DW steel AST	Diesel	O	<4,000 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X		X		
T-38 Operations	578	Maintenance and fueling of T-38 aircraft	Ron Bronwell	Storage lockers	Adhesives, grease, solvents, paint, expired shelf life material, Brulin degreaser	I	<240 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
				Drum	Used Oil	O	55 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X				X		
Tracor, Army Air Operations Directorate, and 46th Test Group			Larry Narveson	Fuel bowsers	JP-8	O	<10 drums	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X							X	X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB
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			Material and Waste Inventory					Recommended BMPs	Potential Pollutants														
	Associated Building Number(s)	Industrial Activity or Operation	Point of Contact	Container(s)	Material(s) or Waste(s)	Indoor/ Outdoor	Approximate Quantities		BOD	COD	TSS	O & G	NO_2/NO_3	pH	Ammonia	Chloride	Metals	Oxides	TPH	VOCs	SVOCs	Insecticides	Pesticides
Tracor, Army Air Operations Directorate, and 46th Test Group	1073 (Walk-in locker)	Waste accumulation point	Larry Narveson	Storage locker with 55-gallon drums	Hydraulic oil	I	60 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X	X	X					X		X	X	X		
	1058	Aerospace ground equipment maintenance	Larry Narveson	Storage locker	New adhesives, grease, solvents, paint	I	<100 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
	1058	Aerospace ground equipment maintenance	Larry Narveson	Storage locker, one 530 gallon steel DW AST	Used oil, JP-8	O		1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
		de-icing wings prior to flight operations	Larry Narveson	gycol or ureah based deicing agents	used gycol or ureah based deicing agents	O	<1,000 gallons per deicing operation	37-40	X	X		X											
	1001			Jet Fuel Truck	JP-8	O	2000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X			X	X		
	1079	Helicopter maintenance	Damen Howe/David Stech	Storage lockers, One 528 gallon steel DW AST and fuel bowsers	Adhesives, grease, solvents, paint, used oil unleaded gasoline	I	<10 drums 265 gal unleaded AST 550 gal used oil bowser	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X		X	X	X		
				AST	Solvents	I	<50 gallons	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X							X	X	X		
				Washrack		O		11, 15, 20, 30, 32, 33	X	X													
				Fuel Bowsers	Unleaded and used oil	O	1000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X					X			X	X		
				Fuel bowsers	JP-8	I	325 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		

INDUSTRIAL ACTIVITIES AND ASSOCIATED MATERIAL AND WASTE INVENTORY AT HOLLOMAN AFB

				Material and Waste Inventory					Potential Pollutants														
	Associated Building Number(s)	**Industrial Activity or Operation**	**Point of Contact**	**Container(s)**	**Material(s) or Waste(s)**	**Indoor/ Outdoor**	**Approximate Quantities**	**Recommended BMPs**	**BOD**	**COD**	**TSS**	**O & G**	**NO_2/NO_3**	**pH**	**Ammonia**	**Chloride**	**Metals**	**Oxides**	**TPH**	**VOCs**	**SVOCs**	**Insecticides**	**Pesticides**
Tracor, Army Air Operations Directorate, and 46th Test Group				Fuel bowsers	unleaded	I	325 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
				55-gallon drums	Lube oil, grease	I	<10 drums	6, 8, 14, 17, 18, 25, 30, 32, 33, 35, 36	X	X		X							X		X		
Lockheed Martin, 6th Test Group; and Detachment 1, 82nd Aerial Target Squadron	1080	Aircraft maintenance QF-4 Drones	Paul Junge	850 gallon Fuel bowsers	JP-8, diesel, and unleaded	O	6000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
	1080	Aircraft maintenance QF-4 Drones	Paul Junge	One 358 plastic DW AST	Used Oil	O	358	1-3, 6, 8, 12, 13, 18, 25, 27, 29, 30, 32, 33, 35, 36	X	X		X					X				X		
Lockheed Martin, Army Air Operations	Taxiway adjacent to 1058	Aircraft fueling QF-4 Drones	Paul Junge	Drums	JP-8	O	<1000 gallons	8, 14, 18, 19, 21, 22, 25, 30, 32, 33, 35, 36	X	X		X							X	X	X		
Lockheed Martin	Adjacent to 1083	Waste oil and waste gasoline accumulation	Paul Junge	Two mobile 800-gallon ASTs and one 500-gallon AST within bermed area	Waste JP-8 (800-gallon ASTs) and waste gasoline (500-gallon AST)	O	<2,100 gallons	8, 10, 14, 17, 18, 21, 25, 31-33, 35, 36	X	X		X							X	X	X		
Asphalt/Concrete Recycling Center		Storage of concrete and asphalt for reuse	Bill Ford	Open storage	Concrete and asphalt rubble	O	NA	30, 33-36			X						X						

BOD	Biological Oxygen Demand (5-day)
COD	Chemical Oxygen Demand
TSS	Total Suspended Solids
O & G	Oil and Grease
TPH	Total Petroleum Hydrocarbons
VOC	Volatile Organic Compounds
SVOC	Semivolatile Organic Compounds