

# **Port of Portland Terminal 6**

P.O. Box 3529  
Portland, OR 97208-3529

## **Stormwater Pollution Control Plan Port of Portland Terminal 6 Facility File No. 125313**

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March 2, 2021



## **Title Page**

# **STORMWATER POLLUTION CONTROL PLAN For**

**Site Name: Port of Portland Terminal 6  
Site Operator: Port of Portland**

**DEQ File Number: 125313  
EPA Number: ORR807319**

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**Plan Date:**  
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- D Best Management Practices for anti-icing and de-icing pavements
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## Acronyms

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AST	aboveground storage tank
BMP	container distribution center
CDS	best management practice
CEG	certified engineering geologist
CERCLA	Comprehensive Environmental Recovery, Cleanup, and Liability Act
CFR	Code of Federal Regulations
COD	chemical oxygen demand
CWA	Clean Water Act

DEQ	Oregon Department of Environmental Quality
DMR	Discharge Monitoring Report
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning Community Right to Know Act
mg/l	milligrams per liter
ml	milliliter
MSDS	Material Data Safety Sheet
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rule
PE	professional engineer
S.U.	Standard Unit
SARA	Superfund Amendments and Reauthorization Act
SIC	standard industrial classification
SPCC	Spill Prevention, Control, and Countermeasure Plan
SWPCP	Stormwater Pollution Control Plan
TMDL	total maximum daily load

## **Section 1: Introduction**

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This Stormwater Pollution Control Plan (SWPCP) was prepared to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit 1200-Z industrial stormwater permit, effective August 1, 2017.

The Terminal 6 SWPCP applies to the Port of Portland's (Port) permitted area of Terminal 6 shown in Figure 2 and the discharges associated with industrial activities to both the Columbia Slough and the Columbia River. This SWPCP was written to address industrial activities and best management practice requirements applicable to the Port.

The Terminal 6 SWPCP was written to address industrial activities and best management practice requirements applicable to the Port of Portland (Port), tenants, operators, contractors and similar entities at Terminal 6. Each entity performing an industrial activity is responsible for stormwater compliance in portions of the site they control. If industrial activities are planned that are not addressed in this SWPCP appropriate changes will be made to the SWPCP consistent with the timelines identified in the 1200-Z permit or in a future permit renewal application to DEQ.

Stormwater at Terminal 6 primarily discharges to the Port's Municipal Separate Storm Sewer System (MS4). There is one drainage basin that discharges to the City of Portland's MS4. The Port is a Co-permittee with the City of Portland on the NPDES MS4 Permit Number 101314 (MS4 Permit), issued in 2011. The MS4 Permit requires the Port to develop and implement a Stormwater Management Plan (SWMP). The primary component of the Port of Portland SWMP is a program of Best Management Practices (BMPs) to minimize pollutant discharge into surface waters to the maximum extent practicable.

The BMP components outlined in this SWPCP also meet the requirements of the Port's MS4 Permit with respect to Terminal 6. Although not required by the 1200-Z permit, the MS4 Permit requires the Port to implement an illicit discharge detection and elimination program and a program to minimize pollutants related to pesticide and fertilizer activities for all Port facilities, including Terminal 6. These two additional MS4 Permit requirements are implemented as outlined by the Port's Illicit Discharge Detection and Elimination Procedure Manual and the Program Description for Pesticide and Fertilizer Use on Port Property.

The SWPCP will be reviewed periodically to ensure the elements of the plan are effective and that the plan is in compliance with the terms of the 1200-Z permit. Revisions to the SWPCP will be made as required to reflect changing conditions (see section 1.6). SWPCP revisions will be in accordance with Schedule A.8 of the 1200-Z permit. Revisions to the plan will be tracked using the Record of Changes Form provided in Appendix B.

A current copy of the SWPCP will be kept on site. A copy will be made available upon request to government agencies responsible for stormwater.



## 1.1 Purpose of Plan

This plan identifies potential sources of pollution that may affect the quality of stormwater discharges associated with the Port's Terminal 6 facility, evaluates the potential for stormwater contamination from these sources, and presents the management practices that will be used at the facility for reduction of pollutants in stormwater discharges. This SWPCP will accomplish pollution prevention by meeting three main objectives:

1. Identify the potential sources of pollution that affect the quality of stormwater discharges,
2. Describe the implementation of practices to reduce pollutants in stormwater discharges and
3. Address compliance terms and conditions of the 1200-Z permit issued by DEQ.

## 1.2 Plan Organization

The SWPCP has been designed to follow the requirements of the NPDES General Permit for Stormwater Discharges Associated with Industrial Activities issued by the State of Oregon and EPA. Specific requirements of the 1200-Z permit are presented in bold italics in the SWPCP and followed by the appropriate information necessary to address the requirements. The components of the 1200-Z permit and the corresponding sections of this SWPCP are listed in the accompanying SWPCP checklist.

## 1.3 Definitions

The following definitions are defined by the stormwater discharge permits issued by DEQ and EPA:

**Corrective Action Plan** means an addendum to the SWPCP developed in response to modification to the SWPCP or in response to a benchmark exceedance.

**Best Management Practices (BMPs)** are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, and/or drainage from raw material storage. (EPA)

**CERCLA** is the Comprehensive Environmental Response, Compensation, and Liability Act. It is commonly referred to as the Superfund Act. (EPA)

**Clean Water Act (CWA)** was formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972. (EPA)

**EPCRA** is the Emergency Planning Community Right to Know Act. (EPA)

**Hazardous Materials** as defined in *The Code of Federal Regulations*, 40 CFR 302 - Designation, Reportable Quantities, and Notification.

**Material Handling Activities** include the storage, loading and unloading, and transportation or conveyance of raw material, intermediate product, finished product, by-product, or waste product.

**Non-stormwater Discharges** are not permitted under the new 1200-Z permit except where specifically authorized. This permit does not authorize the discharge of process wastewaters, vehicle wash waters, cooling waters, or any other wastewaters associated with the facility. Other discharges must be addressed in a separate NPDES permit.

**Non-Port Operators** means any entity leasing property owned by the Port or any entity performing activities at Terminal 6 subject to the tariff or other leasing agreement and with an associated with the 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).

**Point Source Discharge** is a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.

**Reportable Quantities** are those quantities of hazardous substances listed in Table 117.3 of *The Code of Federal Regulations*, 40 CFR 117.

**Significant Material** 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 the Comprehensive Environmental Recovery, Cleanup, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

**Significant Quantity** is the volume, concentration, or mass of a pollutant in a stormwater discharge that can cause or threaten to cause pollution, contamination, or nuisance, adversely impact human health or the environment, and cause or contribute to a violation of any applicable water quality standards for the receiving water.

**Stormwater** is the runoff from a storm event, snow melt runoff, and/or surface runoff and drainage. It does not include infiltration and runoff from agricultural land.

**Stormwater Associated with Industrial Activity** is the discharge from any conveyance that is used for collecting and conveying stormwater directly pertaining 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. 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 40 CFR 401); 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 finished products; and areas where industrial activity has taken place in the past at which significant remaining materials are exposed to stormwater. The term also includes stormwater discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate product, final products, waste materials, by-products, or industrial machinery **are exposed to stormwater**. Material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished 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 (including industrial facilities that are Federally, State, or municipally owned or operated that meet the descriptions of the facilities listed in this paragraph) include those facilities designated under 40 CFR 122.26(a)(1)(v).

**Toxic Concentration** refers to lethality to aquatic life as measured by a significant difference in lethal concentration between the control and 100-percent effluent in an acute bioassay test.

## 1.4 Information Sources

Sources of information used to assist with the development of this SWPCP include the following:

- Port of Portland, 2008 Terminal 6 Stormwater Pollution Control Plan
- Port of Portland 2017, Spill Prevention Control and Countermeasure Plan
- ICTSI Oregon, Inc. 2014 1200-Z Stormwater Pollution Control Plan
- ICTSI Oregon, Inc. 2014 1200-COLS Stormwater Pollution Control Plan
- ICTSI Oregon, Inc. 2016 Spill Prevention Control and Countermeasure Plan
- Port of Portland Terminal 2 2017 Stormwater Pollution Control Plan
- Oregon General Permit, 1200-Z (August 1, 2011 through July 31, 2022)
- NPDES 1200-Z, 1200-ZN and 1200-COLS General Permits, applying for Permit Coverage, Developing Your Stormwater Pollution Control Plan: Technical Assistance for Industrial Operators, December 2011. Oregon DEQ
- 40 CFR Part 122 (Final Rule)

Information was also provided by the following individuals who are knowledgeable in stormwater management and familiar with the facility:

- Dorothy Sperry, Senior Water Resources Manager
- Danelle Peterson, Water Quality Manager
- Blake Hamalainen, Environmental Technician
- Richard Vincent, Environmental Planning Manager
- Dennis Sullivan, Hazardous Materials Specialist

- Amanda Coleman, Engineering Design Technician
- Justin McCarley, GIS
- Pat Grill, Marine Maintenance Manager
- Russ Ziemer, Marine Facility Maintenance Plumbing
- John Akre, Terminal Business Manager

## **1.5 Non-Port Operators**

Terminal 6 tenants referenced in the SWPCP and entities performing industrial activities under the current tariff are covered under the 1200-Z permit and will comply with the permit and the Terminal 6 SWPCP.

Non-Port operators providing services under the Tariff are responsible for complying with all of the following stormwater requirements:

- Implement planned control measures and best management practices identified in the SWPCP.
- Conduct and document monthly inspections of industrial areas and activities exposed to stormwater, stormwater control measures, structures, catch basins, and treatment facilities including oil/water separators and catch basin filters in accordance with Schedule B.7.
- Perform any necessary preventative maintenance of stormwater control structures and facilities on leasehold.
- Participate in benchmark exceedance investigations and provide information as requested by the Port, local municipality or DEQ.
- Retain copies of inspection forms, preventative maintenance and repair documentation for a minimum of three years and provide copies to the Port, local municipality or DEQ upon request.
- Maintain a written schedule for regular pick-up and disposal of waste materials.
- Develop and implement a Spill Prevention and Response Plan (Spill Plan). The plan must include methods to prevent spills along with cleanup and notification procedures.
- Maintain a copy of the Spill Plan and adequate spill cleanup materials on-site at all times.
- Conduct and document an employee education program to inform personnel of the components and goals of the SWPCP and the Spill Plan consistent with 1200-Z permit requirements. Education and training should occur at the time of hire and annually thereafter.
- Entities performing industrial activities under the current Tariff may be required to provide a written plan to the Port before services commence outlining, schedule of activities and inspection, potential pollutants, preventative maintenance procedures, and best management practices to prevent or reduce the discharge of pollutants to waters of the state.
- Review the SWPCP whenever facility operations change.
  - Ensure activities are adequately represented in the SWPCP for compliance and accuracy.
  - Submit any revisions or updates within two weeks to the Port's Environmental Department.

## **1.6 SWPCP Revisions**

The SWPCP must be updated to reflect any changes to activities at the Site within 30 days of the change. Not all revisions to the SWPCP require re-submittal of the SWPCP. SWPCP revisions must be submitted only if they are made for any of the following reasons:

- Change in site contact(s);
- In response to a corrective action or inspection;
- Changes to the site or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate; and
- Changes to the monitoring locations or outfalls.

If there are name changes or other revisions to this SWPCP, the Port will submit one paper and one electronic copy (.pdf), of the revised SWPCP to the Oregon DEQ. The Port will also keep a copy of the revised SWPCP at the Port office and document the changes in the Record of Change form in Appendix B.

## **Section 2: Site Description**

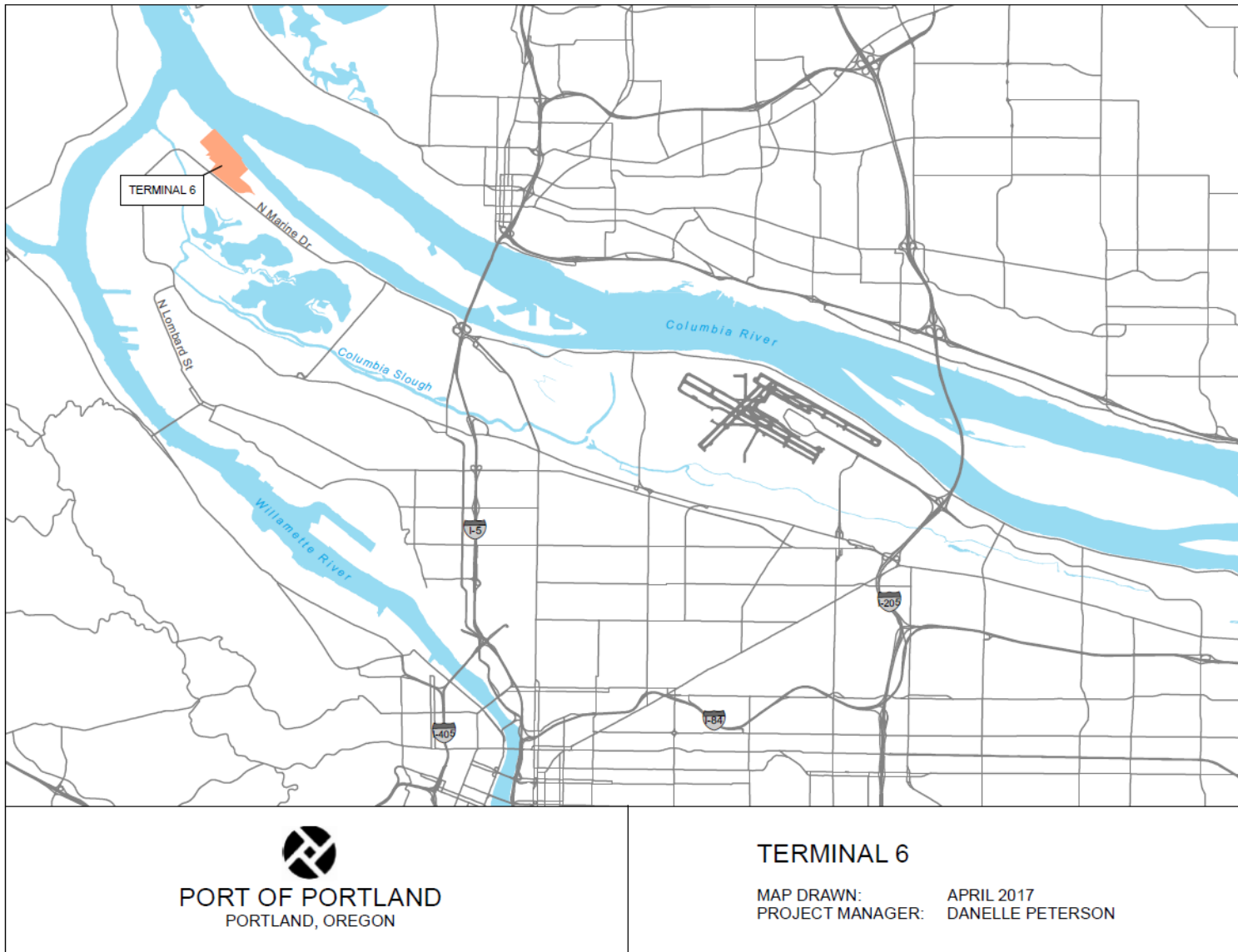
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The Port Terminal 6 facility is located adjacent to the Columbia River in the Rivergate Industrial District of Portland, Multnomah County, Oregon (General Location Map, Figure 1). Facility location and emergency contact information are presented in Table 2.1. Stormwater from the Port Terminal 6 facility drains via a system of catch basins and pipes that flow to three outfalls on the Columbia River and one outfall on the Columbia Slough (see Section 2.6 below).

**Table 2-1: Facility Location and Emergency Contacts**

Facility Name:	Port of Portland Terminal 6	
Facility Address:	7201 North Marine Drive, Portland, OR 97203	
Business Hours:	8:00am – 5:00pm	
Emergency Contact: (Spills and Security)	Marine Security Office	Phone #: (503) 240-2230
Stormwater Contact:	Danelle Peterson Water Quality	Phone #: (503) 415-6722 or (503) 201-5099
Port Office Main Number:		Phone #: (503) 415-6000

**Figure 1 General Location Map**



## 2.1 Receiving Waters

Terminal 6 is located in an industrialized area adjacent to the Columbia River. The site topography is relatively flat. Paved areas at the site are engineered with slopes for drainage (Figure 2). Surface water from asphalt-paved areas is directed toward on-site catch basins located throughout the site. The facility drains via a series of catch basins and collection pipes that predominately flow to the Columbia River via three outfalls. A section of the southern portion of Terminal 6 drains to the Columbia Slough. There are two large areas that infiltrate through sand and gravel that do not have a discharge point. The impervious area, total acreage, and final discharge location is summarized for each drainage basin in Table 2.2 below.

### 2.1.1 Drainage Basin and Impervious Area Summary

**Table 2-2: Drainage Basin Area in Acres**

Drainage Basin	Impervious Area Acres	Total Area Acres	Drainage area Discharge Location
Basin I	25.9	48.2	Stormwater infiltrates. No storm system in the area.
Basin J	8.2	13.6	Stormwater infiltrates. No storm system in the area.
Basin K	20.0	20.4	Columbia River
Basin L	57.2	60.3	Columbia River
Basin M	11.9	15.1	Columbia Slough
Basin O	37.0	38.1	Columbia River

## 2.2 Drainage Area Descriptions

There are six drainage basins Terminal 6 within the permit boundary. Drainage basins, I and J completely infiltrate through sand and gravel, there is no storm system in these drainage areas and therefore no discharge. Drainage basins K, L, and O discharge to the Columbia River. Drainage basin M discharges to the Columbia Slough. Below is a description of each drainage basin.

### Basin I

Basin I is approximately 48.2 acres with 25.9 acres of impervious surface. The remaining acreage consists primarily of rail tracks separated by gravel areas. Buildings are not present in this basin. This area, referred to as the Intermodal rail yard, infiltrates through gravel. No storm sewer system infrastructure exists in this basin.

### Basin J

Basin J is approximately 13.6 acres with 8.2 acres of impervious surface. Stormwater in this area infiltrates through the gravel and is not serviced by a storm sewer system. There are no buildings present in the basin.



### **Basin K**

Basin K is approximately 20.4 acres with 20 acres of impervious surface. Block houses containing electrical equipment are in this basin. All stormwater drains towards on-site catch basins. Basin K is serviced by a stormwater piping system that discharges through a Port-owned outfall, designated Outfall K, to the Columbia River. The monitoring location 1 (001) is at the river outfall located in the northeast corner of the basin.

### **Basin L**

Basin L is approximately 60.3 acres with 57.2 acres of impervious surface. Basin L is served by a storm sewer system that discharges to the Columbia River through Outfall L, beneath the dock structure of Berth 604. The row of catch basin laterals closest to the dock's edge are treated by two oil water separators (OWS). One of the OWS treats the east lateral and the other treats the west lateral. After flowing through their respective OWS both laterals join together and flow through a Contech stormwater treatment vault located in the north-central area of the basin. Once the stormwater is treated it flows from the vault and discharges through Outfall L. The monitoring location is in a manhole upstream of Outfall L, sample point (002). This area contains the majority of the buildings on the site including the following:

- Administration building 7201 (wooden structure);
- Transtainer building (metal structure) - maintenance area for reach stackers;
- Former Gearlocker building/Top loader maintenance building 7151 (metal structure) maintenance of reach stackers and crane spreader bars;
- Crane maintenance shop 7209 (metal structure) –various crane maintenance and storage area for spare parts;
- Waste receiving building 7199 (metal roof over concrete slab) - covered storage area for solid wastes awaiting disposition;
- Berth 605 dock office building 7101 three story wood structure; *and*
- Several concrete block houses containing electrical equipment

In addition to the activities that take place inside buildings, the following activities take place outdoors:

- Yard hustler parking and fueling;
- Transformer containment areas;
- Employee auto parking near the administration building and the crane maintenance shop;
- Hazardous cargo storage in a designated area;
- Container steam cleaning area (drains to the City's sanitary sewer system);
- Equipment cleaning area (drains to the City's sanitary sewer system);
- Indoor or under cover storage of solvents and oils necessary for vehicle maintenance and site activities; *and*
- Street sweeping solids and decant water storage in bins (drains to the City's sanitary sewer system).

Drainage Basin L also contains a Hazardous Cargo Area. The hazardous cargo area is used to temporarily store any hazardous container tankers being imported to or exported from the Facility. The area is also used to temporarily store containers leaking fluids.

The area is divided into three distinct zones and has three stormwater shut-off valves, or stormwater sluice gates, to control any spills or leaks in each zone. The zones and shut-off gates are clearly marked with yellow paint to identify which gate to use in case of an emergency or spill. The gate operation is checked monthly by MFM plumbers. MFM security and environmental staff have been trained on how to operate the shut-off valves. All catch basins in this area are also clearly marked to indicate which sluice gate they direct flow.

### **Basin M**

Basin M is 15.1 acres with 11.9 acres of impervious surface. One industrial building is located within drainage basin M, the US Customs, Gear Locker and Warehouse building 7515, also known as the CDC. The CDC is approximately 200,000 square feet and consists primarily of warehouse space with offices located in the southwestern portion. The CDC building is used for storage of materials and general maintenance and repair of vehicles, reachstacker, equipment, and containers, including welding. The main secured entrance and gate house are located in the western portion of the drainage basin.

There is an exterior used oil Aboveground Storage Tanks (AST), equipped with an alarm system, located on the west side of the CDC building. A fueling area is also located west of the CDC building. Two ASTs are used to store fuel (12,000-gallon diesel capacity and 4,000-gallon gasoline capacity) and are located adjacent to the fuel area. The storm system serving the fuel island was tied into the City sanitary sewer in 2011 by Port Maintenance. Water flows from the fuel pad area through an OWS and then to the City's sanitary sewer. A valve exists downstream of the OWS that can be closed in the event of a spill to protect the sanitary sewer. A second valve is located on the lateral south of the sanitary catch basin which is just southwest of the fuel pad.

The areas adjacent to the CDC building are primarily developed with asphalt concrete for parking, concrete loading areas, and graveled areas along the northeastern and eastern portions. Vegetated areas are limited to landscaping along the main entrance road off North Marine Drive and the southwestern portion of the basin.

The basin topography generally slopes from northeast to the southwest. Paved areas are engineered with slopes for drainage (Figure 2). Surface water from impervious areas is directed toward on-site catch basins located throughout the site.

Drainage Basin M is serviced by a storm sewer system that discharges to the City's MS4, which also drains North Marine Drive. Stormwater discharges from drainage basin M to the Columbia Slough via a City-owned outfall, Outfall M. The monitoring point (sample point 003) is located on Port property upstream of the City's outfall in a manhole southwest of the CDC building.

### **Basin O**

Basin O is approximately 38.1 acres with 37 acres of impervious surface.

Most buildings in the basin are wood and metal construction. The Container Yard Gate building is constructed of wood and metal and the truck entrance canopy is composed of metal. There is also an outgoing metal OCR shed and the Berth 603 dock office.

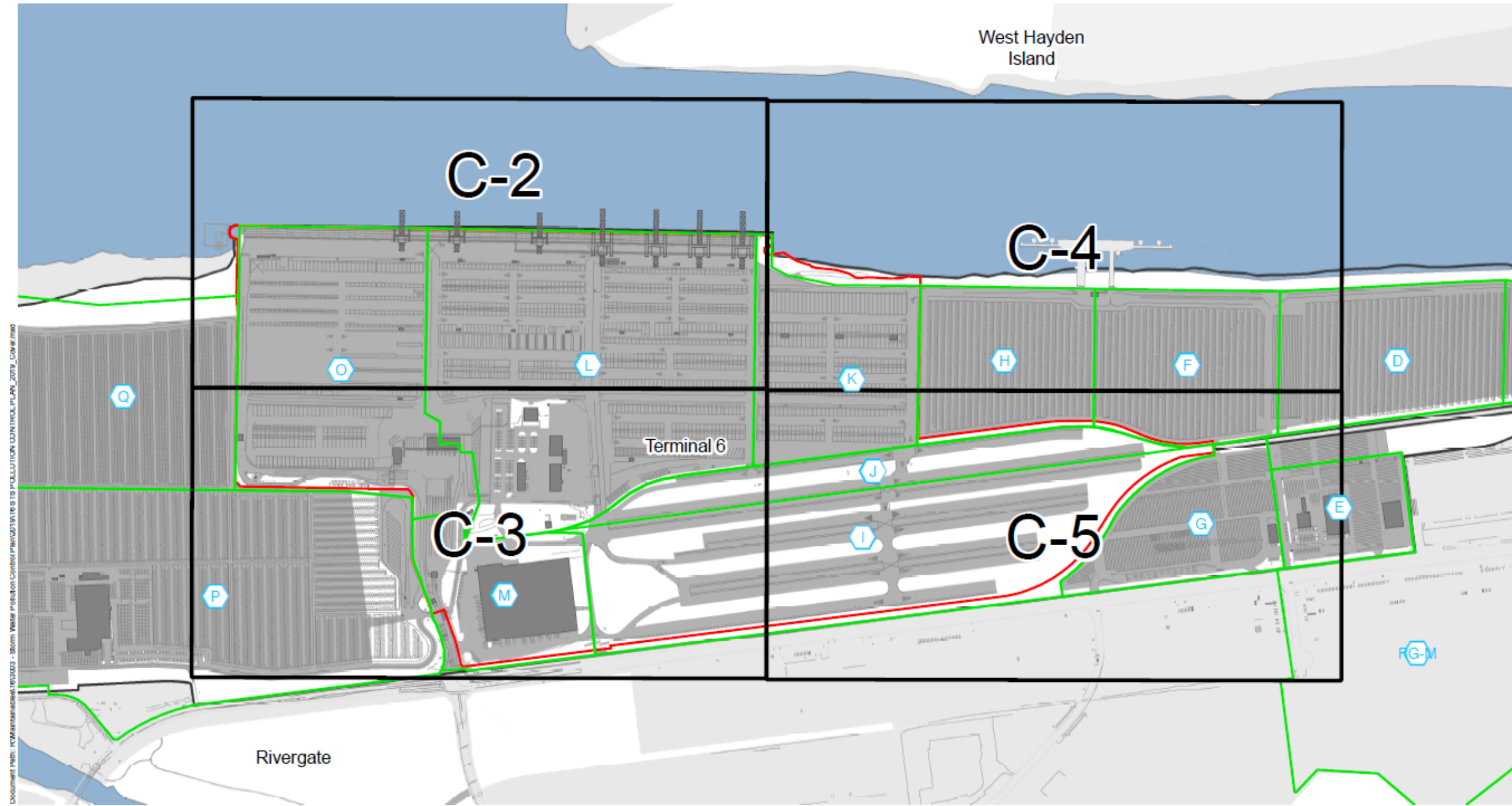
Basin O is serviced by a stormwater piping system, which discharges through Outfall O, to the Columbia River adjacent to Berth 603. All stormwater drains towards on-site catch basins. There are four catch basins directly adjacent to the Berth 603 dock office that connect to an oil-water separator which treats the water prior to being discharged through Outfall O. Stormwater samples are collected at the outfall to the Columbia River (monitoring point 004).

### **Drainage Characteristics Site Map**

Drainage characteristics for the areas of industrial activity, as required in the general permit, are shown in Figure 2, Site Map, and includes the following attributes:

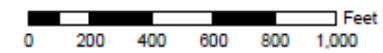
- Drainage patterns
- Drainage and drainage discharge structures (catch basins piping, and outfall)
- Drainage Area for the outfall
- Paved areas, equipment, tanks, and buildings in the drainage area
- Stormwater structural control measures (catch basin inserts and fueling pad that drains to oil/water separator and then to the storm sewer)
- Areas of outdoor storage of significant materials storm sewer lines
- Structural control structures (catch basins, OWS and treatment vaults)
- There are no stormwater features to reduce flow or minimize impervious surfaces
- Used Oil is stored in an AST located outside of the CDC on the west wall.
- Location of surface water (Willamette River and Columbia Slough; there are no known wetlands or springs at the facility)
- There are no known non-stormwater discharges. The following sanitary discharges occur onsite: Waste from administrative building kitchens and bathrooms; the shop wash pad via an oil/water separator; and the fueling pad via an oil/water separator.
- Location of sampling points
- Loading and unloading areas
- Material storage areas
- There are no outdoor manufacturing areas within The Port of Portland facility.
- There are no known water or dry wells at the facility
- There are no areas used for the treatment, storage, or disposal of wastes except for dumpsters for municipal refuse and dunnage.

Figure 2 Site Map

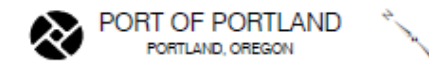


Basin	Total Acres	Impervious Acres	Percent Impervious
I	62.23	34.07	54.74
J	13.64	8.17	59.90
K	20.43	20.00	97.91
L	60.34	57.17	94.74
M	15.21	11.90	78.26
O	37.92	36.79	97.01

- STORM WATER PERMIT BOUNDARY
- STORM BASIN BOUNDARY
- 3 STORM BASIN NUMBER



STORM WATER POLLUTION CONTROL MAP  
TERMINAL 6



SUBMITTED BY  
DANIELLE PETERSON

DRAWING NO.  
TS 2019-3003 (C1) 1/5

Figure 2 Site Map

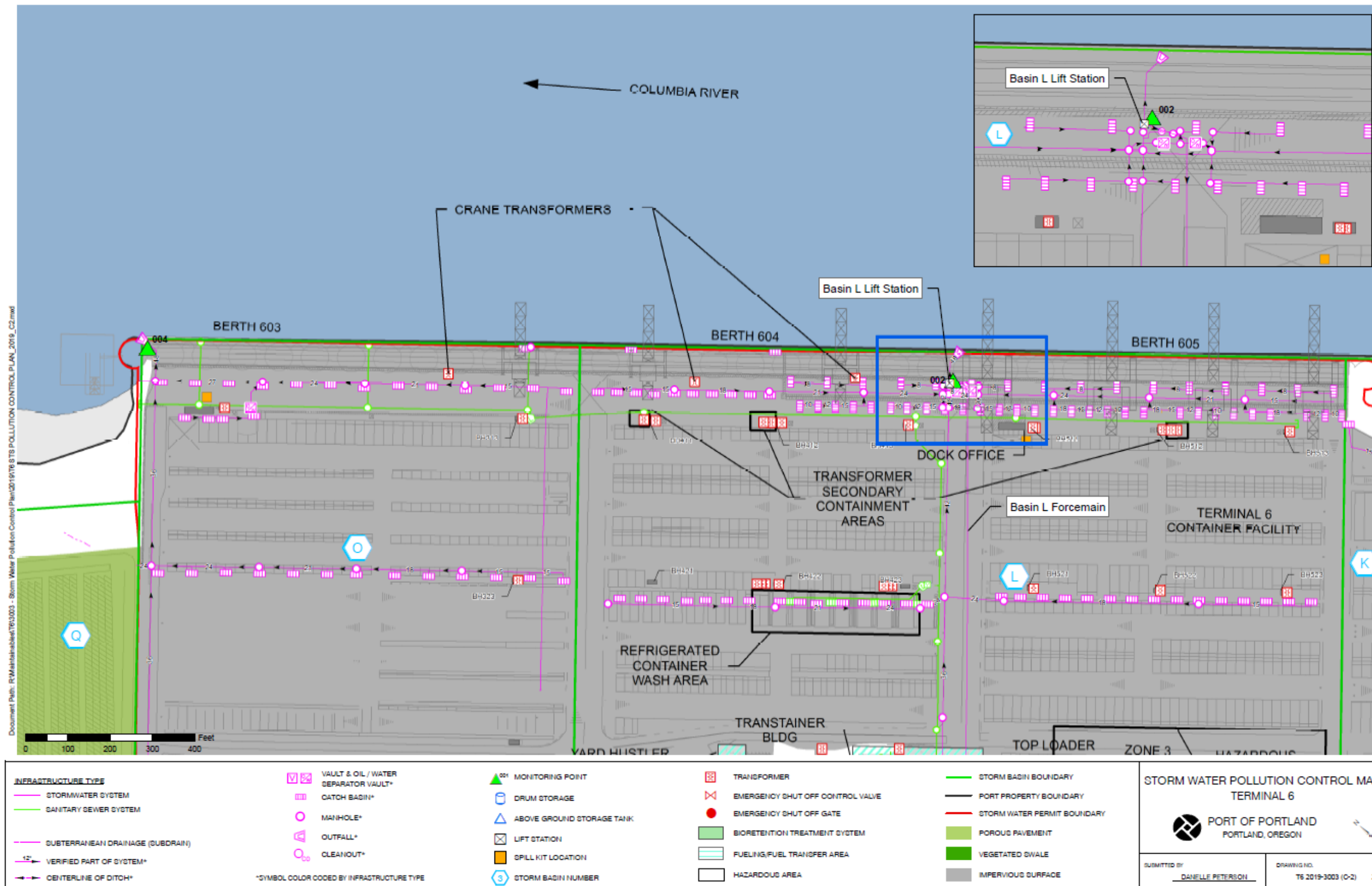
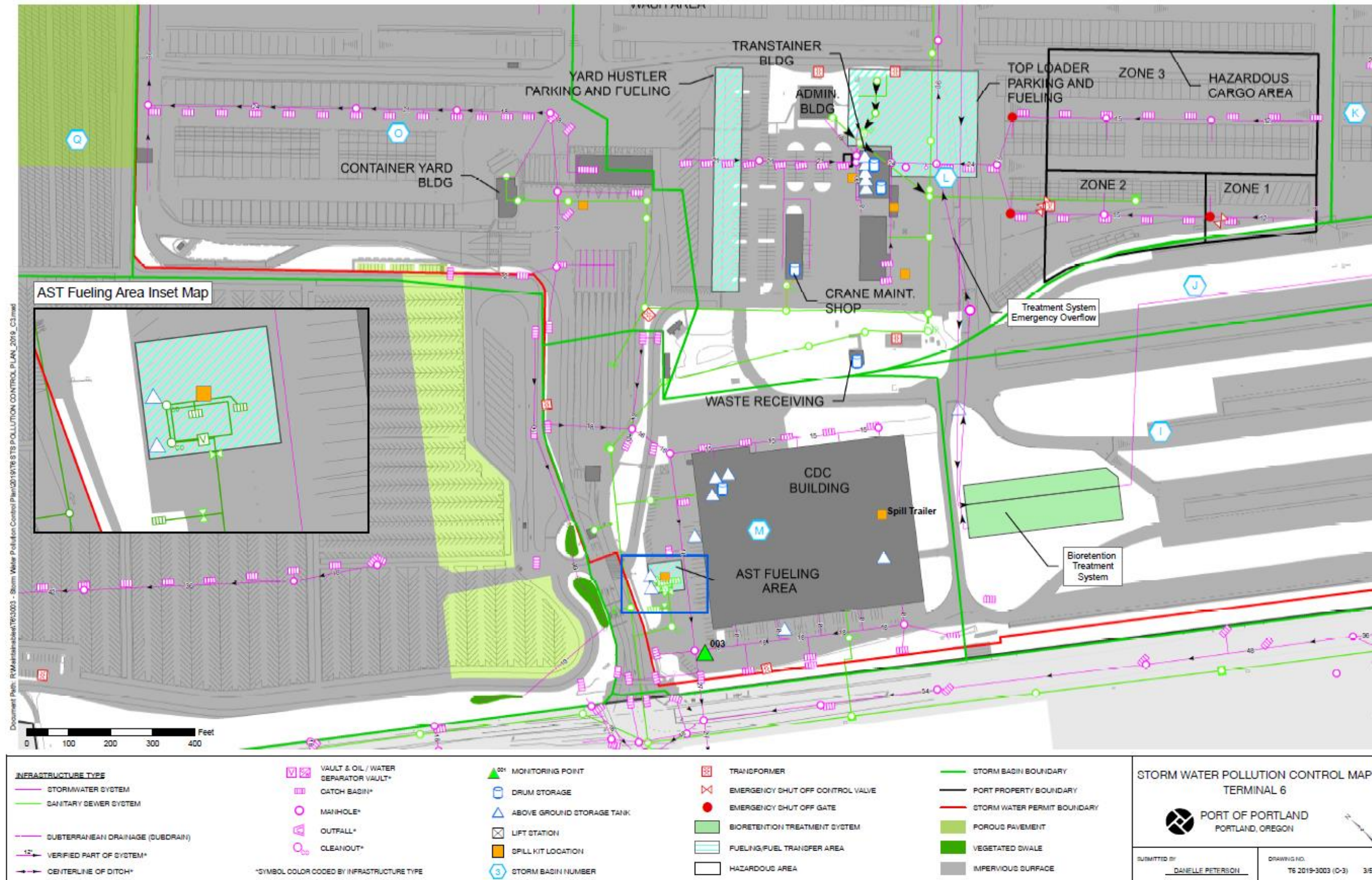


Figure 2 Site Map

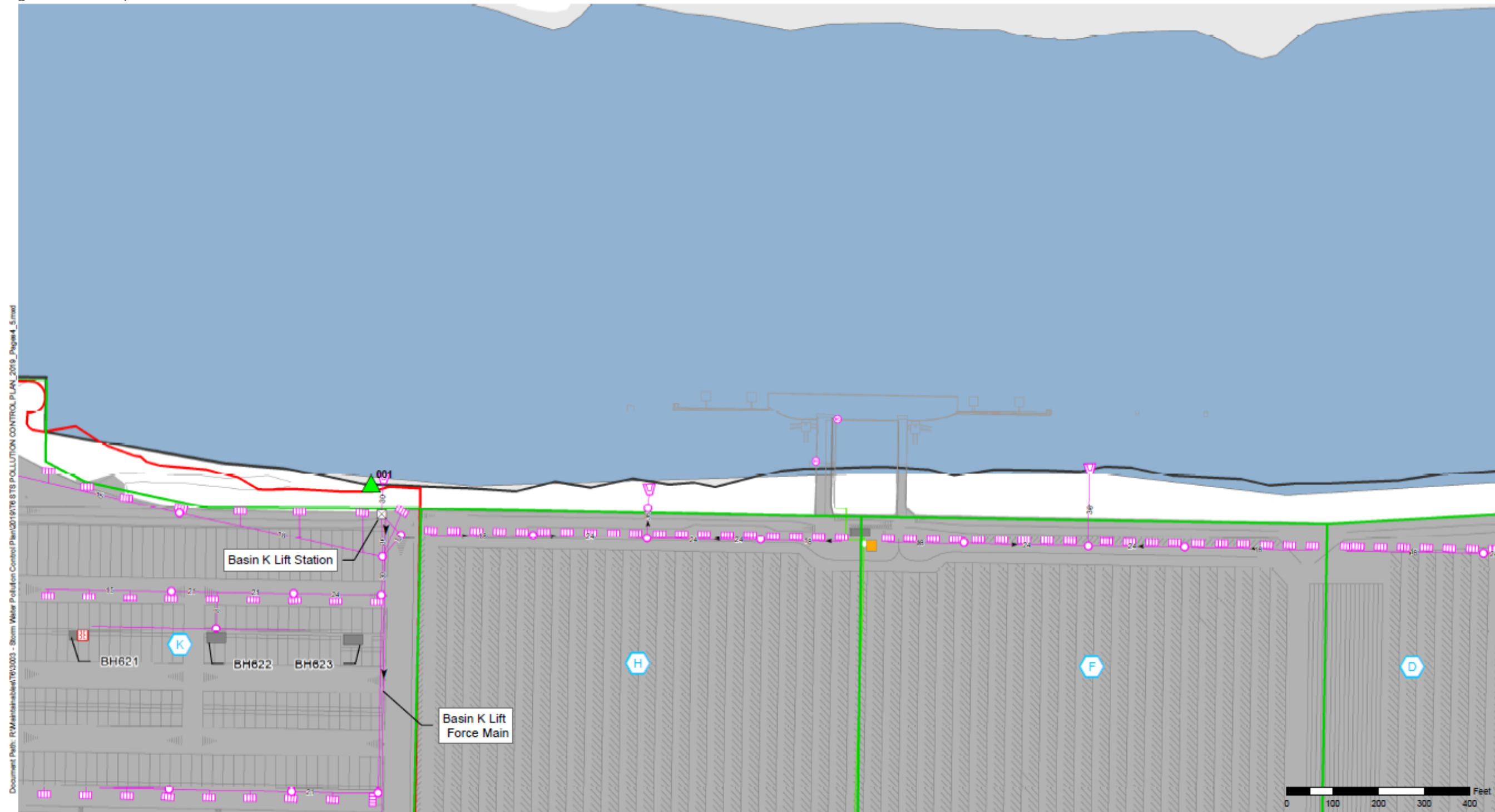


STORM WATER POLLUTION CONTROL MAP  
TERMINAL 6

PORT OF PORTLAND  
PORTLAND, OREGON

SUBMITTED BY: DANIELLE PETERSON  
DRAWING NO.: T6 2019-3003 (O-3) 3/5

Figure 2 Site Map



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INFRASTRUCTURE TYPE		MONITORING POINT		TRANSFORMER		STORM BASIN BOUNDARY	
STORMWATER SYSTEM	VAULT & OIL / WATER SEPARATOR VAULT*	MONITORING POINT	TRANSFORMER	STORM BASIN BOUNDARY	PORT PROPERTY BOUNDARY	STORM WATER PERMIT BOUNDARY	
SANITARY SEWER SYSTEM	CATCH BASIN*	DRUM STORAGE	EMERGENCY SHUT OFF CONTROL VALVE	PORT PROPERTY BOUNDARY	STORM WATER PERMIT BOUNDARY	POROUS PAVEMENT	
SUBTERRANEAN DRAINAGE (SUBDRAIN)	MANHOLE*	ABOVE GROUND STORAGE TANK	EMERGENCY SHUT OFF GATE	BIORETENTION TREATMENT SYSTEM	VEGETATED SWALE	IMPERVIOUS SURFACE	
VERIFIED PART OF SYSTEM*	OUTFALL*	LIFT STATION	FUELING/FUEL TRANSFER AREA				
CENTERLINE OF DITCH*	CLEANOUT*	SPILL KIT LOCATION	HAZARDOUS AREA				
	*SYMBOL COLOR CODED BY INFRASTRUCTURE TYPE	STORM BASIN NUMBER					

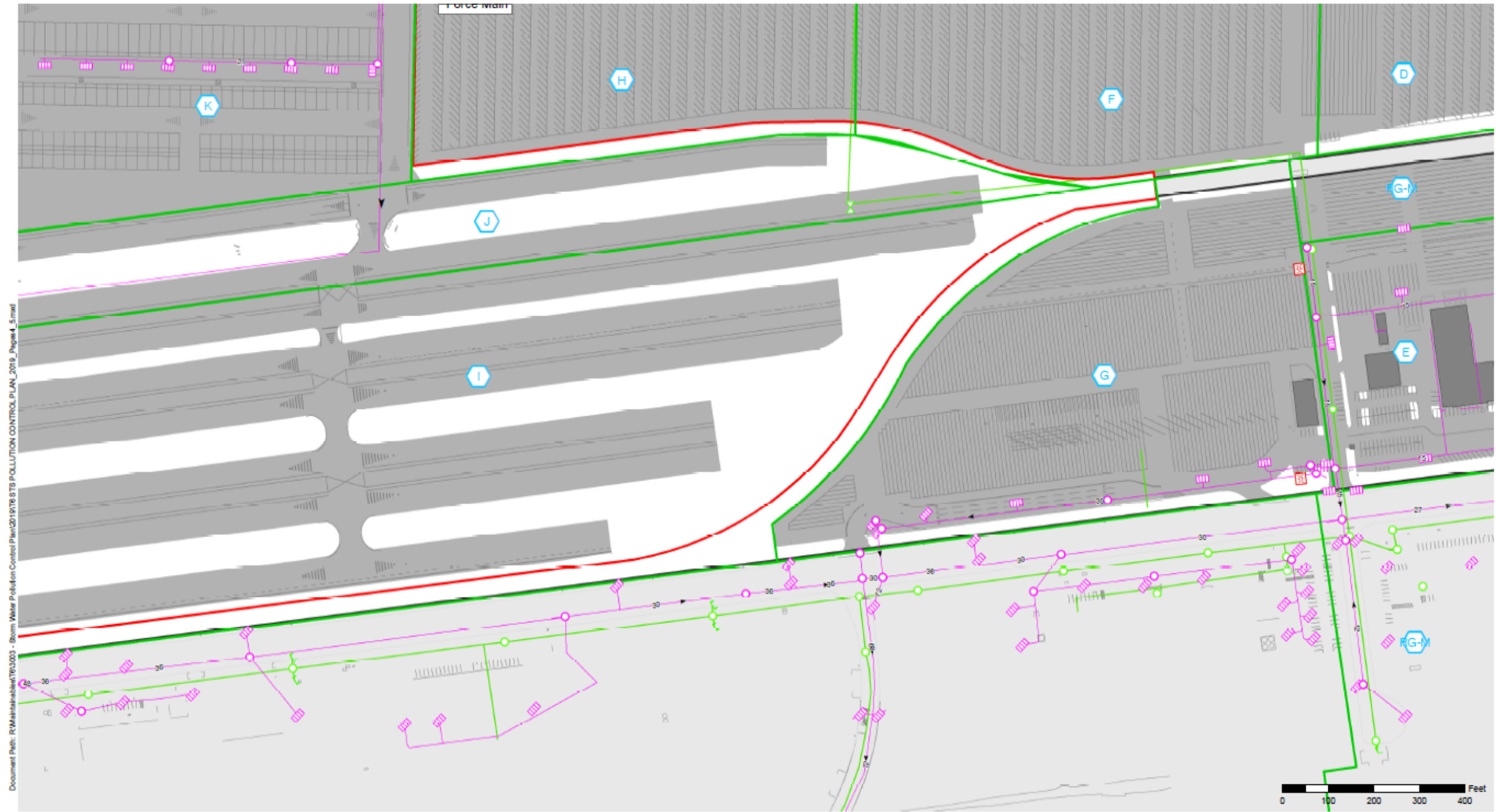
STORM WATER POLLUTION CONTROL MAP  
TERMINAL 6

PORT OF PORTLAND  
PORTLAND, OREGON

SUBMITTED BY: DANIELLE PETERSON

DRAWING NO. T6 2019-3003 (0-4) 4/5

Figure 2 Site Map



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INFRASTRUCTURE TYPE		SYMBOL COLOR CODED BY INFRASTRUCTURE TYPE		OTHER FEATURES		BOUNDARIES AND SURFACES	
	STORMWATER SYSTEM		VAULT & OIL / WATER SEPARATOR VAULT*		MONITORING POINT		STORM BASIN BOUNDARY
	SANITARY SEWER SYSTEM		CATCH BASIN*		DRUM STORAGE		PORT PROPERTY BOUNDARY
	SUBTERRANEAN DRAINAGE (SUBDRAIN)		MANHOLE*		ABOVE GROUND STORAGE TANK		STORM WATER PERMIT BOUNDARY
	VERIFIED PART OF SYSTEM*		OUTFALL*		LIFT STATION		BIORETENTION TREATMENT SYSTEM
	CENTERLINE OF DITCH*		CLEANOUT*		SPILL KIT LOCATION		POROUS PAVEMENT
					STORM BASIN NUMBER		VEGETATED SWALE
					TRANSFORMER		IMPERVIOUS SURFACE
					EMERGENCY SHUT OFF CONTROL VALVE		
					EMERGENCY SHUT OFF GATE		
					BIORETENTION TREATMENT SYSTEM		
					FUELING/FUEL TRANSFER AREA		
					HAZARDOUS AREA		

**STORM WATER POLLUTION CONTROL MAP**  
**TERMINAL 6**

**PORT OF PORTLAND**  
 PORTLAND, OREGON

SUBMITTED BY: DANIELLE PETERSON  
 DRAWING NO.: TS 2019-3003 (C-5) 5/5



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## **2.3 Industrial Activities Conducted On-Site**

The Port of Portland Terminal 6 facility is a marine terminal that maintains equipment used for moving bulk and containerized cargo containers between ships, barges, railcars and trailer trucks. The facility encompasses approximately 196 acres. Typical activities for Terminal 6 involve the interaction of commercial semi-trucks, on-site container transports (yard hustlers), and container lift vehicles (reach stackers), container cranes, container ships, and rail transports. Other equipment used for breakbulk cargoes include mobile cranes, forklifts, and mobile vehicle loading ramps. Additional facilities and activities include vehicle maintenance and fueling, administrative offices, and an electrical shop. Historically most of the site was used for container storage on pavement.

Terminal 6 has the capability to handle a variety of break bulk commodity (e.g. rail, steel plate, steel coil), autos and containerized materials. The amounts and types of materials can vary depending on markets and shipping needs. A list of potential cargoes is discussed in Section 2.2 below. Portions of Terminal 6 may be leased for other operations. If new cargoes or uses of the facility not covered in this current SWPCP occur, this SWPCP will be updated to reflect the new uses.

This SWPCP was written to include industrial activities by non-Port operators and to ensure that non-Port operators at Terminal 6 are responsible for stormwater compliance in portions of the site they control. If industrial activities are planned that are not addressed in this SWPCP appropriate changes will be made to the SWPCP consistent with the timelines identified in the 1200-Z permit or in a future permit renewal application to DEQ.

## **2.4 Significant Materials**

Significant materials will be handled or stored at Terminal 6 North in a manner that minimizes exposure to stormwater. Most of the maintenance and shop activities occur within roofed buildings. Activities that could contribute pollutants to runoff occur in impervious areas related to vehicle access and fueling. A detailed description of these areas and activities is shown in Table 2-3 on the following page. Significant materials from historical activities are not known to exist on site.

Federal regulations (40 CFR Part 112) require that facilities with oil-containing Aboveground Storage Tanks (AST) greater than 55 gallons totaling or exceeding 1,320 gallons, or total Underground Storage Tanks (UST) with capacity exceeding 42,000 gallons, must prepare a Spill Prevention Control and Countermeasure Plan (SPCC). The Port maintains an SPCC plan for Terminal 6. The spill response section of the SPCC plan is included in section 4.

Multiple above ground storage tanks, mobile storage tanks and portable containers containing petroleum products are stored in designated areas throughout Terminal 6. A complete inventory of oil storage and use locations is listed in Table 2-3. Locations of storage areas are also shown in Figure 2.

**Table 2-3 Oil Storage and Locations**

Container No.	Location	Substance Stored	Quantity (gallons)	Material of Construction	Alarm Systems	Secondary Containment/ Diversionary Structure	Containment Size (gallons)
<b>BULK ABOVEGROUND STORAGE CONTAINERS</b>							
T6-AST-1	Interior CDC oil storage room	Motor oil	350	Steel	Gauge	Grated concrete vault	>350
T6-AST-2		Motor oil	182	Steel	Gauge	Grated concrete vault	>350
T6-AST-3		ATF	250	Steel	Gauge	Inside secondary containment	>250
T6-AST-4	Outdoors west of CDC building	Used oil	1,150	Steel	Gauge	Vaulted/Double-walled	>1,150
T6-AST-5	Outdoor CDC fueling area	Diesel fuel	12,000	Steel	Gauge	Double-walled	>12,000
T6-AST-6		Gasoline	4,000	Steel	Gauge	Double-walled	>4,000
T6-AST-7	Adjacent to the Transtainer building in a shed	Hydraulic oil	500	Steel	Gauge	Double-walled	>500
T6-AST-8		Used oil	1,000	Steel	Gauge	Double-walled	>1,000
T6-AST-9		Motor oil	500	Steel	Gauge	Double-walled	>500
T6-AST-10		ATF	280	Steel	Gauge	Double-walled	>280
T6-AST-11		Gear oil	120	Steel	Gauge	Double-walled	>120
T6-AST-12	Interior CDC	Diesel	600	Steel	Gauge	Double-walled	>600
<b>PORTABLE CONTAINERS, TOTES, AND DRUMS (Drums are not equipped with gauges)</b>							
DS-1	Interior CDC oil storage room	Various oils	Up to 15 drums	Steel	None	Inside oil storage room	>55
DS-2	Outside transtainer building (In sheds)	Various oils	Up to 3 drums	Steel	None	On containment pallets within bermed, covered area	>55
DS-3	Transtainer building	Various oils	Up to 15 drums	Steel	None	Inside building	>55
DS-4	Fenced drum storage Area	Empty drums, absorbent materials used to cleanup spills	Up to 50 drums	Polyurethane	None	In bermed, covered area with blind sump	>55
DS-5	Crane Maintenance shop	Various oils	Up to 10 drums	Steel	None	Inside building	>55
<b>MOBILE GENERATORS</b>							
MG-1	SW of CDC	Diesel fuel	1,200	Steel	Gauge	Steel containment	>1,200
MG-2	NE of CDC	Diesel fuel	1,200	Steel	Gauge	Double-walled	>1,200
<b>FUEL TRUCK</b>							
T-1	Fueling Station	Diesel	2,200	Steel	None	Double-walled	>2,200

## 2.5 Potential Pollutants

Outdoor activities include movement and temporary storage of break-bulk, bulk and containerized materials and fueling of container-moving equipment. All industrial activities that are exposed to stormwater at the site are located on impervious paved areas. Terminal 6 facility includes maintenance of equipment used for moving cargo. Maintenance of equipment occurs indoors when it is possible for the equipment to be moved indoors. However, some equipment such as the exterior areas on the container cranes are too large or stationary and it is not possible to perform maintenance indoors.

The exact nature of future business at Terminal 6 is currently unknown. Cargos may arrive on a short-term basis with very short notice of when vessels will arrive. The list of potential cargoes listed in Table 2-4 was developed to be able to have a permit in place that allows for the handling of these materials if and when the business may take place. It should be noted that the list of potential cargoes included in Table 2-4 are *potential* cargoes that *could* be handled at the facility and that only a very few of the cargoes listed will likely be handled at the facility. The cargoes that are most likely to be handled are containers, steel slab, break bulk such as steel, lumber, transformers, and finished autos. Cargo will be handled with the equipment listed in Section 2.3 or moved offsite on railcars.

Chemical from anti-icing and deicing pavement activities have the potential to impact stormwater. When weather conditions warrant, Port maintenance may apply deicer to remove snow and ice. BMPs for managing stormwater runoff from deicing and anti-icing activities are listed in Appendix D.

## 2.6 Sector-Specific Source Identification

The 1200-Z permit includes sector-specific requirements, including identification of industry-sector specific sources. The Port of Portland facility falls under industry sector Q – Water Transportation because its Primary Code is 4491. The following potential pollutant sources related to this sector were assessed:

***Outdoor manufacturing or processing activities:*** No outdoor manufacturing or processing activities are currently conducted or anticipated at Terminal 6. However, if any such activities should occur in the future, this SWPCP will be amended to describe specific pollution prevention measures that will be taken to address specific manufacturing or processing activities.

***Significant dust or particulate generating processes:*** No ship repair or painting activities that could generate dust or particulates are currently allowed or anticipated at Terminal 6. Handling and storage of fine bulk materials have the potential to generate dust. Typically, these materials will be handled in a manner to minimize dust generation will be stored inside warehouse buildings. Specific management plans will be created for each individual cargo handling operations that has the potential to create dust.

Because land transportation and equipment maintenance take place at the Terminal 6 facility, the following Sector P – Land Transportation and Warehousing related potential sources were also evaluated:

**Onsite waste storage or disposal:** all maintenance-related wastes generated at the site are contained within holding tanks with secondary containment. Municipal refuse is held in covered dumpsters. Dunnage (typically wood spacers or straps used to secure cargo) may be held in open dumpsters pending recycling or disposal in accordance with local, state and federal regulations. Liquid wastes generated during equipment maintenance are recycled or disposed of according to state and federal regulations. Solid wastes are disposed of at a permitted solid waste disposal facility. Per Port of Portland policy, no wastes are disposed of onsite.

**Dirt/gravel parking areas for vehicles awaiting maintenance:** Vehicles awaiting maintenance are staged inside the CDC building, adjacent warehouses or next to the maintenance building in the area shown on Figure 2. This area is paved so leaks can be detected.

**Illicit plumbing connections between shop floor drains and the stormwater conveyance system:** The Port of Portland has visually verified that all floor drains including warehouse drains and shop floor drains have been filled with concrete or otherwise plugged such that they do not flow to the storm sewer system.

**Fueling area:** Fueling may take place in three designated fueling areas located in drainage basin M on the west side of the CDC, and in two locations in the southern portion of drainage basin L, as shown on Figure 2. The CDC fueling area, including the fuel nozzle rack, drains through an oil/water separator and then to the City sanitary sewer system. In the event of a spill a valve located downstream of the oil/water separator can be closed, isolating the spill area. Spill kits are located in these areas. The Port of Portland requires staff to be present during vehicle fueling.

**Table 2-4: Significant Materials and Potential Source Descriptions – Columbia River Discharges**

MATERIAL	Constituents	BENCHMARK PARAMETERS								IMPAIRMENT					SECTOR		ADDITIONAL POLLUTANTS			Overall Pollutant Risk
		Mobile Solids	Solubility	pH	TSS	Oil & Grease	T-Zinc	T-Copper	T-Lead	Aldrin	DDE	PCBs	PAHs	T-Arsenic	T-Iron	T-Aluminum	T-Cadmium	T-Chromium	T-Nickel	
<b>LOGS WITH BARK AND DE-BARKED</b>	Solids, tannins, oils	Moderate	Low	x	x	x														Moderate
<b>LUMBER</b>	Tannins, oils	Low	Low	x	x	x														Moderate
<b>BULK ORES:</b>																				
<b>BARITE</b>	Barium sulfate, trace Fe, Hg, Cd, Cu, Pb, Zn, sulfide, phosphate	High	Low		x		x	x	x						x		x			High
<b>MANGANESE</b>	Manganese oxide	High	Low																	High
<b>UREA</b>	Assumes pure synthetic Urea in prill or granules, can break down into ammonia	High	High	7.5-9.5																High
<b>BULK FERTILIZERS:</b>																				
<b>SODA ASH</b>	Sodium carbonate	High	High	x	x															High
<b>POTASH</b>	Potassium carbonate/chloride/sulfate/magnesium sulfate/nitrate	High	High	x	x															High
<b>OTHER DRY BULKS:</b>																				
<b>GRAINS</b>	Carbohydrates, proteins, fiber	High	Low		x															Moderate
<b>WOOD/BIO PELLETS</b>	Solids, tannins, oils	Moderate	Low	x	x	x														Moderate
<b>HAY AND OTHER ANIMAL FEED</b>	Carbohydrates, proteins, fiber	High	Low	x	x															Moderate
<b>COTTON SEED</b>	Carbohydrates, proteins, fiber	High	Low	x	x	x														Moderate
<b>SALT (CHILE)</b>	Sodium chloride, trace Al, Fe, Mg, K, Sr	High	High		x									x						High
<b>FRACKING SAND</b>	Quartz, silica, ceramic, possible resin	High	Low		x															Moderate
<b>SCRAP METAL</b>	Iron, copper, lead, zinc, aluminum		Moderate	x	x	x	x	x	x			x	x		x	x	x	x	x	High
<b>STEEL RAIL</b>	Iron, trace copper (0.4 to 0.6%), Manganese (1.65%)	Low	Low												x					Low
<b>STEEL PLATE</b>	Iron, trace copper (0.4 to 0.6%), Manganese (1.65%)	Low	Low												x					Low
<b>ROLLED STEEL</b>	Iron, trace copper (0.4 to 0.6%), Manganese (1.65%)	Low	Low												x					Low
<b>TRANSFORMERS AND OTHER MECHANICAL EQUIPMENT</b>	Painted steel, oils	Low	Low			x														Low
<b>CONTAINERS</b>	Materials inside painted steel containers	Low	Low																	Low
<b>RELIEF TRAILERS</b>	Materials inside painted steel containers	Low	Low																	Low
<b>BARGE COMPONENTS</b>	Steel, oils	Low	Low			x														Low
<b>MILITARY EQUIPMENT</b>	Steel, oils	Low	Low			x														Low
<b>ROLL-ON/ROLL OFF VEHICLES</b>	Steel, oils	Low	Low			x														Low
<b>SEDIMENT (DEWATERED)</b>	Sand and silt, possible low level contaminants	High	Low		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	High
<b>CONTAINERIZED WASTE</b>	Materials inside painted steel containers	Low	Low																	Low

## 2.7 Sources with a Reasonable Pollution Potential

Rankings of *none*, *low*, *moderate* or *high* potential for pollutants to be present in significant quantities in the stormwater discharge were determined based on the following criteria:

- Presence of materials in significant quantities exposed to stormwater
- The potential of exposure through spills or leaks
- Existing structural controls (e.g., berms, cover) and non-structural controls (e.g., housekeeping, materials management practices)
- Evidence of historical spills (e.g., stains, structural damage to pavement or catch basins)
- Mobility of the materials
- The distance to the stormwater conveyance system (i.e., can the material be contained and cleaned up prior to entering the storm drain system?).

By using the flow chart, the following pollution potential classifications were determined:

*None:* pollutant is not present in significant quantities; or significant quantities of pollutant are not exposed to stormwater, nor do they have the potential for exposure to stormwater through leaks or spills.

*Low:* significant quantities of pollutant are only exposed to stormwater by leaks or spills, and structural controls are **adequate** to prevent contamination of stormwater.

*Moderate:* significant quantities of the materials are exposed to stormwater, and structural controls are **adequate** to prevent contamination of stormwater; or significant quantities of pollutant are only exposed to stormwater through leaks or spills, and structural controls are potentially **ineffective** in preventing contamination of the stormwater.

*High:* significant quantities of the materials may be exposed to stormwater, and structural controls are potentially **inadequate** to prevent contamination of stormwater; this may include areas with evidence of historical spills.

Based on the pollution potential assessment, some of the bulk materials contain potential pollutants that have been determined to have a **reasonable potential** to be present in the stormwater discharge in significant amounts. Only areas with a moderate or high-risk potential were considered as having a reasonable potential of impacting the quality of the stormwater.

## **2.8 Stormwater Monitoring Locations**

DEQ requires the monitoring locations to be located such that samples and measurements are taken prior to the effluent joining other water bodies or waste streams. Samples must be taken at a monitoring point before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility.

The Terminal 6 facility has four drainage basins with outfalls. These basins encompass all potential industrial activities reasonably to occur at the facility. Stormwater samples will be collected at monitoring locations 001 and 002 003 and 004 (Figure 2).

### **Basin K Monitoring Point 001**

The outfall for monitoring point 001 is the northeast corner of basin K and the Berth 606-yard a. If the outfall is inundated, due to high river flows, grab samples will be collected from the manhole immediately upstream of outfall K.

### **Basin L Monitoring Point 002**

This manhole is located in the north-central portion of the facility and receives stormwater from the hazardous cargo area, the Transtainer, Gearlocker, Crane Maintenance, and Administration building areas, a portion of the container yard near Berths 604 and 605 and the parking areas prior to mixing with other runoff. Grab samples will be collected from stormwater flowing within the manhole. Samples collected at this monitoring station represent the runoff from Basin L prior to discharge to the Columbia River.

### **Basin M Monitoring Point 003**

Sample point 003 is designated as a manhole located upstream of the City of Portland's storm sewer and outfall. The manhole is in the parking area for the CDC, just southwest of the building. This monitoring location receives stormwater from the CDC roof, parking lot and maintenance storage areas via catch basins and roof down spouts connected to the piped storm system. Grab samples will be analyzed for the Columbia Slough parameters.

### **Basin O Monitoring Point 004**

The monitoring point is at the outfall located in the northwest corner of the Berth 603 storage yard. This outfall receives stormwater from the Container Yard Gate building, Entrance Canopy, and a portion of the container yard adjacent to Berth 603. In the event that the outfall is inundated, due to high river flows, grab samples will be collected from the manhole immediately upstream of the outfall.

## **2.9 Underground Injection Control Rules and Regulations**

The Oregon Administrative Rules (OAR) 340-044-0050 regulate the discharge of waste, including stormwater discharges, into underground injection control (UIC) systems. The 1200-Z permit requires that all permittees comply with these regulations.

It is the Port's policy that no new UICs be created when there are other means of disposal available (i.e. stormwater system, sanitary system, off-site disposal). If a UIC is the only option, it must be approved in writing by the Port, and it shall be constructed, registered and operated in accordance with the UIC rules and regulations to protect groundwater. There are currently no known UICs at Terminal 6.



## **Section 3: Site Controls**

---

### **3.1 General**

Implementation of site stormwater pollution controls will help reduce the quantity of pollutants in the stormwater runoff. Source controls are usually the most effective mechanisms for decreasing contamination and are typically less expensive than constructing end-of-pipe treatments.

Oregon is an EPA NPDES-authorized state with the authority to write general permits. DEQ has established benchmarks as a means of assessing pollution control effectiveness. Except for federal limits associated with certain industries, benchmarks are not effluent limits. The Port of Portland will follow the intent of the stormwater regulations by implementing appropriate stormwater controls to reduce pollutant concentrations. BMPs and other forms of stormwater controls are expected to be implemented even if the benchmarks are not exceeded.

### **3.2 Stormwater Best Management Practices**

Stormwater management controls are often categorized as source controls that minimize exposure of pollutants to precipitation and runoff, and treatment to remove pollutants from stormwater. Both types of controls help reduce the amount of pollutants in the stormwater discharge.

Source controls help reduce the contact of stormwater with potential pollutants. The overall intent of the NPDES stormwater regulations is to improve the quality of stormwater discharges by eliminating or reducing the exposure of stormwater to potential contaminants. Examples of source controls include good housekeeping, improved material handling techniques, secondary containment, and covering of potential pollutant areas.

End-of-pipe controls can be either structural or non-structural. They are used to remove a pollutant after it has already entered the stormwater. Examples include oil/water separators, stormwater filter vaults, catch basins, and catch basin inserts.

The site controls required under the Schedule A, Technology Based Effluent Limits of the Permit are listed below:

#### **3.2.1 Minimize Exposure**

Minimize exposure of processing, and material storage areas, including loading and unloading, disposal, cleaning, maintenance and fixed fueling areas, to rain, snow, snowmelt and runoff.

- Locate materials and activities indoors –Welding and vehicle maintenance is conducted indoors or if this is not possible due to equipment or vehicle size, these activities will be conducted outside in a designated berm and/or covered area to eliminate stormwater exposure. All areas are swept at the end of the work day.

- Use grading, berm, or curbing - Berms, bunds or curbs provide secondary containment for materials stored in ASTs. The fueling area in drainage basin M is sloped inward to two separate catch basins, which drain to an oil water separator, emergency shut off valve then to the sanitary sewer.
- Store all hazardous substances within berms or other secondary containment devices – The drainage basin L hazardous cargo storage area is divided into three separate drainage zones. Each of these zones has sluice gates with shutoff valves that can be closed for system containment in the event of a leaking container, hazardous material fire, or other situation that could impact stormwater runoff. A designated berm area for potential leaking containers is installed in this area. Each catch basin is labeled with the associated sluice gate. All hazardous substances are stored indoors or within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. Hazardous materials will be stored under cover and in secondary containment.
- Leak prone equipment and activities – Leak prone equipment and activities will be located indoors or in containment and diversion systems. Drip pans or absorbents will be used under or around leaking or leak-prone vehicles and equipment. Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- Perform all cleaning operations indoors, under cover or in a berm area that prevents runoff and run-on and also captures overspray – Wash water in drainage basin L drains to a proper collection system such as a closed-loop system or sanitary sewer and not discharged to the stormwater drainage system unless the wash water is an authorized non-stormwater discharge
- Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment. – Follow the Terminal 6 spill response procedures for all spills and leaks. Spill kits are located in areas were spills are likely to occur.
- When weather conditions warrant, apply pavement deicer to remove snow and in accordance with the BMPs in Appendix D.

### **3.2.2 Oil and Grease**

Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of stormwater discharges, where needed and as described below:

- Except for mobile fueling performed in the designated fueling area, petroleum products are stored and dispensed in the covered maintenance shop. Pressure/steam cleaning is performed over a cleaning pad that drains to an oil/water separator and then to the sanitary sewer. Shop floors are routinely cleaned to prevent drag-out from the shop floor. Mobile Equipment carry oil spill containment materials and all spills are promptly reported and cleaned up.

- A portion of the discharges in drainage basin O flow through an oil water separator adjacent to berth 603 dock office before discharging to the Columbia River.
- In drainage basin M, stormwater in the fuel pad area flows through an oil water separator prior to discharging to the sanitary sewer.

### **3.2.3 Waste Chemicals and Material Disposal:**

Recycle or properly dispose of wastes to eliminate or minimize oil and grease contamination of stormwater discharges. Cover all waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of permanent lids. Non-Port operators are responsible for managing waste and materials generated by their activities.

- Waste chemicals generated at Terminal 6 include used motor oils, hydraulic fluid, solvents, and paints. All hazardous waste chemicals are stored indoors or under cover and recycled or disposed of off-site by a licensed contractor. A variety of wastes, including spent oil absorbent pads, used batteries, used catch basin filters and catch basin cleanout debris, are stored inside the Waste Receiving building.

### **3.2.4 Erosion and Sediment Control:**

Stabilize exposed areas and contain runoff using structural and non-structural controls to minimize erosion of soil at the site and sedimentation. Employ erosion control methods such as vegetating exposed areas, graveling or paving to minimize erosion of soil at the site. Employ sediment control methods such as detention facilities, vegetated filter strips, bioswales, flow velocity dissipation devices or other permanent erosion or sediment controls to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements related to stormwater control.

- Most of the site is paved to reduce erosion. Annual pavement sweeping is conducted at a minimum. Operational sweeping will vary based on the specific activity and cargo being handled.
- Landscaped areas are well vegetated and regularly maintained.
- All Port construction contractors are required to comply with the Port's DEQ-issued NPDES General Construction Stormwater Permit 1200-CA or the 1200-C permit. The Port implements construction specifications for "Required Environmental Practices for Construction" in order to minimize environmental risk at Port facilities. Contractors are required to follow the construction specifications pertaining to the Port's permit conditions. The Port prepares a project-specific erosion control plan and the contractor supplies supplemental information for the plan. The Port's engineering and environmental staff review the plans. In addition, all construction projects also follow the most current edition of the City of Portland's Erosion Control Manual. Tenant construction contractors must also comply with the various

stormwater regulations by obtaining their own 1200-C permits from DEQ and building permits from the City.

- All Port construction inspectors are trained annually on appropriate construction erosion and sediment control measures to assist in the enforcement of mandatory erosion control measures.

### **3.2.5 Debris Control:**

Employ screens, booms, settling ponds, or other methods to eliminate or minimize waste, garbage and floatable debris in stormwater discharges and ensure that this debris is not discharged to receiving waters.

- Employees are required to keep work areas clean and free of debris. The yard area is swept as needed.
- Lot sweeping is conducting during times wind is minimal. Use vacuum recovery lot sweeping equipment.
- Cover dumpsters and picked up on a routine basis.
- Filter fabric inserts are used for debris control and are replaced annually or as needed to ensure debris entering stormwater discharges from the Site are minimized.

### **3.2.6 Dust Generation and Vehicle Tracking:**

Minimize generation of dust and off-site tracking of raw, final or waste materials.

- High traffic areas of the yard are paved and regularly swept.
- Lot sweeping is conducting during times the wind is minimal. Use vacuum recovery lot sweeping equipment.
- Specific bmp will be developed and implemented as applicable to individual cargo handling activities that have the potential to generate dust.

### **3.2.7 Housekeeping:**

Regularly inspect, clean, maintain and repair all industrial equipment and systems, and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution.

Routinely clean all exposed areas that may contribute pollutants to stormwater using such measure as sweeping at regular intervals, litter pick-up, keeping materials orderly and

labeled, and prompt clean-up of spills and leaks, proper maintenance of vehicles and stowing materials in appropriate containers.

Areas that may contribute to pollutants to stormwater will be kept clean and free of debris. Proper routine maintenance is performed on transportation vehicles, thereby minimizing the potential leakage of automotive components and exposure of stormwater to pollutants. The following measures will be implemented:

- Incidental spills at the site will be cleaned up quickly.
- The asphalt parking area shall be cleaned on a routine basis to prevent debris build-up.
- Port staff will perform monthly inspections of outdoor areas at Terminal 6 including: Maintenance Facility and fuel island, washing areas and fuel storage areas, dock areas, and equipment storage areas. These areas are continually being monitored by Port staff, and every effort is made to keep all Port facilities clean.
- When conducting maintenance of buildings, structures or fixed cranes, workers must eliminate the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Contain 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.
- 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. Use secondary containment and enclosure for materials stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility.

### **3.2.8 Vehicle and Equipment Maintenance**

Prevent contaminants from vehicle and equipment maintenance from entering the stormwater drainage system. The following measures will be implemented:

- No wash downs are allowed to clean the work areas. Rags or spill pads will be used for cleaning small spills and a damp mop will be used for general cleaning. Sorbent materials including kitty litter, sawdust, spill pads, and spill booms may be used for containing large spills. Disposal of clean up materials will be conducted appropriately.
- Drip pans will be placed underneath vehicles and equipment when performing maintenance such as removing parts, unscrewing filters, or unclipping hoses. Transfer of used fluids to the proper waste or recycling drums will be conducted

promptly. Open containers, including full drip pans, will not be left lying around on the site.

- Vehicles driven to the site for repair will be examined for leaks. Drip pans will be placed under the vehicles to collect fluids for recycling or proper disposal.
- All engine and transmission fluids will be drained and collected from damaged equipment or wrecked vehicles brought on the site. If the equipment or vehicles were drained prior to arrival at the site, drip pans will be placed under them immediately to contain leakage since oils and other fluids may drip for several days. All fluids will be disposed or recycled appropriately.
- All batteries will be stored under cover in a designated area.
- Used materials such as degreasers, used oil, oil filters, antifreeze, cleaning solutions, automotive batteries, used rags, and hydraulic fluid will be stored indoors or undercover in secondary containment. These types of materials will be regularly recycled off-site by an approved vendor.

### **3.2.9 Break-Bulk and Bulk Source Control BMPs:**

The contractor/operator will implement BMPs identified in this SWPCP during all work activities at Terminal 6 involving break-bulk or bulk products. Storm drains potentially impacted by the work will be protected, the area will be regularly cleaned, and waste materials disposed of properly. Catch basin inserts (filter media) will be deployed at any high-risk location within break-bulk or bulk storage areas. Warehouses and surrounding terminal areas will be thoroughly cleaned as soon as possible following completion of break-bulk or bulk products activities. Product dust will be swept up and disposed of safely, in accordance with applicable laws and BMPs. Routine visual inspections of catch basins by both the contractor and Port staff will be conducted and documented. Equipment will be maintained to control dust and spillage and the product will be protected from the elements (rain, wind, snow, etc.) where practical. The non-Port operator should also develop a plan that addresses additional BMPs to be implemented if the bulk activity is conducted during wet weather if the routine BMPs are inadequate to prevent pollutant discharges.

### **3.2.10 Spill Prevention and Response:**

Minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans that include methods for spill prevention and clean-up and notification procedures. Non-Port operators are responsible for maintaining their own spill response plans and procedures. Coordination between Port and non-Port operators are shown in Figure 3.

- The Port of Portland has a Spill Prevention, Control, and Countermeasures (SPCC) plan for the facility which is provided as an adjunct to this plan. The SPCC plan includes regular inspections of the double-wall fuel tank, transformers, hydraulic systems, and oil/fluids holding tanks. Spill containment and cleanup materials are kept near the potential sources. There are seven spill kits located throughout the site, see Figure 2 or the Spill Response Plan in section 4 for each location. Additional spill response equipment and materials will be brought on site by the stevedoring

companies responsible for cargo handling and are dependent upon the materials being transported.

- Spill response procedures and contact information are included in section 4.
- Containers are labeled (e.g., “Used Oil”, “Spent Solvents”, etc.) to encourage proper handling and facilitate rapid response if spills or leaks occur.
- Monthly visual observations of chemical storage and transfer areas check for the presence of minor leaks or spills and overall operational effectiveness as well as structural integrity.

### **3.2.11 Preventative Maintenance:**

Regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution. The preventative maintenance schedule for site controls is listed in Table 3-1.

- Monthly preventative maintenance inspections of the stormwater system, secondary containment, chemical transfer and storage areas and spill response materials should be conducted by qualified representatives of the Port and reviewed by site management. Inspection forms will be kept by Environmental Operations at the Port’s headquarters
- Catch basins – There are approximately 250 catch basins at Terminal 6; therefore, the condition of the catch basins in high risk industrial areas will be checked during monthly inspections. These inspections will include checking for the condition of grouting around the catch basin, misaligned covers, debris stuck in the cover, or any debris or other materials that may be covering the catch basin. Debris and other materials that may be blocking the catch basins will be cleared away before the next rainfall. All repairs and clearing of debris will be documented. Maintenance requests will be made to resolve unusual damage or problems.

Catch basins are scheduled to be cleaned annually and as requested. The structural condition of the catch basin is recorded, and any needed repairs are conducted.

Materials removed from catch basins are disposed of appropriately. Catch basin cleaning records and sample analysis results are recorded and kept on file by Environmental Operations in the Port’s headquarters.

- Catch basin filters - The filters in the catch basins are inspected for oil saturation, correct installation, and absorbent material integrity and replaced as needed or annually.
- Oil water separators - The condition of the oil/water separator system and all its components are inspected monthly. If separators are not functioning efficiently, then maintenance (i.e., cleaning, pump out, etc.) is performed. Oil/water separator

maintenance will be documented and kept on file Environmental Operations at the Port's headquarters.

- Storm filter vaults – The drainage basin L stormwater vault is inspected monthly. Cartridges are replaced annually or as needed.
- Outside Storage Areas – Secondary containment areas, chemical transfer and storage areas, and spill response materials are inspected monthly. These inspections consist of inspecting the water within these areas for grease sheen or for any residue in the water and must occur while it is raining. In addition, daily (prior to use) inspections of equipment (e.g., forklifts, transportation equipment, etc.) are completed.

**Table 3-1: Preventative Maintenance Schedule for Site Controls**

Site Control	Locations	Cleaning Frequency	Visual Inspection
Oil-water separators	Drainage basins L, M and O	Annual	Monthly
Stormwater filter vault	Drainage basin L	Annual if needed	Monthly
Catch Basin filters	Throughout	Annual	Monthly
Sweeping	Pavements throughout	Annual and as needed depending on operations	Monthly
Catch Basins	Throughout	Annual or as needed	Monthly in high risk areas
Infiltration System	Basins K and L	See O&M in Appendix E	Monthly

### 3.2.12 Employee Education:

The Port of Portland staff members undergo annual stormwater pollution prevention and spill control training. Training is typically performed in the fall or winter. This training is also provided to new employees. Non-Port operators are required to train their staff on best management practices listed in this SWPCP and spill response specific to their operations annually and within 30 days of hire.

### 3.2.13 Non-Stormwater Discharges:

Under the Port's MS4 permit (see section XII MS4 Permit Activities) the Port is required to have an illicit detection and elimination program for all non-stormwater discharges not authorized by one of the Port's NPDES permits. The Port will eliminate any non-stormwater discharges not authorized if detected during routine inspections or upon discovering evidence of a discharge. Employees are trained not to discharge any non-stormwater to the storm sewer system and report any non-stormwater discharges they



observe. Illicit detection and elimination procedures are included in Appendix C.

Any discharges not authorized by the Permit are investigated and eliminated. Condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit include a list of authorized non-stormwater discharges. During monthly inspections, signs of non-stormwater discharges in the stormwater conveyance and collection systems are documented and procedures in Appendix C are followed.

### **3.2.14 Schedule E Industry sector specific requirements include:**

#### **3.2.14.1 E.Q.1.1 Additional Good Housekeeping Measures:**

- **E.Q.1.1.1 Pressure Washing Area**  
Pressure washing is performed on a wash pad that collects and contains the discharges from the pressures washing area so that they are not co-mingled with stormwater discharges authorized by this permit. If warehouse floors or other storage areas are pressure washed, the wash water is captured using vacuum trucks.
- **E.Q.1.1.2 Blasting and Painting Area**  
There is no ship blasting or painting activities performed at the site. Any painting of small equipment is done inside of the Gearlocker maintenance building.
- **E.Q.1.1.3 Material Storage Areas**
  - All containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) are plainly labeled and stored in a protected, secure location away from drains (inside the Gearlocker except for the exterior Except for the double-walled diesel fuel tank). This practice minimizes the contamination of precipitation or surface runoff from the storage areas. Materials stored indoors include oils, diesel fuel, lubricants, parts cleaners, and antifreeze/coolants. No abrasive blasting is performed at the facility. The Port has environmental policies, including requirements in lease agreements encourages the limitation of potentially hazardous materials onsite.
- **E.Q.1.1.4 Engine Maintenance and Repair Areas**
  - All vehicle maintenance is conducted indoors to minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair.
- **E.Q.1.1.5 Material Handling Areas**  
The Port uses covered warehouses to temporarily store and handle most bulk materials. The maintenance shop is within a building and thus minimizes the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing). There is no onsite disposal of process wastewater streams from vessels. Because of the size of the material handling equipment, it is not possible to cover the fueling area adjacent to the ASTs. However, fueling from the ASTs takes place on a containment pad that has spill and overflow protection. The fueling area drains flow through an oil water separator and connect to the sanitary sewer. Emergency closure valves

are located on the sanitary lines one below the oil water separator and the other below the sanitary catch basin south of the fueling pad. Any mixing of paints and solvents is performed inside the CDC in a designated area.

### **3.2.14.2 E.Q.1.2 Employee Training**

The Port of Portland employee training addresses the following activities: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management. Spill and stormwater training for MFM staff is conducted annually. Any new employee who conducts duties related to the implementation of the SWPCP will be trained within 30 calendar days of being hired. Stormwater and spill training typically consist of:

- Introduction to SWPCP and Permit
- Regulatory requirements
- Stormwater protection and good housekeeping BMPs
- Spill response goals
- Responsibilities for spills
- Spill kits and
- Spill notification requirements.

Stormwater training. Attendance records are retained by the Environmental Operations staff at the Port of Portland Administrative Office and in the Port's online Learning Management System.

### **E.Q.1.3 Preventative Maintenance**

As part of the Port of Portland Preventative maintenance programs, staff perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and catch basins to ensure that 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.

Site controls will be selected for implementation based upon their effectiveness and cost. Where possible, source controls will be used. End-of-pipe controls may be used in situations where stormwater is required to be treated. Selection of controls is discussed in the following section.

### 3.2.15 Stormwater Best Management Practices Summary

Stormwater management controls that are presently in use at the site are listed in Table 3-2 and shown on Figure 2. Most maintenance activities are done inside without exposure to stormwater.

**Table 3-2: Stormwater Best Management Practices Summary**

Drainage Basin	Potential Sources <sup>1</sup>	Potential Pollutants	Site Specific BMPs
Basin K	<ul style="list-style-type: none"> <li>• Vehicle movement</li> </ul>	<ul style="list-style-type: none"> <li>• Debris</li> <li>• Metals</li> <li>• Petroleum hydrocarbons</li> <li>• Sediments</li> </ul>	<ul style="list-style-type: none"> <li>• Annual or as needed scheduled pavement sweeping</li> <li>• Clean out catch basins and deployment of sedimentation filters in all catch basins twice/year</li> <li>• Routine monthly visual observation of catch basins and paved areas</li> <li>• Infiltration system</li> </ul>
Basin L	<ul style="list-style-type: none"> <li>• Equipment storage, loading, fueling, cleaning and equipment maintenance</li> <li>• Employee vehicle parking</li> <li>• Waste and hazardous waste storage</li> <li>• Street sweeping decant water storage</li> </ul>	<ul style="list-style-type: none"> <li>• Debris</li> <li>• Metals</li> <li>• Petroleum hydrocarbons (fuels, lubes and waste oils)</li> <li>• Solvents</li> <li>• Sediments</li> </ul>	<ul style="list-style-type: none"> <li>• Annual or as needed pavement sweeping</li> <li>• Stormwater vault will be cleaned out annually and cartridges will be replaced every 2 -3 years.</li> <li>• Oil-water separator and sluice gates at steam cleaning/washing area (which drains to sanitary). Oil-water separator will be cleaned out on an annual basis.</li> <li>• Deployment of filters in all catch basins.</li> <li>• Routine monthly visual observation of catch basins and paved areas</li> <li>• Clean out catch basins and deployment of sedimentation filters in all catch basins twice/year</li> <li>• Monthly inspection of spill kits</li> <li>• Infiltration system</li> </ul>
Basin M	<ul style="list-style-type: none"> <li>• Container loading storage</li> <li>• Equipment storage, loading, fueling &amp; maintenance</li> <li>• Employee vehicle parking</li> <li>• Waste storage</li> </ul>	<ul style="list-style-type: none"> <li>• Debris</li> <li>• Metals</li> <li>• Petroleum hydrocarbons (fuels, lubes, waste oils)</li> <li>• Solvents</li> <li>• Sediments</li> </ul>	<ul style="list-style-type: none"> <li>• Annual or as needed pavement sweeping</li> <li>• Oil-water separator and sluice gates at fueling center</li> <li>• Deployment of filters in all catch basins</li> <li>• Routine visual observation of catch basins, oil water separator and paved areas</li> <li>• Spill kits</li> </ul>
Basin O	<ul style="list-style-type: none"> <li>• Equipment maintenance, mobile fueling of vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Debris</li> <li>• Metals</li> <li>• Petroleum hydrocarbons</li> <li>• Sediments</li> </ul>	<ul style="list-style-type: none"> <li>• Annual or as needed pavement sweeping</li> <li>• Clean out catch basins and deployment of sedimentation filters in all catch basins twice/year</li> <li>• Deployment of filters in all basins.</li> <li>• Designated mobile fueling area, routine monthly visual observation of catch basins, oil water separator, and paved areas</li> <li>• Monthly inspection of spill kits</li> </ul>

## Section 4: Procedures and Schedules

### 4.1 Spill Prevention and Response Procedures

The following is a summary of spill response procedures. Non-Port operators are required to develop and implement spill prevention and response procedures specific to their operations. The process for coordination between non-Port operators, and Port employees is shown in Figure 3.

#### PORT OF PORTLAND TERMINAL 6 FACILITY SPILL RESPONSE PLAN

PLEASE REFER TO THE FOLLOWING PROCEDURES WHEN HANDLING A SPILL INCIDENT.

\*\*\*\*\* **THINK C-C-C** \*\*\*\*\* **CONTROL-CONTAIN-CALL**\*\*\*\*\*

- #1 If it is safe to do so CONTROL the source of the spill. STOP the flow.
- #2 If it is safe to do so CONTAIN the spill to the smallest possible area.
- #3 CALL your supervisor for further instructions.

#### 4.1.1 Emergency Contacts

##### SPILL RESPONSE/EMERGENCY CONTACTS PORT OF PORTLAND TERMINAL 6 FACILITY

The following are the phone numbers of supervisors to contact in the event of a spill:

**Regardless of the time of the day.**

EMERGENCY NOTIFICATION PHONE LIST		
PRIORITIZED CONTACT LIST	RESPONSIBLE ROLE	PHONE NUMBER
<b>PORT CONTACTS</b>		
Marine Security 24-hour Contact Number	Incident Notification to Appropriate Parties	(503) 240-2230
On Duty Environmental Contact Number:	Environmental Incident Command and Control	(503) 460-4000
Marine Security	Assist with Incident Management	(503) 240-2235
<b>EMERGENCY RESPONSE CONTRACTORS</b>		
Clean Harbors Environmental Services	Provide Spill Response and Cleanup Resources	(800) 645-8265
NRC Environmental Emergency Spill Response	Provide Spill Response and Cleanup Resources	(800) 899-4672
Terra Hydr, Inc.	Provide Spill Response and Cleanup Resources	(503) 625-4000

**IF A SPILL REACHES STATE'S WATER OR HAS THE POTENTIAL TO REACH THE STATE'S WATER, OR IF IN EXCESS OF 42 GALLONS, YOU MUST CALL:  
(Spill reporting must be made as soon as possible after initial spill response and control)**

**GOVERNMENT AGENCIES (Record name of person called and time of call)**

Fire/Police – Portland HAZMAT Team Time:_____ Name:_____	Assist in spill clean-up and fire control	911 and/or (503) 823-3946
National Response Center (NRC) Time:_____ Name:_____	Incident Reporting: If spill exceed CERCLA Federal Response Quantity	(800) 424-8802
Oregon Emergency Response System (OERS) Time:_____ Name:_____	Incident Reporting Provide Spill Response Assistance	(800) 452-0311
Oregon Department of Environmental Quality Time:_____ Name:_____	Incident Reporting Provide Spill Response Assistance	(800) 542-4011
U.S. Coast Guard Time:_____ Name:_____	Incident Reporting	(503) 240-9370
EPA Office Time:_____ Name:_____	Incident Reporting	(503) 326-2715

**In addition, record the name of the control officer, time, and details of the conversation on the Spill Response Notification Form in the SPCC plan.**

**4.1.2 Notification Procedure**

In the event of a spill incident, facility personnel on-duty will take immediate action to notify the Port personnel identified on the list of emergency telephone numbers on the Emergency Contact List above. The designated person (or coordinator) accountable for spill prevention is responsible and required by federal and state laws to notify the applicable federal, state, and local agencies provided on the list.

**4.1.3 Spill Contingency Plan**

In the event of a spill incident, facility personnel will follow the procedures outlined below:

- If safe CONTROL THE SOURCE OF THE SPILL
  - Stop flow of product (secure valves and pumps)
  - Shut off ignition sources, if applicable.
- If safe CONTAIN THE SPILL TO THE SMALLEST POSSIBLE AREA
- CALL YOUR SUPERVISOR FOR FURTHER INSTRUCTIONS
- REPORT THE SPILL TO PROPER SPILL REPORTING AGENCIES AS REQUIRED.

**4.1.4 Spill Control Procedures**

A spill incident could occur at the facility from the following situations:

- Hydraulic reservoir failure
- Transformer failure

- Spill during loading/offloading operations
- Release from stored materials
- Spill during fueling operations.
- Spilled materials inside of a transmodal shipping container.

Should oil or other material spill incident occur, facility personnel will immediately implement the following spill control measures to prevent a spill from entering navigable waters:

- If able to safely address the spill, ensure that the spill is contained (see map of spill kits on Figure 2)
- Cover catch basins and use pads to absorb spilled material
- Pump remaining oil into drums or other appropriate containers away from surface water or storm drains.

#### **4.1.5 Countermeasure Procedures**

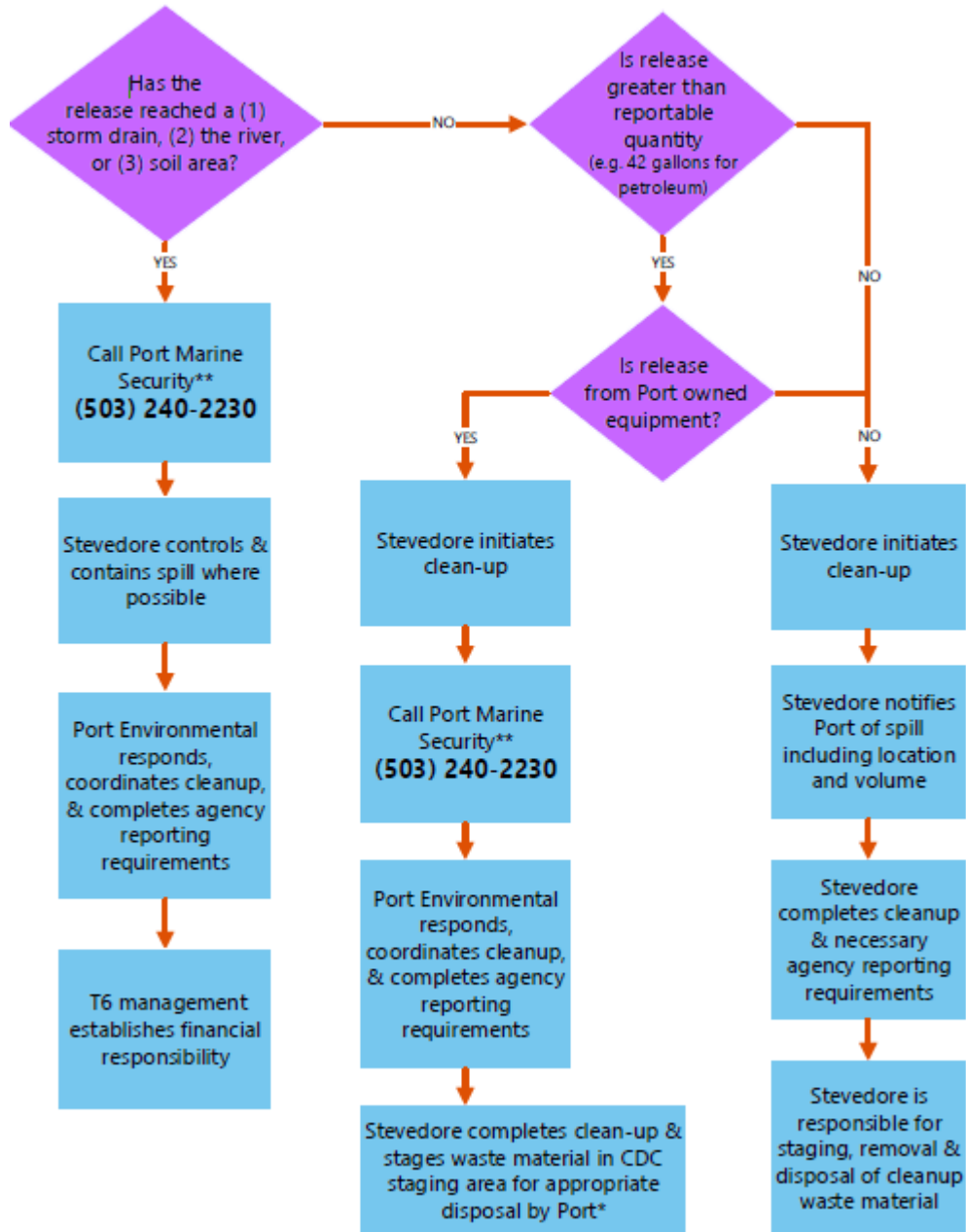
Once the spill control procedures outlined above have been implemented, facility personnel will initiate countermeasure activities to contain, cleanup, and mitigate the effects of a spill that could impact navigable waters. Incident-specific considerations and precautions must also be implemented during each spill incident to adequately protect human health and the environment.

The facility's countermeasure procedures are outlined below.

- **Containment.** Containment activities will be initiated as soon as safely possible to prevent spreading of the spilled material. Containment techniques include, but are not limited to:
  - Trenching and diking
  - Filter fences
  - Booms
  - Bermed, designated containment area for leaking transmodal containers.
- **Removal.** Once the spill is contained, the absorbent material will be removed. Removal techniques include, but are not limited to:
  - Pumps
  - Sorbents (pads, pillows, or booms)
  - Skimmers
  - Vacuum trucks.
- **Disposal.** After the spill is contained, the site will be cleaned up. This includes recycling any recovered oil, disposing of abatement materials used to contain and/or remove the spill, and excavating oil-contaminated soil following all applicable laws and regulation. Disposal techniques include, but are not limited to:
  - Recycling
  - Disposal at an appropriate facility

Figure 3 Non-Port Spill Response Coordination

## T6 Non-Port Operator Spill Procedures



\*Port will dispose of waste material. Financial responsibility will be determined by Port Terminal Manager  
 \*\*Marine Security calls Port Environmental

### 4.1.6 Emergency Response Equipment Location

The following table identifies the type and location of the emergency response equipment available at the facility (Figure 2).

Table 4.1: Emergency Response Equipment Location

Identification	Location
Spill Kit #1	Fueling island west side of the CDC
Spill Kit #2	Fuel truck
Spill Kit #3	Transtainer - north
Spill Kit #4	Transtainer - south
Spill Kit #5	Mobile generator
Spill Kit #6	Adjacent to the berth 605 dock office building 7101
Spill Kit #7	Adjacent to the berth 603 dock office building 8101
Hazardous Cargo Storage Area	Drainage basin L, east of the admin and maintenance buildings, Figure 2 Site Map, sheet C-3

Additional spill response equipment such as pumps, booms, and additional absorbents are available on a 24-hour basis from the emergency response contractors listed on the Emergency Notification Phone List.

### 4.1.7 Potential Spill Locations

Table 4.2 lists the areas where potential spills of significant materials can impact stormwater runoff. These areas are shown on Figure 2.



**Table 4.2: Potential Spill Locations**

Location of Potential Spills	Potential Pollutants (common name)	Comments
CDC Oil Storage Room	Motor and hydraulic oils	Four steel tanks rest on a concrete vault or other secondary containment. The concrete floor is sloped toward the northwest wall of the building, which provides adequate secondary containment for drums stored in the room.
CDC Fueling Area	Diesel and Unleaded Gasoline Fuels	Fueling done on pad with oil/water separator and emergency shut off valve that drains to sanitary sewer system. The tanks are double walled.
Used Oil Tank	Used Oil	Product spilled on the pavement during transfer or released from secondary containment would likely be captured behind the concrete barriers that protect the tank.
Transtainer Building	Motor oil, hydraulic oil, and used oil.	Product is stored in double-walled tanks, or in drums stored on containment pallets or spill control pallets inside the building.
Transformers	Transformer Oil	The oil is sealed within each transformer and is not drained or added to the transformer on a routine basis.
Fuel Truck	Diesel Fuel	The fuel truck tank is double-walled and is parked on the CDC Fueling Area.
Gensets	Diesel Fuel	A spill response kit sized to capture 120 gallons is maintained in the immediate vicinity of the gensets.
Mobile Generator	Diesel Fuel	A spill trailer stocked with adequate secondary containment equipment for this tank is located just inside the nearby CDC building.
Fenced Drum Storage	Spill Cleanup Materials	A significant spill is unlikely; containers generally contain oil-contaminated absorbent material.
Product in Transmodal Containers	Miscellaneous products	Transmodal containers containing various products.

### **4.1.8 Spill Cleanup Training**

Appropriate Port personnel are trained in incidental spill cleanup procedures and how to use available Port cleanup equipment including absorbent mats, scoop shovels, brooms, and a highly absorbent sweeping compound. Port spill kits include 55-gallon drums to be used for receiving spilled materials. Personal protective equipment (respirators, safety goggles, boots, and gloves), first aid, and biohazard kits are maintained in the Maintenance Tool Room. Fire extinguishers and ventilation equipment are also available at the facility. Non-Port operators are responsible for training their staff and contractors on their spill plan and for providing spill cleanup equipment appropriate for their industrial activities at Terminal 6.

## **4.2 Monthly Inspections**

Inspections will be conducted monthly at the locations identified in Section 4.2.2 and on Figure 2. In addition, the stormwater control structures will be inspected. The results of the inspections will be documented. Upon completion of the inspection, cleaning and repair activities should be conducted and documented as described in Section 4.4.

The Port's Environmental Operations will conduct monthly inspections of source areas and stormwater controls within the permitted areas of Terminal 6. The inspections will be documented on the SWPCP Monthly Inspection Form. Inspection forms will be kept on file in the Port of Portland Administration Office.

Non-Port operators are responsible for conducting monthly inspections of their leased areas and areas within their control in compliance with Schedule B of the 1200-Z permit. Inspections of source areas and site controls will be documented, kept onsite for at least three years and made available to the Port, DEQ or local municipality upon request.

Port Environmental Operations and/or Marine Facilities Maintenance staff will conduct inspections of catch basins, inlets and manholes within the non-leased 1200-Z permitted areas. Terminal 6 has approximately 250 catch basins, inlets or manholes within the 1200-Z permitted area. Many of these are located in areas that have very low probability for impacts to stormwater. The catch basins, manholes and inlets within the high-risk area (Materials Storage Area) will be inspected monthly. The inspections will be documented on the SWPCP Monthly Inspection Form. Inspection forms will be kept on file in the Port Administration Office.

Regular inspections are also conducted in accordance with the Spill Prevention, Control and Countermeasure Plan (SPCC) plan and as needed. If any drips or leaks are identified in the area, the Terminal 6 SPCC Reporting Procedure is implemented and the appropriate personnel at Terminal 6 or the appropriate regulatory agencies are notified in accordance with the SPCC Reporting Procedure. The Terminal 6 Spill Response Procedure is described in Section 4.18 and a full copy is available on request.

### **4.2.1 Inspection Areas**

General inspection areas will include:

- Catch basins
- Roofs and covers (for potential leaks)
- Secondary containment areas
- All storage tanks
- Material handling and storage areas
- Waste storage, handling, and process areas
- All areas of potential spills (for possible contamination).

Industry-specific inspection areas include the following:

- Pressure washing area
- Any blasting, sanding, and painting areas
- Material storage areas
- Engine maintenance and repair areas, material handling areas
- General yard area

### **4.3 Cleaning and Repair Program**

Cleaning, maintenance, and repair of all materials handling and storage areas and stormwater control measures, structures, catch basins and treatment facilities will be performed in such a manner as to prevent the discharge of pollution. Catch basins will be cleaned annually, at a minimum, by the Port's MFM Department. For cargo shipments which have an abnormally high amount of particulate (dusts or debris), the stevedoring company managing the shipment will conduct a post-transfer inspection of the catch basins and ensure that filters are replaced and catch basins are cleaned as necessary. The structural condition of the catch basin will be observed, and any needed repairs are conducted. Materials removed from catch basins will be disposed of appropriately. Catch basin sediment will be removed as needed by the MFM or a Port contractor. Catch basin cleaning records and water quality laboratory results will be kept on file in the Port of Portland Administration Office.

The schedule for cleaning and repairing stormwater management control structures will be based primarily on the results of the monthly inspections. The following cleaning and repair activities will be conducted:

- Repair and cleaning of catch basins
- Regular replacement of catch basin filters
- Maintenance of all equipment and tanks where spills or leaks are possible
- Maintenance of all container-moving equipment and other vehicles that are used or parked in the facility to help prevent leaks.

As an additional component of this program, proper traditional "housekeeping" practices will be performed by maintenance staff to keep the facility in a clean and orderly condition. These practices include:

- Maintenance of clean, dry floor, and ground surfaces
- Periodic cleanup of debris and recyclable material
- Proper labeling and identification of chemical substances present in the workplace, and maintenance of Safety Data Sheets (SDS) for each substance (Right-to-Know program)
- Facility-wide sweeping of impervious surfaces annually and on an as-needed basis depending on the frequency of facility operations.
- Proper material container storage practices (to prevent stormwater exposure or damage)
- Proper disposal of old equipment and waste products

#### **4.4 Employee Education Schedule**

The Employee Awareness Program is designed to familiarize all employees with the intent and components of the SWPCP. Training will be provided for all existing employees on an annual basis, and within 30 days of hire for all new employees when they begin work at the Port of Portland Terminal 6 facility.

For all personnel, topics in the training session may include:

- Importance of preventing stormwater pollution
- Contents of the SWPCP
- Spill prevention and internal reporting procedures
- Materials handling and storage procedures
- Proper painting procedures

Sector Q (Water Transportation)-specific training topics will include

- Used oil management
- Spent solvent management
- Disposal of spent abrasives
- Disposal of vessel wastewaters (if occurs)
- Spill prevention and control
- Fueling procedures
- General good housekeeping practices
- Painting and blasting procedures (if used)
- Used battery management.

Selected maintenance personnel will be trained in Preventative maintenance procedures and inspection procedures.

## **4.5 Record Keeping and Internal Reporting Procedures**

The Port of Portland is required to demonstrate the implementation of various components of the SWPCP. Records of the following events or activities will be maintained:

- Incidents of spills or leaks,
- Surface water discharges,
- Sampling/monitoring program (see Monitoring Plan) and
- Inspection and maintenance records.
- Training records

Incidents of spills or leaks may require local, state, or federal agency notification. See the SPCC for the notification details. All records will be dated and signed by the person recording the events or activities. Records of the monthly inspections, Preventative maintenance practices, cleaning and repair activities, and all stormwater monitoring data will be maintained for a period of **five years** with the SWPCP documentation. Training records are maintained in the Port Learning Management System (LMS).

Additional information regarding the monitoring data records is found in Section 5.8.

## Section 5: Monitoring and Reporting Requirements

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### 5.1 General

In addition to the specific requirements established for the quality of stormwater runoff, other existing DEQ rules and requirements apply to all types of discharges. The Port is required to monitor for the statewide benchmarks, impairment pollutants as assigned and the applicable sector specific benchmarks. In addition, discharges must meet Water Quality Standards.

### 5.2 Water Quality Standards

*The permit registrant must not cause a violation of instream water quality standards as established in OAR 340-041.*

Water quality standards have been established for many parameters not specifically limited by the 1200-Z permit. These water quality standards shall not be violated.

### 5.3 Stormwater Discharge Benchmarks

Benchmarks are guideline concentrations, not limitations. They are designed to assist the Port in determining whether the implementation of their SWPCP is reducing pollutant concentrations to below levels of concern. Terminal 6 is subject to State-Wide benchmarks and Sector-Specific Benchmarks.

#### 5.3.1 State-Wide Benchmarks

The following benchmarks apply to each point source discharge of stormwater associated with industrial activity (Table 5.1).

**Table 5-1: Statewide Stormwater Discharge Benchmarks**

Parameter	Benchmark
Total Copper	0.020 mg/L
Total Lead	0.040 mg/L
Total Zinc	0.12 mg/L
pH	5.5 – 9.0 S.U.
Total Suspended Solids	100 mg/L
Oil and Grease	10 mg/L
BOD <sup>1</sup>	33 mg/L
E. coli <sup>1</sup>	406/100mL
Phosphorus <sup>1</sup>	0.16 mg/L

**Notes:**

mg/l – milligrams per liter

ml – milliliter

S.U. – standard unit

<sup>1</sup>Columbia Slough benchmark only

### 5.3.2 Sector-Specific Benchmarks

Sector Q – Water Transportation Facilities have sector-specific monitoring parameters and benchmark concentrations as shown on Table 5.2:

**Table 5-2: Sector Q Discharge Parameters and Benchmarks**

Parameter	Benchmark
Total Aluminum	0.75 mg/l
Total Iron	1.0 mg/l

**Notes:**

mg/l – milligrams per liter

In addition, the following impairment pollutants related to the Columbia River apply to The Port of Portland Terminal 6 facility.

**Table 5-3: Columbia River Impairment Pollutants**

Parameter	Reference Concentration
To be completed upon receipt of Permit Assignment Letter	

### 5.4 Response to Benchmark Exceedance

The Port of Portland and non-Port operators conducting activities subject to the 1200-Z permit shall comply with provisions reference Section A.10 of the permit for corrective actions.

If stormwater sampling results exceed any of the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, within 30 calendar days of obtaining the monitoring results, the Port will:

- Investigate the cause of the elevated pollutant levels. If the elevated pollutant levels appear to be caused by a non-Port operator, the Port will require information from the non-Port operator to assist with the investigation.
- Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit. If permit registrant determines that SWPCP revisions are necessary based on corrective action review, submit the revised pages of the SWPCP to DEQ, including a schedule for implementing the control measures.
- Summarize the following information in a Tier I report that is retained on site and submitted to DEQ upon request:
  - The results of the investigation.

- Corrective actions taken or to be taken by the Port and/or the non-Port operator, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.
- Document whether SWPCP revisions are necessary.
- Implement the corrective actions before the next storm event if possible or as soon as practicable.

## 5.5 Minimum Reporting Requirements

The Port uses a separate monitoring plan for the stormwater monitoring at the Terminal 6 facility. The Port of Portland will monitor stormwater at the designated monitoring points for the following:

**Table 5-4: Primary Monitoring Parameters (Grab Samples)**

Parameter	Frequency
Total Copper	Every year, four times per year (2 on or before December 31; 2 after December 31), unless a monitoring waiver is granted.
Total Lead	
Total Zinc	
pH <sup>2</sup>	
Total Suspended Solids	
Oil & Grease	
BOD <sup>1</sup>	
E. coli <sup>1</sup>	
Phosphorus <sup>1</sup>	
<b>Sector Q-Specific Parameters</b>	
Total Aluminum	Every year, four times per year (2 on or before December 31; 2 after December 31)
Total Iron	
<b>Impairment Pollutants</b>	
To be determined in permit assignment letter	All outfalls every year, twice per year, (one sample on or before December 31, one on or after January 1) Unless a monitoring waiver is granted.

**Notes:**

<sup>1</sup>Columbia Slough discharges only (drainage basin M)

<sup>2</sup>The sampling crew will analyze for pH at each sampling site. The remainder of the analyses will be performed by an outside laboratory in accordance with EPA protocols.



**Table 5-5: Visual Monitoring Parameters**

Parameter	Frequency
Floating Solids (associated with industrial activities)	Once a month (when discharging).
Oil & Grease Sheen	Once a month (when discharging).

## **5.6 Monitoring Waiver**

### **5.6.1 Benchmark and Impairment Pollutant Monitoring**

A monitoring waiver may be requested in the following circumstances:

- If the geometric mean of four consecutive sampling results is below the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant is not required to monitor for these pollutant(s) for the remainder of the permit term. The permit registrant must submit to DEQ the analytical laboratory results from the four sampling events.
  1. Results from sampling events cannot be averaged.
  2. Monitoring waivers may be allowed for individual parameters.
- If the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site, DEQ or Agent will consider these samples as being below the benchmark(s) or reference concentrations for impairment pollutant(s). Permit registrant must submit a Natural Background Waiver report to DEQ that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
- If a facility is inactive and unstaffed and no industrial materials or activities are exposed to stormwater, the permit registrant is not required to conduct monitoring for the remainder of the permit term. (a) Permit registrant must provide documentation with the DMR 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).
  1. The statement must be signed and certified in accordance with Schedule F of the permit.
- The permit registrant must submit to DEQ or Agent a request to exercise the monitoring waiver based on the conditions above and include the documentation to support the request. If DEQ or Agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.

1. There is no reduction in monitoring allowed for:
  - (a) Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.i.3 of the permit.
  - (b) Monitoring for federal numeric effluent limit guidelines.
2. Revocation of Monitoring Waiver
  - (a) The permit registrant must reinstate the monitoring of stormwater discharge if:
    - Prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;
    - Changes to site conditions are likely to affect stormwater discharge characteristics;
    - Additional monitoring occurs and the sampling results exceed benchmark(s), or
    - For inactive or unstaffed sites, the facility becomes active and/or staffed or industrial materials or activities become exposed to stormwater
  - (b) DEQ will notify the permit registrant in writing if the monitoring waiver is revoked.

## **5.7 Monitoring Locations**

Samples must be representative of the discharge. Unless approved in writing by DEQ or Agent, all samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater, or any other waste stream, body of water or substance unless:

- Otherwise approved in writing by DEQ; or
- On-site stormwater flows are combined to utilize a common treatment facility (for example, filter or settling pond). In this case, monitor the discharge from the treatment facility.

Each drainage basin discharging to the Columbia River or Columbia Slough in the Terminal 6 permitted area is sampled. Descriptions of each monitoring location is provided below.

### **Basin K Monitoring Point 001**

The outfall for monitoring point 001 is the northeast corner of basin K and the Berth 606-yard a. In the event that the outfall is inundated, due to high river flows, grab samples will be collected from the manhole immediately upstream of outfall K.

### **Basin L Monitoring Point 002**

This manhole is located in the north-central portion of the facility and receives stormwater from the hazardous cargo area, the Transtainer, Gearlocker, Crane Maintenance, and Administration building areas, a portion of the container yard near Berths 604 and 605 and the parking areas prior to mixing with other runoff. Grab samples will be collected from stormwater flowing within the manhole. Samples collected at this monitoring station represent the runoff from Basin L prior to discharge to the Columbia River.

### **Basin M Monitoring Point 003**

Sample point 003 is designated as a manhole located upstream of the City of Portland's storm sewer and outfall. The manhole is in the parking area for the CDC, just southwest of the building. This monitoring location receives stormwater from the CDC roof, parking lot and maintenance storage areas via catch basins and roof down spouts connected to the piped storm system. Grab samples will be analyzed for the Columbia Slough parameters.

### **Basin O Monitoring Point 004**

The monitoring point is at the outfall located in the northwest corner of the Berth 603 storage yard. This outfall receives stormwater from the Container Yard Gate building, Entrance Canopy, and a portion of the container yard adjacent to Berth 603. In the event that the outfall is inundated, due to high river flows, grab samples will be collected from the manhole immediately upstream of the outfall.

## **5.8 Recordkeeping and Reporting Requirements**

Detailed records must be maintained to provide quality assurance/quality control for a stormwater sampling program. Personnel from the Port of Portland Terminal 6 facility will use the forms provided in the monitoring plan to record the monitoring information. Components of the records management program include the following items:

- Analysis Request Forms
- Chain-of-Custody Forms
- Specific monitoring information (visual and grab sampling).

Records of monitoring information shall include:

- The date, exact place, time, and methods of sampling or measurements
- The individual(s) who performed the sampling or measurements
- The date(s) analyses were performed
- The individual(s) who performed the analyses
- The analytical techniques or method used
- The results of the analyses.

The Field Data Sheets, Chain-of-Custody Forms, and the analytical results shall be maintained by the Environmental Operations department.

### **5.8.1 Reporting Requirements**

A monitoring report must be submitted annually to DEQ. The monitoring report must be submitted by July 30. All monitoring data should be tabulated to permit easy review. In addition to the sampling data, a tabulated record of the visual observations is to be included. The monitoring information for the Port of Portland Terminal 6 facility shall be submitted to:

Ian Garner  
DEQ Northwest Region  
700 NE Multnomah St., Suite #600  
Portland, OR 97232

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**Appendix A**  
**1200-Z NPDES Permit**



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# Oregon

Kate Brown, Governor

Department of Environmental Quality  
Northwest Region Portland Office/Water Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232  
(503) 229-5263  
FAX (503) 229-6957  
TTY 711

October 24, 2018

Vince Granato  
Port of Portland  
PO Box 3529  
Portland, OR 97208-3529

RE: Reissuance NPDES Permit Number 1200-Z  
File Number: 125313 EPA Number. : ORR807319  
Facility: Port of Portland Terminal 6, 7201 North Marine Drive, Portland  
Multnomah County  
SIC Code(s): 4491, 4013, 4225, 4231

Dear Permit Registrant:

The Oregon Department of Environmental Quality has reissued the August 1, 2017, 1200-Z industrial stormwater general permit upon reconsideration. You will find a revised monitoring requirements table based on the settlement terms. This change does not impact monitoring waiver approvals or your Tier II evaluation year. The monitoring year still extends from July 1 to June 30, with two distinct sampling time frames: July 1 through December 31 and January 1 through June 30.

It is your responsibility to take all necessary steps to comply with conditions established in the permit to help protect Oregon's waterways. The October 2018 reissued permit and technical assistance materials are posted on DEQ's industrial stormwater website:

<https://www.oregon.gov/deq/wq/wqpermits/Pages/Stormwater-Industrial.aspx>.

Included in this mailing is a summary of changes. Please print the permit from DEQ's website, read all documents carefully and replace these documents with previously received monitoring requirements table. The monitoring frequencies have increased and Discharge Monitoring Reports are now due quarterly.

Please contact Jenni Seven in DEQ's Northwestern Region office at 503-229-5886 if you have any questions about your permit requirements.

Respectfully,

Jenni Seven, WQ Permit Coordinator  
Northwestern Region

Enclosure: Summary of Changes

**Monitoring Requirements**

You must monitor for the pollutants in the table below. If a parameter is listed more than once in the table below, you must sample according to the highest frequency and the laboratory results must meet the lowest concentration. If benchmarks are exceeded, please refer to Schedule A.10 of the permit for appropriate corrective actions.

**OUTFALL 003:**

Region	Pollutant	Benchmark	Unit	Frequency
Columbia Slough	Total Copper	0.020	mg/L	Four times per year
Columbia Slough	Total Lead	0.060	mg/L	Four times per year
Columbia Slough	Total Zinc	0.24	mg/L	Four times per year
Columbia Slough	pH	5.5-8.5	SU	Four times per year
Columbia Slough	TSS	30	mg/L	Four times per year
Columbia Slough	Total Oil & Grease	10	mg/L	Four times per year
Columbia Slough	E. coli <sup>1</sup>	406	counts/100 mL	Four times per year
Columbia Slough	BOD <sub>5</sub>	33	mg/L	Four times per year
Columbia Slough	Total Phosphorus	0.16	mg/L	Four times per year
SIC Code of Industrial Activity	Pollutant	Sector Specific Benchmark <sup>2</sup>	Units	Frequency
4491	Total Aluminum	0.75	mg/L	Four times per year
4491	Total Iron	1.0	mg/L	Four times per year
LLID: 1227713456445	Pollutant	Impairment Reference Concentration <sup>3</sup>	Units	Frequency
River Mile: 0.76				
Columbia Slough	BOD <sub>5</sub>	30	mg/L	Four times per year
Columbia Slough	Total Iron	1.0	mg/L	Four times per year

<sup>1</sup> Monitoring for E. coli applied to all dischargers in Columbia Slough Region.

<sup>2</sup> Sector-Specific Benchmarks apply to both your primary industrial activity and any co-located industrial activities.

<sup>3</sup> Impairment Pollutants apply to discharges to an impaired water without a TMDL for pollutant(s).

**OUTFALLS 001, 002 & 004:**

Region	Pollutant	Benchmark	Unit	Frequency
Columbia River	Total Copper	0.020	mg/L	Four times per year
Columbia River	Total Lead	0.040	mg/L	Four times per year
Columbia River	Total Zinc	0.12	mg/L	Four times per year
Columbia River	pH	5.5-9.0	SU	Four times per year
Columbia River	TSS	100	mg/L	Four times per year
Columbia River	Total Oil & Grease	10	mg/L	Four times per year
SIC Code of Industrial Activity	Pollutant	Sector Specific Benchmark <sup>1</sup>	Units	Frequency
4491	Total Aluminum	0.75	mg/L	Four times per year
4491	Total Iron	1.0	mg/L	Four times per year



LLID:	Pollutant	Impairment Reference Concentration <sup>2</sup>	Units	Frequency
River Mile:				
Columbia River	Arsenic	0.0021	mg/L	Four times per year
Columbia River	DDT Metabolite (DDE)	0.00001	mg/L	Four times per year
Columbia River	PCBs <sup>3</sup>	0.002	mg/L	Four times per year
Columbia River	Polynuclear Aromatic Hydrocarbons <sup>4</sup>	See footnote	mg/L	Four times per year
	Acenaphthene	0.095	mg/L	
	Anthracene	2.9	mg/L	
	Benz(a)anthracene	0.001	mg/L	
	Benzo(a)pyrene	0.001	mg/L	
	Benzo(b)fluoranthene 3,4	0.001	mg/L	
	Benzo(k)fluoranthene	0.001	mg/L	
	Chrysene	0.001	mg/L	
	Dibenz(a,h)anthracene	0.001	mg/L	
	Fluoranthene	0.014	mg/L	
	Fluorene	0.39	mg/L	
	Indeno(1,2,3-cd)pyrene	0.001	mg/L	
	Pyrene	0.29	mg/L	

<sup>1</sup> Sector-Specific Benchmarks apply to both your primary industrial activity and any co-located industrial activities.

<sup>2</sup> Impairment Pollutants apply to discharges to an impaired water without a TMDL for pollutant(s).

<sup>3</sup> Total PCB (based on the sum of the following aroclors: 1016, 1221, 1232, 1242, 1248, 1254 and 1260)

<sup>4</sup> PAH impairments include sampling for the following parameters: Acenaphthene, Anthracene, Benzo(a) anthracene, Benzo(a) pyrene, Benzo(b) fluoranthene 3,4, Benzo(k) fluoranthene, Chrysene, Dibenz(a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Pyrene

#### Tier II Evaluation Year

Tier II evaluation year for Port of Portland Terminal 6 is the 2018-2019 monitoring year.

#### DMR submittal Deadlines

Reporting Quarters	Months	DMR Due Dates
1 <sup>st</sup>	July-September	November 15
2 <sup>nd</sup>	October-December	February 15*
3 <sup>rd</sup>	January-March	May 15
4 <sup>th</sup>	April-June	August 15*

\*Variance request may be submitted semi-annually as applicable

All monitoring results received between July 1, 2018, and Dec. 31, 2018, must be reported Feb. 15, 2019.



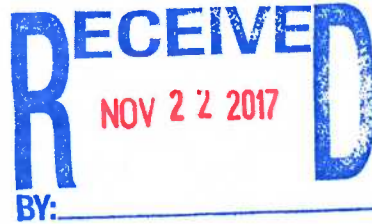
# Oregon

Kate Brown, Governor

Department of Environmental Quality  
Northwest Region Portland Office/Water Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232  
(503) 229-5263  
FAX (503) 229-6957  
TTY 711

November 17, 2017

Vince Granato  
Port of Portland  
PO Box 3529  
Portland, OR 97208-3529



RE: Issuance NPDES Permit Number 1200-Z  
File Number: 125313 EPA Number: : ORR807319  
Facility: Port of Portland Terminal 6, 7201 North Marine Drive, Portland  
Multnomah County  
SIC Code(s): 4491, 4013, 4225, 4231

Dear Permit Registrant:

The Oregon Department of Environmental Quality (DEQ) has issued coverage under the 2017-2022 1200-Z industrial stormwater general permit to the above referenced facility. DEQ has become aware of errors in some Assignment Letters previously provided to registered facilities. Incorrect reference concentrations were provided for the stormwater monitoring parameters DDT Metabolite (DDE), Dieldrin, and PCBs; and the impairment pollutant dissolved copper was omitted from the monitoring requirements for some facilities. Your facility's initial Assignment Letter was identified as containing one or more of these errors.

This letter and attachment provide a CORRECTED Monitoring Table, with the revised reference concentrations and impairment pollutants as appropriate. Additionally, please replace the 1200-Z permit registration face page with the one attached. The final permit is posted on DEQ's industrial stormwater website: <http://www.oregon.gov/deq/FilterPermitsDocs/Final1200Zpermit.pdf>.

Technical assistance materials associated with this permit are located online at DEQ's industrial stormwater webpage via [www.oregon.gov/deq/](http://www.oregon.gov/deq/). As part of the permit requirements, your facility must submit an updated Stormwater Pollution Control Plan to DEQ by **December 29, 2017**. The document must be submitted by email (10 MB limit), thumb drive or on a CD.

Please contact Ian Garner in DEQ's Northwest Region office at (503) 229-5438 if you have any questions about your permit requirements.

Respectfully,

  
Ian Garner, WQ Permit Coordinator  
Northwest Region

Attachments: Monitoring Requirements  
1200-Z Permit Cover Page

cc: File

**OUTFALL 003:****CORRECTED Monitoring Requirements\*\* November 17, 2017**

You must monitor for the pollutants in the table below. If a parameter is listed more than once in the table below, you must sample according to the highest frequency and the laboratory results must meet the lowest concentration. If benchmarks are exceeded, please refer to Schedule A.10 of the permit for appropriate corrective actions.

Region	Pollutant	Benchmark	Unit	Frequency
Columbia Slough	Total Copper	0.020	mg/L	Four times per year
Columbia Slough	Total Lead	0.060	mg/L	Four times per year
Columbia Slough	Total Zinc	0.24	mg/L	Four times per year
Columbia Slough	pH	5.5-8.5	SU	Four times per year
Columbia Slough	TSS	30	mg/L	Four times per year
Columbia Slough	Total Oil & Grease	10	mg/L	Four times per year
Columbia Slough	E. coli <sup>1</sup>	406	counts/100 mL	Four times per year
Columbia Slough	BOD <sub>5</sub>	33	mg/L	Four times per year
Columbia Slough	Total Phosphorus	0.16	mg/L	Four times per year
SIC Code of Industrial Activity	Pollutant	Sector Specific Benchmark <sup>2</sup>	Units	Frequency
4491	Total Aluminum	0.75	mg/L	Four times per year
4491	Total Iron	1.0	mg/L	Four times per year
LLID: 1227713456445	Pollutant	Impairment Reference Concentration <sup>3</sup>	Units	Frequency
River Mile: 0.76				
Columbia Slough	BOD <sub>5</sub>	30	mg/L	Two times per year
Columbia Slough	Total Iron	1.0	mg/L	Two times per year

<sup>1</sup> Monitoring for E. coli applied to all dischargers in Columbia Slough Region.

<sup>2</sup> Sector-Specific Benchmarks apply to both your primary industrial activity and any co-located industrial activities.

<sup>2</sup> Impairment Pollutants apply to discharges to an impaired water without a TMDL for pollutant(s).

**\*\*If this facility has analyzed a stormwater sample under an earlier Assignment Letter, please clearly show this on the Annual Discharge Monitoring Report submitted on or before July 31, 2018.**

**OUTFALLS 001, 002 & 004:****CORRECTED Monitoring Requirements\*\* November 17, 2017**

You must monitor for the pollutants in the table below. If a parameter is listed more than once in the table below, you must sample according to the highest frequency and the laboratory results must meet the lowest concentration. If benchmarks are exceeded, please refer to Schedule A.10 of the permit for appropriate corrective actions.

Region	Pollutant	Benchmark	Unit	Frequency
Columbia River	Total Copper	0.020	mg/L	Four times per year
Columbia River	Total Lead	0.040	mg/L	Four times per year
Columbia River	Total Zinc	0.12	mg/L	Four times per year

Columbia River	pH	5.5-9.0	SU	Four times per year
Columbia River	TSS	100	mg/L	Four times per year
Columbia River	Total Oil & Grease	10	mg/L	Four times per year
SIC Code of Industrial Activity	Pollutant	Sector Specific Benchmark <sup>1</sup>	Units	Frequency
4491	Total Aluminum	0.75	mg/L	Four times per year
4491	Total Iron	1.0	mg/L	Four times per year
LLID:	Pollutant	Impairment Reference Concentration <sup>2</sup>	Units	Frequency
River Mile:				
Columbia River	Arsenic	0.0021	mg/L	Two times per year
Columbia River	DDT Metabolite (DDE)	0.00001	mg/L	Two times per year
Columbia River	PCBs <sup>3</sup>	0.002	mg/L	Two times per year
Columbia River	Polynuclear Aromatic Hydrocarbons <sup>4</sup>	See footnote	mg/L	Two times per year
Columbia River	Acenaphthene	0.095	mg/L	
Columbia River	Anthracene	2.9	mg/L	
Columbia River	Benz(a)anthracene	0.001	mg/L	
Columbia River	Benzo(a)pyrene	0.001	mg/L	
Columbia River	Benzo(b)fluoranthene 3,4	0.001	mg/L	
Columbia River	Benzo(k)fluoranthene	0.001	mg/L	
Columbia River	Chrysene	0.001	mg/L	
Columbia River	Dibenz(a,h)anthracene	0.001	mg/L	
Columbia River	Fluoranthene	0.014	mg/L	
Columbia River	Fluorene	0.39	mg/L	
Columbia River	Indeno(1,2,3-cd)pyrene	0.001	mg/L	
Columbia River	Pyrene	0.29	mg/L	

<sup>1</sup> Sector-Specific Benchmarks apply to both your primary industrial activity and any co-located industrial activities.

<sup>2</sup> Impairment Pollutants apply to discharges to an impaired water without a TMDL for pollutant(s).

<sup>3</sup> Total PCB (based on the sum of the following aroclors: 1016, 1221, 1232, 1242, 1248, 1254 and 1260)

<sup>4</sup> PAH impairments include sampling for the following parameters: Acenaphthene, Anthracene, Benzo(a) anthracene, Benzo(a) pyrene, Benzo(b) fluoranthene 3,4, Benzo(k) fluoranthene, Chrysene, Dibenz(a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Pyrene

**\*\*If this facility has analyzed a stormwater sample under an earlier Assignment Letter, please clearly show this on the Annual Discharge Monitoring Report submitted on or before July 31, 2018.**

#### Tier II Evaluation Year

Tier II evaluation year for Port of Portland Terminal 2 is the 2018-2019 monitoring year.

GENERAL PERMIT  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
STORMWATER DISCHARGE PERMIT  
Department of Environmental Quality  
700 NE Multnomah St., Suite #600 Portland, OR 97232  
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon  
Issued pursuant to ORS 468B.050 and the Federal Clean Water Act

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ISSUED TO: File # 125313

Date Issued: August 1, 2017

Port of Portland  
PO Box 3529  
Portland, OR 97208

Multnomah County  
EPA# ORR807319

Site Location: Port of Portland Terminal 6, 7201 North Marine Drive, Portland

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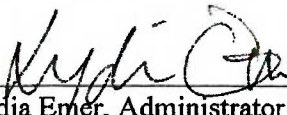
SOURCES COVERED UNDER THIS PERMIT:

A facility that may discharge industrial stormwater to surface waters or to conveyance systems that discharge to surface waters of the state and

1. The stormwater is associated with an industrial activity identified in Table 1: Sources Covered or listed in Table 2: Additional Activities Covered; or
2. The facility is notified in writing by the Director that coverage under this permit is required for its stormwater discharges (see Note 1 below).

Note 1:

1. The Director designates the facility as requiring stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D).
2. Facilities may apply for conditional exclusion from the requirement to obtain coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR §122.26(g); see Permit Coverage and Exclusion from Coverage.
3. The following are not eligible to obtain coverage under this permit:
  - i. Construction activities; Primary Standard Industrial Classification codes 2951 and 3273, including mobile asphalt and concrete batch plants; and Standard Industrial Classification code 14, Mining and Quarrying of Nonmetallic Minerals, Except Fuels. These activities are covered under a separate general permit.
  - ii. Any source that has obtained an individual NPDES permit for the discharge, unless the source is otherwise eligible for coverage under this permit and DEQ has approved the source's application for coverage under this general permit.
  - iii. Any source that discharges to a sanitary sewer system and the discharge is approved by the sanitary sewer operator.

  
Lydia Emer, Administrator  
Operations Division

Issuance Date: August 1, 2017

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PERMITTED ACTIVITIES

Until this permit expires, is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater and non-stormwater discharges specifically authorized by the permit to public surface waters in conformance with all the requirements, limitations, and conditions set forth in the following schedules:

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Unless specifically authorized by this permit, by regulation issued by EPA, by another NPDES permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including non-stormwater discharges to an underground injection control system.

Schedule F contains General Conditions that are included in all general permits issued by DEQ. Should conflicts arise between Schedule F and any other schedule of the permit, the requirements in Schedule F may not apply.

**Table 1: Sources Covered**

<b>Types of Industrial Sources Covered Under this Permit</b>
<p>Facilities with the following primary Standard Industrial Classification (SIC) codes:</p> <ul style="list-style-type: none"> <li>10 Metal Mining</li> <li>12 Coal Mining</li> <li>13 Oil and Gas Extraction</li> <li>20 Food and Kindred Products</li> <li>21 Tobacco Products</li> <li>22 Textile Mill Products</li> <li>23 Apparel and Other Finished Products Made From Fabrics and Similar Material</li> <li>24 Lumber and Wood Products, Except Furniture (Activities with SIC 2411 Logging that are defined in 40 CFR §122.27 as silvicultural point source discharges are covered by this permit.)</li> <li>25 Furniture and Fixtures</li> <li>26 Paper and Allied Products</li> <li>27 Printing, Publishing and Allied Industries</li> <li>28 Chemicals and Allied Products Manufacturing and Refining (excluding 2874: including 2911)</li> <li>29 Asphalt Paving and Roofing Materials and Lubricants (excluding 2951, covered by 1200-A)</li> <li>30 Rubber and Miscellaneous Plastics Products</li> <li>31 Leather and Leather Products</li> <li>32 Glass, Clay, Cement, Concrete and Gypsum Products (excluding 3273, covered by 1200-A)</li> <li>33 Primary Metal Industries</li> <li>34 Fabricated Metal Products, Except Machinery and Transportation Equipment (excluding 3479)</li> <li>35 Industrial and Commercial Machinery and Computer Equipment</li> <li>36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment</li> <li>37 Transportation Equipment</li> <li>38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks</li> <li>39 Miscellaneous Manufacturing Industries</li> <li>4221 Farm Product Warehousing and Storage</li> <li>4222 Refrigerated Warehousing and Storage</li> <li>4225 General Warehousing and Storage</li> <li>5015 Motor Vehicle Parts, Used</li> <li>5093 Scrap and Waste Materials</li> </ul>
<p>Facilities with the following primary SIC codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations:</p> <ul style="list-style-type: none"> <li>40 Railroad Transportation</li> <li>41 Local and Suburban Transit and Interurban Highway Passenger Transportation</li> <li>42 Trucking and Courier Services, Except Air (excluding 4221, 4222, and 4225)</li> <li>43 United States Postal Service</li> <li>44 Water Transportation</li> <li>45 Transportation by Air</li> <li>5171 Petroleum Bulk Stations and Terminals, except petroleum sold via retail method.</li> </ul>
<p>Steam Electric Power Generation including coal handling sites</p>
<p>Landfills, land application sites and open dumps</p>
<p>Hazardous Waste Treatment, storage and disposal facilities</p>
<p>Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, 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 the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.</p>

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In addition to the industrial sources listed in Table 1, facilities that discharge stormwater into the Columbia Slough or Portland Harbor that is exposed to any of the industrial activities listed in Table 2 below, are eligible to obtain permit coverage under the NPDES 1200-Z.

**Table 2: Additional Industrial Activities Covered**

<b>Discharges to Columbia Slough and Portland Harbor</b>
Maintenance of vehicles, machinery, equipment, and trailers (including repairs, servicing, washing, testing and painting)
Storage of vehicles, machinery, equipment (including disposal/refuse containers stored by a disposal/refuse contractor/vendor), and trailers (including rental, sales, wrecked vehicles, fleet, and general storage)
Materials storage (including raw materials; bulk fuels, chemicals, detergents, and plastic pellets; finished materials; lumber and food products; wholesale gravel, sand, and soil stockpiles; and bulk liquids other than water)
Waste handling (including recycled product storage, composting, tires, and bulk hazardous waste)
Commercial animal operations (such as kennels, race tracks, and veterinarians not covered under a Confined Animal Feeding Operation permit)
Fuel distribution and sales (including bulk stations, fuel oil dealers, manned and unmanned retail stations, fleet fueling, mobile fueling, and truck stops)
Any former activity that resulted in significant materials (as defined in Schedule D) remaining on-site



## PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

### 1. New Discharger to Impaired Waters (see Schedule D.3, Definitions)

- a. A new discharger to an impaired water without a Total Maximum Daily Load (TMDL), based on EPA-approved 303(d) list (Category 5) that is in effect on May 1, 2017, for pollutant(s) must meet one of the following conditions to obtain coverage under this permit:
  - i. Prevent all pollutants for which the waterbody is impaired from exposure to stormwater and document in the Stormwater Pollution Control Plan (SWPCP) procedures taken to prevent exposure on-site; or
  - ii. Document in SWPCP that the pollutant(s) for which the waterbody is impaired are not present at the site; or
  - iii. Provide data and other technical information that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired at the point of discharge to the waterbody if the pollutant(s) for which the waterbody is impaired are likely to be present at the site and DEQ has not issued a TMDL for the pollutant(s).
  - iv. If a new discharger is unable to meet the above conditions, discharge must cease; or
  - v. Obtain coverage under an individual permit.
- b. A new discharger to an impaired water with a TMDL (based on EPA-approved TMDLs as of May 1, 2017) coverage may be authorized if:
  - i. The TMDL does not establish industrial stormwater wasteload allocations, the compliance with the terms and conditions of the permit is presumed consistent with the TMDL; or
  - ii. The permit does not already address industrial wasteload allocations in the permit, then DEQ will inform the applicant if any additional monitoring, site controls or compliance schedules are necessary to prevent industrial stormwater from exceeding the wasteload allocation(s) in the TMDL(s); or
  - iii. Coverage under an individual permit is necessary.
- c. Conditions 1.a and b above do not apply if the waterbody is impaired for:
  - i. Biological communities and no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment; or
  - ii. Temperature, hydrologic modifications, or impaired hydrology.

### 2. New Application for Permit Coverage Requirements

- a. The following conditions apply to:
  - i. New facility: Submit a complete application to DEQ or agent (see Schedule D.4 for description of agent) at least 60 calendar days before initiating the activity that requires permit coverage, unless DEQ or agent approved a later date.
  - ii. Existing facility with stormwater discharges associated with industrial activities identified in Table 1 or Table 2 and operating without coverage under any NPDES permit for those discharges: Immediately submit a complete application to DEQ or agent, unless DEQ or agent approved a later date.
  - iii. Existing facility that is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D): No later than 90 calendar days of being notified by DEQ that permit coverage is required, submit a complete application to DEQ or agent.

- iv. Existing facility operating under permit coverage that intends to change industrial processes at the site to a new primary industrial sector: Submit a complete application to DEQ or agent at least 60 calendar days before initiating the planned change, unless DEQ or agent approved a later date.
- v. Existing facility whose stormwater discharges are authorized by an individual NPDES permit and seeks coverage under this permit: Submit a complete application to DEQ or agent and a copy of the individual NPDES permit.
- vi. A complete application must include the following:
  - (1) Applicable permit fees;
  - (2) DEQ-approved application form;
  - (3) A determination, on a DEQ-approved form, from the local government agency with land use jurisdiction that states the use is compatible with acknowledged local land use plans and;
  - (4) One paper copy and one electronic pdf copy of the SWPCP.
- b. Permit Coverage
  - i. Prior to granting the applicant coverage under this permit, DEQ will provide a 30 calendar day public review period on the applicant's SWPCP and the proposed permit assignment letter. DEQ or agent will respond in writing to any applicable public comments.
  - ii. DEQ will notify the applicant in writing if coverage is granted or denied. When coverage is granted, DEQ or agent will establish monitoring year and outline monitoring requirements in the permit assignment letter (see Schedule D.3, Definitions).
- c. If coverage is denied or the applicant does not wish to be regulated by this permit, the applicant must apply for an individual permit in accordance with OAR 340-045-0030 or cease discharge.

### **3. Existing Facilities Covered Under the 1200-COLS or 1200-Z NPDES General Permits**

- a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility covered under the 1200-Z permit that expired on June 30, 2017, must have submitted a DEQ-approved renewal application form to DEQ or agent, by January 3, 2017, unless DEQ or agent approved a later date.
- b. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility covered under the 1200-COLS permit that expired on September 30, 2016, must have submitted a DEQ-approved renewal application form to DEQ or agent, by August 1, 2016, unless DEQ or agent approved a later date.
- c. DEQ will notify registrants in writing if coverage is approved or denied. Renewed facilities must submit updated SWPCP to DEQ or agent by December 29, 2017, unless DEQ or agent approved a later date.
- d. For Tier II corrective action requirements triggered during the second year of coverage from the 1200-COLS permit that expired on September 30, 2016 or during the second year of coverage under the 1200-Z permit that expired on June 30, 2017, permit registrants must comply with the implementation deadline in the previous permit.
- e. Permit registrants for which Tier II corrective action implementation deadline was after June 30, 2017, under the 1200-COLS permit that expired on September 30, 2016 or under the 1200-Z permit that expired on June 30, 2017, are exempt from Schedule A.11 for the parameter(s) and discharge point(s) that triggered Tier II.

**4. Existing Facilities Covered Under the 1200-ZN or 1200-COLSB**

- a. Permit registrants for which DEQ or agent has received a renewal application, facilities will automatically be re-assigned coverage under this permit in accordance to condition 3.c.

**5. Name Change or Transfer of Permit Coverage**

- a. For a name change or transfer of permit coverage between legal entities, the new owner or operator must submit to DEQ no later than 30 calendar days after the name change or planned transfer. A complete application must include the following:
  - i. One paper copy of a DEQ-approved Name Change and/or Permit Transfer form;
  - ii. One paper copy and one electronic pdf copy of an updated SWPCP; and
  - iii. Applicable fee.
- b. DEQ will notify the applicant in writing if the name change or transfer is approved or denied. Transfer of permit will be effective upon DEQ approval.
- c. For a name change or transfer of permit coverage between legal entities where there will also be a change in an industrial process at the site to a new primary industrial sector, the owner or operator must submit a new application for coverage under this permit as required in condition 2.a.iv above.

**6. “No Exposure” Conditional Exclusion from Permit Coverage**

- a. An owner or operator that applies for a “no exposure” conditional exclusion under 40 CFR §122.26(g) from coverage under this permit must:
  - i. Protect industrial materials and activities from exposure to rain, snow, snowmelt, and runoff by using a storm resistant shelter, except as provided in the Environmental Protection Agency (EPA) Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on “No Exposure” of Industrial Activities to Stormwater (EPA 833-B-00-001, June 2000) and EPA’s Fact Sheet on Conditional No Exposure Exclusion for Industrial Activity (EPA 833-F-00-015, revised December 2005). Storm resistant shelters with unsealed zinc or copper roofing materials are not eligible for the “no exposure” conditional exclusion;
  - ii. Ensure that known significant materials from previous operations are controlled, removed or otherwise not exposed to stormwater.
  - iii. Complete and sign a DEQ-approved certification, that there is no stormwater exposure to industrial materials and activities from the entire facility.
  - iv. Submit the signed certification to DEQ or agent once every five years, beginning five years after the date of first submittal. If DEQ or agent does not comment on the “no exposure” certification within 60 calendar days, the “no exposure” conditional exclusion is deemed approved. DEQ or agent may notify the applicant in writing or by email of its approval. The owner or operator must keep a copy of the approved certification on-site.
  - v. Allow DEQ or agent to inspect the facility to determine compliance with the “no exposure” conditions; and
  - vi. If facility discharges through a municipal separate storm sewer system (MS4) submit a copy of the “no exposure” certification to the MS4 operator (for example, local municipality or district), upon their request, and allow inspection and public reporting by the MS4 operator.
- b. Limitations for obtaining or maintaining the exclusion:
  - i. This exclusion is available on a facility-wide basis only, not for individual discharge points.

- ii. If any industrial materials or activities become exposed to rain, snow, snowmelt, or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement. Any conditionally exempt discharger who anticipates changes in circumstances must apply for and obtain permit coverage before the change of circumstances.
- iii. DEQ or agent retains the authority to make a determination that the “no exposure” conditional exclusion no longer applies and require the owner or operator to obtain permit coverage.

## **7. Electronic Submissions**

- a. The applicant for coverage must submit the application and related documents in an electronic format to the initial recipient as specified below or as directed otherwise by DEQ as the National Pollutant Discharge Elimination System (NPDES) regulatory authority in Oregon according to 40 CFR 127.
- b. Beginning after December 21, 2020, or when directed by DEQ, the permit registrant must submit application and related documents on DEQ-approved web-based forms including pre-approved attachments.
  - i. Submit any documents, including the SWPCP, not entered on the NeT format as a separate attachment in the NeT electronic tool. DEQ must pre-approve the attachment forms as an integral part of the DEQ-approved application.
  - ii. The permit registrant must sign and certify all electronic submissions in accordance with the requirements of Section D8 within Schedule F of this permit.
- c. In accordance with 40 CFR 122.41(i)(9), DEQ will identify the initial recipient that is the designated entity for receiving electronic NPDES data. Until further notice from DEQ, EPA is the initial recipient to receive electronic submissions, and the permit registrant will use EPA’s NeT for electronic reporting. DEQ will notify the permit registrant in advance of changes to the initial recipient status and use of another electronic reporting system other than NeT.

## **8. Authorized Non-Stormwater Discharges**

- a. Subject to the terms and conditions of the permit and Oregon law, the following non-stormwater discharges are authorized:
  - i. Discharges from emergency or unplanned fire-fighting activities;
  - ii. Fire hydrant flushing and maintenance;
  - iii. Potable water, including water line flushing;
  - iv. Uncontaminated condensate from air conditioners, coolers, chillers and other compressors, and from outside storage of refrigerated gases and liquids;
  - v. Landscape watering and irrigation drainage;
  - vi. Exterior vehicle wash water that does not use hot water or detergent; restricted to less than 8 per week;
  - vii. Pavement wash water that does not use hot water, detergent or other cleaning products, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing;
  - viii. Routine external building wash down that does not use hot water, detergent or other cleaning products;
  - ix. Uncontaminated ground water or spring water;
  - x. Foundation or footing drains where flows are not contaminated with process materials; and

- xi. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains).
- b. Separate any piping of interior floor drains and process wastewater discharge points from the storm drainage system to prevent unpermitted discharge of pollutants to waters of the state. Discharge from floor drains to the stormwater drainage system is a violation of this permit.
- c. Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or is discharged to the sanitary sewer with approval from the sanitary sewer system operator.

**9. Limitations on Coverage**

- a. Pursuant to OAR 340-045-0033(10), DEQ may deny permit coverage to an applicant or revoke a permit registrant’s coverage under this permit and require the owner or operator to apply for and obtain an individual permit.
- b. Coverage under this permit is not available under the following circumstances:
  - i. If all stormwater discharges are regulated by another NPDES permit, except a MS4 permit.
  - ii. If stormwater discharges were included in a permit that has been or is in the process of denial, termination or revoked unless the source is otherwise eligible for coverage under this permit and DEQ approves the source’s application to register under it and simultaneously revokes coverage under the other permit.
  - iii. For new discharger to waters designated as Outstanding Resource Waters for antidegradation purposes under 40 CFR 131.12(a)(3) and OAR 340-041-0004.
- c. Any operator not seeking coverage under this general permit must apply for an individual NPDES permit in accordance with the procedures in OAR 340-045-0030.

## SCHEDULE A

### TECHNOLOGY BASED EFFLUENT LIMITATIONS

#### 1. Narrative Technology-Based Effluent Limits

The permit registrant must meet the following narrative technology based effluent limits and additional sector-specific limits in Schedule E of this permit, if applicable.

- a. Minimize exposure - Minimize exposure of manufacturing, processing, material storage areas, including loading and unloading, disposal, cleaning, maintenance and fixed fueling areas to rain, snow, snowmelt and runoff. To the extent technologically available and economically practicable and achievable in light of best industry practice, the permit registrant must do the following:
  - i. Locate materials and activities indoors or protect them with storm resistant covers if stormwater from affected areas may discharge to surface waters. Acceptable covers include, permanent structures such as roofs or buildings and temporary covers such as tarps;
  - ii. Use grading, berming, or curbing to divert stormwater away from these areas and prevent stormwater contamination;
  - iii. Store all hazardous substances (see Schedule D.3, Definitions), petroleum/oil liquids, and other chemical solid or liquid materials that have potential to contaminate stormwater within berms or other secondary containment devices to prevent leaks and spills. If the use of berms or secondary containment devices is not practicable, then store such substances in areas that do not drain off-site or into the storm sewer system;
  - iv. Locate materials, equipment and activities in containment and diversion systems, including the storage of leaking or leak-prone vehicles and equipment awaiting maintenance, to prevent leaks and spills from contaminating stormwater;
  - v. Use drip pans or absorbents under or around leaking or leak-prone vehicles/equipment or store indoors. Drain fluids from equipment and vehicles prior to on-site storage or disposal;
  - vi. Perform all cleaning operations indoors, under cover or in bermed areas that prevent runoff and run-on and also captures overspray;
  - vii. Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment;
  - viii. Ensure that all wash water is managed indoors or in bermed areas disposed into sanitary sewer or drain to a proper collection system such as a closed-loop system or vegetated area and does not discharged to the stormwater drainage system unless allowed under condition 8, authorized non-stormwater discharge; and
  - ix. Ensure that known significant materials from previous operations are controlled, removed or otherwise not exposed to stormwater.
- b. Oil and Grease - Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination in stormwater discharges.
- c. Waste Chemicals and Material Disposal - Recycle or properly dispose of wastes to eliminate or minimize exposure of pollutants to stormwater. Cover all waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste to prevent exposure of stormwater to these pollutants. Acceptable covers include, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.
- d. Erosion and Sediment Control - Stabilize exposed areas and contain runoff using structural and nonstructural controls to minimize erosion of soil at the site and sedimentation. Employ erosion

control methods, such as vegetating exposed areas, graveling or paving to minimize erosion of soil at the site. Employ sediment control methods, such as detention facilities, vegetated filter strips, bioswales, flow velocity dissipation devices or other permanent erosion or sediment controls to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements related to stormwater control.

- e. Debris Control - Employ screens, booms, settling ponds, or other methods to eliminate or minimize waste, garbage and floatable debris in stormwater discharges and ensure that this debris is not discharged to receiving waters.
- f. Dust Generation and Vehicle Tracking of Industrial Materials - Minimize generation of dust and tracking on exposed surfaces within and between operational areas and off-site of soil, particulates, and raw, final or waste materials.
- g. Housekeeping - Routinely clean all exposed areas that may contribute pollutants to stormwater with measures such as sweeping at regular intervals, litter pick-up, keeping materials orderly and labeled, prompt clean-up of spills and leaks, proper maintenance of vehicles and stowing materials in appropriate containers.
- h. Spill Prevention and Response Procedure - Minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans that include methods for spill prevention and clean-up and notification procedures. At a minimum, the permit registrant must use spill prevention and response measures including the following:
  - i. Procedures for plainly labeling containers that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur as required by local, state and federal rules;
  - ii. Preventative measures, such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
  - iii. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Make the methods and procedures available to appropriate personnel. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures. Have the necessary clean-up material on-site and readily available; and
  - iv. Procedures for notification of appropriate facility personnel, DEQ or agent, and the Oregon Emergency Response System (1-800-452-0311), when a spill may endanger health or the environment. Contact information must be in locations that are readily accessible and available.
- i. Preventative Maintenance - Regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation as designed and in a manner that prevents the discharge of pollution.
- j. Employee Education - Develop and maintain an employee orientation and education program to inform personnel on the pertinent components and goals of this permit and the SWPCP.
  - i. Training must cover:
    - (1) Specific control measures used to achieve the narrative technology based effluent limits, such as spill response procedures and good housekeeping practices, and
    - (2) Monitoring, inspection, reporting and documentation requirements.

- ii. Permit registrant must ensure that the following personnel are trained and understand the facility's specific requirements and their responsibilities:
  - (1) Personnel who are responsible for the design, installation, maintenance, or repair of controls including, pollution prevention and treatment measures;
  - (2) Personnel responsible for the storage and handling of chemicals and materials that could contribute pollutants to stormwater;
  - (3) Personnel who are responsible for conducting or documenting monitoring or inspections as required in Schedule B; and
  - (4) Personnel who are responsible for conducting and documenting corrective actions.
- iii. Education and training must be documented and must occur:
  - (1) No later than 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP;
  - (2) No later than 30 calendar days of change in duties for key personnel in Schedule A.1.j.ii; and
  - (3) Annually thereafter.
- iv. Education and training must be documented and include which specific employees received training. A log of training dates must kept on-site and submitted to DEQ or agent upon request.
- k. Non-Stormwater Discharges - Eliminate any non-stormwater discharges not authorized by a NPDES permit (see condition 8; Permit Coverage and Exclusion from Coverage section of this permit for a list of authorized non-stormwater discharges).

**2. Numeric Technology-Based Effluent Limits based on Stormwater Specific Effluent Limitations**

**Guidelines** - The permit registrant with the following industrial activities must meet the effluent limits referenced in the Table 3 below. An exceedance of the effluent limitation is a permit violation. See Schedule B.9 for corrective action requirements.

**Table 3: Numeric Effluent Limit Guidelines**

<b>Regulated Activity</b>	<b>40 CFR Part/Subpart</b>	<b>Effluent Limit</b>
Runoff from asphalt emulsion facilities (co-located SIC code only, 2951 covered under the 1200-A)	Part 443, Subpart A	See Schedule E.D.2
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Schedule E.E.5
Runoff from hazardous waste landfills	Part 445, Subpart A	See Schedule E.K.3
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Schedule E.L.7
Runoff from coal storage piles at steam electric generating facilities	Part 423, Subpart E	See Schedule E.O.5



Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449, Subpart S	See Schedule E.S.7

**3. Control Measures for Technology Based Effluent Limits**

- a. The permit registrant must select, design, install, implement and maintain control measures, including all best management practices, (BMPs), to meet the narrative technology-based and numeric effluent limits in Schedule A.1, A.2 and Schedule E of this permit and describe these measures, maintenance schedules and frequency of housekeeping measures in the SWPCP.
- b. For technology-based effluent limits that require permit registrants to minimize pollutants in the discharge, permit registrants must reduce or eliminate pollutants to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.
- c. The term “minimize” means reduce or eliminate, or both, 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. The term “feasible” means technologically possible and economically practicable and achievable in light of best industry practice. In selecting the appropriate control measures to meet these limits, permit registrant may consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reductions likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions.
- d. The permit registrant must install, implement and maintain the control measures in accordance with good engineering practices and manufacturers’ specifications. Justify any deviation from the manufacturer’s specifications in the SWPCP.
- e. DEQ or agent may require the permit registrant to take corrective actions to meet the narrative technology-based and numeric effluent limits in Schedule A.1, A.2 and Schedule E of this permit.
  - i. If the permit registrant is failing to implement the control measures in the SWPCP, they must take corrective actions and implement the measures before the next storm event if practicable, unless otherwise approved by DEQ or agent.
- f. If modifications to the control measures are necessary to meet the technology-based effluent limits in this permit, the permit registrant must revise the SWPCP no later than 30 calendar days from completion of the modifications, unless otherwise approved by DEQ or agent. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 calendar days from discovering the violation, unless DEQ or agent approved a later date.

## **WATER QUALITY BASED EFFLUENT LIMITATIONS**

### **4. Water Quality Standards**

- a. The permit registrant must not cause or contribute to a violation of instream water quality standards as established in OAR 340-041.
- b. If at any time the permit registrant becomes aware, or DEQ or agent determines, that the discharge causes or contributes to an excursion of water quality standards permit registrant must take the following corrective actions:
  - i. No later than 24-hours of discovering the violation:
    - (1) Investigate the conditions that triggered the violation; and
    - (2) Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with this permit.
  - ii. No later than 30 calendar days after receiving the monitoring results, submit a Water Quality Standards Corrective Action report to DEQ or agent that documents the following:
    - (1) The results of the investigation, including the date the violation was discovered and a brief description of the conditions that triggered the violation;
    - (2) Corrective actions taken or to be taken, including the date the corrective action was completed or is expected to be completed; and
    - (3) Document whether SWPCP revisions are necessary. If permit registrant determines that SWPCP revisions are necessary based on the corrective action review, submit a revised SWPCP to DEQ or agent with the report.
  - iii. Permit registrant must implement the corrective action before the next storm event, if possible, or no later than 30 calendar days after discovering the violation, whichever comes first, unless DEQ or agent approved a later date.
- c. DEQ or agent may impose additional monitoring, site controls or compliance schedules on a site-specific basis, or require the permit registrant to obtain coverage under an individual permit, if information in the application, required reports, or from other sources indicates that the discharge is causing or contributing to a violation of water quality standards, either in the receiving waterbody or a downstream waterbody. If DEQ or agent determines that additional site specific requirements are necessary, DEQ or agent will require the permit registrant to revise the SWPCP. DEQ will hold a 30 calendar day public review period on the revised SWPCP.

### **5. Discharges to Impaired Waters**

- a. Existing Discharger to an Impaired Water without a TMDL for Pollutant(s) - Permit registrant that discharges to an impaired water without a TMDL, based on EPA-approved 303(d) list (Category 5) that is in effect on May 1, 2017, for the pollutant(s) must meet Schedule A.4 and B.1.b of this permit.
- b. Existing Discharger to an Impaired Water with a TMDL for Pollutant(s) - DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL, unless the TMDL(s) establishes wasteload allocation(s) for industrial stormwater discharges. If DEQ determines that additional monitoring, site controls or compliance schedules are necessary to comply with applicable TMDL wasteload allocations for industrial stormwater discharges, DEQ will require a SWPCP revision. DEQ will hold a 30 calendar day public review period on the revised SWPCP. Permit registrant must meet Schedule A.4 and B.1.b of this permit.

- c. New Discharger to an Impaired Water - New discharges to impaired waters authorized to discharge under this permit must implement and maintain any control measures or conditions on the site that enabled the permit registrant to become eligible for permit coverage and modify such measures or conditions as necessary pursuant to corrective action requirements in this permit. Permit registrant must meet Schedule A.4 and B.1.b of this permit.
- d. For the purposes of this permit, impaired waters and approved TMDLs will be based on those in effect as of May 1, 2017.

## **STORMWATER POLLUTION CONTROL PLAN**

### **6. Preparation and Implementation of SWPCP**

- a. The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility.
- b. The SWPCP must be signed and certified in accordance with 40 CFR §122.22.
- c. The SWPCP must include each narrative technology-based effluent limit to eliminate or reduce the potential to contaminate stormwater and prevent any violation of instream water quality standards.
- d. Permit registrants must implement the SWPCP and any revisions to the plan. Failure to implement any of the control measures or practices described in the SWPCP is a violation of this permit.
- e. The SWPCP must be kept current and revised as necessary to reflect applicable changes to the site.
- f. Revisions must be made in accordance with Schedule A.8.

### **7. Required Elements**

The SWPCP, at a minimum, must include the components below and describe how the permit registrants intends to comply with the narrative technology-based effluent limit to eliminate or reduce the potential to contaminate stormwater and prevent any violation of instream water quality standards.

- a. Title Page - The title page of the SWPCP must contain the following information:
  - i. Plan date.
  - ii. Name of the site.
  - iii. Name of the site operator or owner.
  - iv. The name of the person(s) preparing the SWPCP.
  - v. File number and EPA permit number as indicated in permit coverage documents.
  - vi. Primary SIC code and any co-located SIC codes.
  - vii. Contact person(s) name, telephone number and email.
  - viii. Physical address, including county, and mailing address if different.
- b. Site Description - The SWPCP must contain the following information:
  - i. A site map including the following:
    - (1) general location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features;
    - (2) drainage patterns;
    - (3) conveyance and discharge structures, such as piping or ditches;
    - (4) all discharge points assigned a unique three-digit identifying number starting with 001, 002 used for electronic reporting;

- (5) outline of the drainage area for each discharge point;
  - (6) paved areas and buildings within each drainage area;
  - (7) areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials;
  - (8) existing structural control measures for minimizing pollutants in stormwater runoff;
  - (9) structural features that reduce flow or minimize impervious areas;
  - (10) material handling and access areas;
  - (11) hazardous waste treatment, storage and disposal facilities;
  - (12) location of wells including waste injection wells, seepage pits, drywells;
  - (13) location of springs, wetlands and other surface waterbodies both on-site and adjacent to the site;
  - (14) location of groundwater wells;
  - (15) location and description of authorized non-stormwater discharges;
  - (16) exact location of monitoring points, indicating if any discharge points are “substantially similar” and not being monitored;
  - (17) location and description of spill prevention and cleanup materials; and
  - (18) locations of the following materials and activities if they are exposed to stormwater and applicable:
    - (A) fueling stations;
    - (B) vehicle and equipment maintenance cleaning areas;
    - (C) loading/unloading areas;
    - (D) locations used for the treatment, storage, or disposal of wastes;
    - (E) liquid storage tanks;
    - (F) processing and storage areas;
    - (G) 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;
    - (H) transfer areas for substances in bulk;
    - (I) machinery; and
    - (J) locations and sources of run-on to your site from adjacent property.
- ii. A description of industrial activities conducted at the site and significant materials stored, used, treated or disposed of in a manner which exposes those activities or materials to stormwater. Include in the description the methods of storage, usage, treatment or disposal.
  - iii. Location and description, with any available characterization data, of areas of known or discovered significant materials from previous operations.
  - iv. Regular business hours of operation.
  - v. For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, a description of the potential pollutant sources that could be present in stormwater discharges and if associated with a co-located SIC code.
  - vi. A description of control measures installed and implemented to meet the technology and water quality based requirements in Schedule A.1 –A.5 and any applicable sector-specific requirements in Schedule E of this permit. Include a description of how the stormwater control measures address potential pollutant sources from industrial activities and significant materials on-site, spills and leaks and authorized non-stormwater discharges.
  - vii. A description of treatment controls or source control, including low impact development, in response to corrective action requirements and operation and maintenance procedures.

- viii. An estimate of the amount of impervious surface area (including paved areas and building roofs) and the total area drained by each stormwater discharge point to be reported in area units.
  - ix. The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality; and
  - x. The identification of each discharge point and the location(s) where stormwater monitoring will occur as required by Schedule B.2. The monitoring location must also be labeled in the SWPCP as “monitoring location.” Existing discharge points excluded from monitoring must include a description of the discharge point(s) and data or analysis supporting that the discharge point(s) are substantially similar as described in Schedule B.2.c.ii of this permit.
- c. Procedures and Schedules -The SWPCP must contain the following information to meet the narrative technology-based effluent limits in Schedule A.1 of this permit:
- i. Spill Prevention and Response - Procedures for preventing and responding to spills and clean-up and notification procedures. Indicate who is responsible for on-site management of significant materials and include their contact information. Spills prevention plans required by other regulations may be substituted for this provision if the spill prevention plan addresses stormwater management concerns and the plan is included with the SWPCP.
    - (1) Indicate how spill response will be coordinated between the permit registrant and otherwise unpermitted tenants. The permit registrant is ultimately responsible for spills of the tenant and appropriate response.
  - ii. Preventative maintenance - Procedures for conducting inspections, maintenance and repairs to prevent leaks, spills, and other releases from drums, tanks and containers exposed to stormwater and the scheduled regular pickup and disposal of waste materials. Include the schedule or frequency for maintaining all control measures and waste collection.
  - iii. Operation and Maintenance Plans - Include an operation and maintenance plan for active treatment systems, such as electro-coagulation, chemical flocculation, or ion-exchange. The O&M plan must include, as appropriate to the type of treatment system, items such as system schematic, manufacturer’s maintenance/operation specifications, chemical use, treatment volumes and a monitoring or inspection plan and frequency. For passive treatment and low impact development control measures, include routine maintenance standards.
  - iv. Employee Education - The elements of the training program must include the requirements in Schedule A.1.j. Include a description of the training content and the required frequency.

## 8. SWPCP Revisions

- a. Permit registrants must prepare SWPCP revisions in compliance with Schedule A.6; and
- b. SWPCP revisions must be submitted if they are made for any of the following reasons:
  - i. Change in site contact(s);
  - ii. In response to a corrective action or inspection;
  - iii. Changes to the site, operations or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate; and
  - iv. Changes to the monitoring locations or discharge points.

- c. If submission of SWPCP revisions is required, permit registrant must submit the revised pages of the SWPCP and site map if applicable, to DEQ or agent no later than 30 calendar days after the completion of modification.
- d. Review of the revisions by DEQ or agent prior to implementation is not required, except revision to location of monitoring locations. The proposed revisions are deemed accepted after 30 calendar days of receipt unless the permit registrant receives a response from DEQ or agent.
- e. DEQ or agent may require the permit registrant to revise the SWPCP at any time. The permit registrant must submit the revisions no later than 30 calendar days from the request date, unless DEQ or agent approved a later date.
- f. SWPCP revisions are not subject to public notice and comment unless revisions are in response to water quality based effluent limit requirements in Schedule A.4 and A.5 of this permit.
- g. For Tier II SWPCP submittal requirements, refer to Schedule A.11.

### **STORMWATER DISCHARGE BENCHMARKS**

#### **9. Benchmarks**

Benchmarks and reference concentrations for impairment pollutants are guideline concentrations, not numeric effluent limits. A benchmark or reference concentration exceedance, therefore, is not a permit violation. Benchmark monitoring assist the permit registrant in determining whether site controls are effectively reducing pollutant concentrations in stormwater discharged from the site.

Permit registrants must monitor for the following applicable benchmarks at all discharge points. See Schedule E of this permit for sector-specific benchmarks that apply to certain industrial sectors and co-located industrial activities.

**Table 4: Statewide Benchmarks**

<b>Parameter</b>	<b>Units</b>	<b>Columbia River</b>	<b>Columbia Slough</b>	<b>Portland Harbor</b>	<b>Regional</b>
Total Copper	mg/L	0.020	0.020	0.020	0.020
Total Lead	mg/L	0.040	0.060	0.040	0.015
Total Zinc	mg/L	0.12	0.24	0.12	0.090
pH	SU	5.5 – 9.0	5.5 – 8.5	5.5 – 9.0	5.5 – 9.0
TSS	mg/L	100	30	30	100
Total Oil & Grease	mg/L	10	10	10	10
E. coli	counts/100 ml	406*	406	406*	406*
BOD5	mg/L	N/A	33	N/A	N/A
Total Phosphorus	mg/L	N/A	0.16	N/A	N/A

\*The benchmark for E. coli applies only to active landfills and sewage treatment plants.

N/A: Not Applicable (no benchmark or required sampling for this parameter)

### **CORRECTIVE ACTIONS FOR IMPAIRMENT POLLUTANT AND BENCHMARK EXCEEDANCES**

#### **10. Tier I Corrective Action Response to Exceedances of Impairment Pollutants and Benchmarks:**

- a. If stormwater monitoring results exceed any of the applicable statewide benchmarks in Schedule A.9 of this permit, sector-specific benchmarks in Schedule E of this permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant must, no later than 30 calendar days after receiving the monitoring results or visual observations show signs of pollution:
  - i. Investigate the cause of the elevated pollutant levels, including conducting, commencing or planning for any needed pollutant source tracing activities. Develop a plan to ensure that known or discovered significant materials from previous operations are controlled, removed or otherwise not exposed.
  - ii. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with this permit and manufacturers' specifications. Evaluate whether any previous removal or pollutant source isolation actions are complete and whether additional removal or modifications to pollutant source isolation are necessary. Evaluate any treatment measures, including if they were properly installed, maintained and implemented and whether maintenance, corrections, or modifications to treatment measures are necessary.
  - iii. If permit registrant determines that additional control measures or other changes are necessary based on corrective action review, revise the SWPCP and submit the revised pages of the SWPCP to DEQ or agent, including a schedule for implementing the control measures.
  - iv. Tier I report - Summarize the following information in a Tier I report:
    - (1) The results of the investigation referred to in condition 10.a.i, above.
    - (2) Corrective actions taken or to be taken, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.
    - (3) Document whether SWPCP revisions are necessary.
- iv. Keep Tier I reports on-site, and submit to DEQ or agent upon request.
- b. Implement corrective actions before the next storm event, if possible, or no later than 30 calendar days after receiving the monitoring results, whichever comes first. If permit registrant fails to complete the corrective action within this time frame, the reasoning should be documented in the Tier 1 Report, and corrective actions must be completed as soon as practicable.
- c. Permit registrants are exempt from the Tier I investigation and reporting requirements for exceedances of benchmark parameter(s) addressed by proposed Tier II corrective action requirements in Schedule A.11. The exemption applies from the end of second monitoring year through the Tier II implementation deadline only. Tier I investigation and reporting must resume once Tier II is implemented.

#### **11. Tier II Corrective Action Response based on second year Geometric Mean Benchmark**

##### **Evaluation:**

- a. Permit registrants must evaluate the sampling results collected during the second monitoring year of permit coverage and determine if the geometric mean of the qualifying samples collected at each monitored discharge point exceeds any applicable statewide benchmarks in Schedule A.9 of this permit. DEQ or agent will identify in the permit assignment letter the registrant's Tier II evaluation year. The permit registrant must report this information in the Discharge Monitoring Report for that monitoring year. Permit registrants are not required to conduct this evaluation for the benchmark parameter(s) for which DEQ or agent has granted a monitoring waiver in accordance with Schedule B.4 of this permit.

- b. For the pH benchmark, Tier II corrective action requirements are triggered if 50 percent or more of qualifying samples during the first two monitoring years of permit coverage are outside of the pH benchmark range.
- c. For permit registrants that received new coverage under a previous industrial stormwater general permit (that is, the 1200-COLS, 1200-COLSB or 1200-Z) on or after July 1, 2016, time spent covered under the previous permit is included in determining the second year of permit coverage and other Tier II deadlines.
- d. The permit registrant must use all qualifying samples to calculate the geometric mean.
- e. If fewer than four qualifying samples were collected during the second monitoring year of permit coverage, qualifying sample results from the previous monitoring year may be used to obtain four consecutive values for the Tier II calculation.
- f. If the geometric mean of the qualifying sampling results for any monitored discharge point exceeds any applicable statewide benchmark in Schedule A.9 of this permit (or if 50 percent or more of any pH sampling results for any monitored discharge point are outside of the pH benchmark range), permit registrant must submit a Tier II report, a Tier II mass reduction waiver request, or a Tier II natural background waiver request, along with associated revisions of the SWPCP, to DEQ or agent no later than December 31 of the third year of permit coverage, unless a later date is approved in writing by DEQ or agent. DEQ or agent will notify permit registrant within 60 calendar days of receipt if the Tier II corrective action response is accepted or denied.
- g. Tier II corrective action(s) or mass reduction action(s) must be installed and implemented no later than June 30 of the fourth monitoring year, unless DEQ or agent approved a later date in writing. If the permit registrant changes the specifics of the corrective actions before implementation, revisions must be submitted and accepted by DEQ or agent before implementation. Corrective action revisions do not change the implementation deadline.
- h. No later than 30 calendar days from implementing all Tier II corrective actions or mass reduction measures, the permit registrant must submit written confirmation to DEQ or agent with the date Tier II corrective action response was implemented in accordance with the revised approved SWPCP.
- i. Properly apply and size approved Tier II corrective action responses and mass reduction measures to all substantially similar discharge points.
- j. Tier II Report
  - i. The Tier II report must include a proposal for active or passive treatment. This may include a combination of source removal, control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of this permit. The report must include the rationale for the selection of the control and treatment measures, the projected reduction of pollutant concentration(s) and the schedule for implementing these measures.
  - ii. An Oregon registered professional engineer (PE) must design and stamp the portion of the SWPCP that addresses these control measures.
  - iii. At discharge points where Tier II has been implemented:
    - (1) Permit registrants must take Tier I corrective actions in accordance with A.10.
    - (2) Monitoring must resume at substantially similar discharge points.
    - (3) Permit registrants may request a monitoring waiver if the geometric mean of four consecutive qualifying samples is equal to or below the benchmark.
- k. Tier II Mass Reduction Waiver



- i. A permit registrant may request a mass reduction waiver from the requirements in Schedule A.11.j above if the permit registrant implements volume reduction measures, such as low impact development practices, that will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the applicable statewide benchmarks in Schedule A.9 of this permit.
  - ii. The mass reduction waiver request and the revised SWPCP must include data and analysis to support the rationale for the mass load reduction selection. Include in the waiver request a description of the measure(s), and a mass load analysis, and expected implementation date(s).
  - iii. An Oregon Professional Engineer (PE) or Oregon certified engineering geologist (CEG) must design and stamp the portion of the SWPCP that addresses the mass reduction measures.
  - iv. At discharge points at which a Tier II mass reduction waiver has been implemented:
    - (1) Permit registrants must take Tier I corrective actions in accordance with A.10.
    - (2) Monitoring must resume at substantially similar discharge points.
    - (3) Permit registrants may request a monitoring waiver if the geometric mean of four consecutive qualifying samples is equal to or below the benchmark.
1. Tier II Natural Background Waiver
- i. A permit registrant may request a natural background waiver from the requirements in Schedule A.11.j above if the benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The Tier II natural background waiver request must include the investigation and analysis used to demonstrate that the exceedances are due only to natural background conditions and data collected by the permit registrant or others (including peer-reviewed literature studies) that describe the levels of natural background pollutants in the discharge.

## 12. Permit Compliance

- a. Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act.
- b. Any corrective actions and time periods specified for remedying noncompliance with the permit do not absolve permit registrants of the initial underlying violations.
- c. Where corrective action is triggered by an event that does not itself constitute a violation, such as a benchmark exceedance, there is no permit violation associated with the trigger event provided that the permit registrant takes the corrective action within the deadlines identified in this permit.
- d. A new permit registrant with a new facility (that begins operation after August 1, 2017) or an existing facility (that was in operation before August 1, 2017, without a stormwater discharge permit) must implement stormwater control measures to meet new technology and water quality based requirements in Schedule A.1 – A.5, including applicable sector-specific requirements in Schedule E of this permit, no later than 90 calendar days of after receiving permit coverage. Control measures that require capital improvements must be completed no later than two years after receiving permit coverage, unless DEQ or agent approved a later date.

## 13. Corrective Action Triggers

The permit contains many types of corrective action triggers: statewide benchmarks, sector-specific benchmarks, numeric effluent limits and impairment reference concentrations. The numeric value of the corrective action trigger for a particular pollutant is often different for

different types of triggers. For a particular facility, multiple corrective action triggers may apply for a particular pollutant. When exceeding multiple applicable corrective action triggers, the permit registrant must follow the corrective actions for each trigger.

## SCHEDULE B

### MONITORING REQUIREMENTS

#### 1. Pollutant Parameters

- a. Benchmarks - Permit registrants must monitor for the applicable statewide benchmark pollutants identified in Schedule A.9 of this permit. Permit registrants must also monitor for benchmarks specified for applicable industrial sector(s) identified in Schedule E, for both primary industrial activity and any co-located industrial activities.
- b. Impairment Pollutants
  - i. Permit registrants that discharge to an impaired water without a TMDL (303(d) list Category 5) for pollutant(s), must monitor for impairment pollutants identified in the permit assignment letter for which a standard analytical method exists (see 40 CFR Part 136). Permit registrants that discharge to an impaired water with a TMDL are not required to monitor for impairment pollutants addressed by the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges have been identified in the permit assignment letter.
  - ii. Before granting coverage under this permit, DEQ or agent will identify in the permit assignment letter the impairment pollutants that the permit registrant is required to monitor and reference concentrations for these pollutants. Reference concentrations reflect the approved acute aquatic life criterion for the pollutant when applicable. If there is not an acute criterion for the pollutant, DEQ or agent will use an applicable chronic criterion. If there is not a chronic criterion for the pollutant, DEQ or agent will use an applicable human health criterion.
    - (1) If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, permit registrants must monitor for Total Suspended Solids (TSS).
    - (2) If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, permit registrants must monitor for that indicator or surrogate pollutant.
    - (3) No monitoring is required when a waterbody's impairment is due to one of the following:
      - (A) Biological communities and no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment; or
      - (B) Temperature, hydrologic modifications, or impaired hydrology.
- c. Numeric Effluent limits pursuant to Federal Effluent Limit Guidelines - Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of this permit at each discharge point containing the discharges from industrial activities identified in the guidelines and report the monitoring results in the Discharge Monitoring Report required by Schedule B.8.
- d. Multiple Requirements - When more than one type of monitoring for the same pollutant at the same discharge point applies, the permit registrant may use a single sample to satisfy both

monitoring requirements. Permit registrant must complete corrective action and reporting requirement for each parameter.

## 2. Sampling Procedures

- a. Grab Sampling
  - i. For each discharge point monitored, collect a single grab sample of stormwater discharge or a series of composite samples.
  - ii. Composite samples may be used as an alternative to grab sampling, except when monitoring for pH, oil and grease and E. coli. Compositing samples must be collected from same storm event. Registrants may not switch between grab sampling to composite sampling during a monitoring year without DEQ or agent approval.
  - iii. Permit registrants may use a single grab sample or composite to satisfy multiple pollutant parameter monitoring requirements (for example, required to monitor for zinc as benchmark and impairment pollutant).
- b. Representative Sample
  - i. Samples must be representative of the discharge.
  - ii. Monitoring locations must be identified in the SWPCP.
  - iii. All samples must be taken at discharge points located before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater, or any other wastestream, body of water or substance, including groundwater unless:
    - (1) DEQ or agent approve in writing; or
    - (2) On-site stormwater flows combine into a common treatment facility (for example, filter or settling pond). In this case, monitor the discharge from the treatment facility.
- c. Multiple Discharges - Each discharge point must be monitored unless:
  - i. Discharge point serves an area without exposure of stormwater to industrial activities; or
  - ii. Discharge point has effluent that is substantially similar to the effluent(s) of a monitored discharge point and the same BMPs are implemented and maintained at the substantially similar discharge points or drainage areas that lead to the discharge points. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. The determination of substantial similarity of effluent(s) must be based on past monitoring data or an analysis supporting that the discharge points are substantially similar. The supporting data or analysis must be included in the SWPCP. This provision does not apply to discharge point(s) covered by a numeric effluent limit.
- d. Timing - Monitor the discharge during the first 12 hours of the discharge event, which is a storm event or snowmelt resulting in an actual discharge from a site. If it is not practicable to collect the sample within this period, collect the sample as soon as practicable and provide documentation with the Discharge Monitoring Report why it was not practicable to take samples within the period. Permit registrant is not required to sample outside of regular business hours of operation or during unsafe conditions.
- e. Sampling for pH - Approved methods for pH sampling require either measuring the pH directly in the flow, or analyzing the sample within 15 minutes of sample collection.
  - i. Obtain accurate pH readings with a properly calibrated pH meter.

- ii. Permit registrant must follow manufacturers’ specifications and keep meter in good working order.
- iii. pH paper may not be used for determining the precise parameters established in this permit.
- f. Monitoring Frequency - Permit registrants must monitor their stormwater discharge according to the frequency described in Table 5 below unless DEQ or agent grant a monitoring waiver in writing or approve a monitoring variance.
  - i. Stormwater samples must be collected at least 14 calendar days apart.
  - ii. Permit registrant may collect more samples than the minimum frequency described below, but must report this additional data in the Discharge Monitoring Report. All qualifying samples must be included to establish a monitoring waiver in Schedule B.4 or to conduct the geometric mean evaluation in Schedule A.11 of this permit.
  - iii. Exceedance of Numeric Effluent Limit in Schedule A.2 of this permit – Permit registrants must conduct follow-up monitoring of any pollutant that exceeds the numeric effluent limit(s) no later than 30 calendar days (or during the next storm event should none occur within 30 calendar days) of receiving the monitoring results. If the follow-up monitoring exceeds the numeric effluent limit, the permit registrant must monitor the discharge four times per year until compliance with the numeric effluent limit is achieved. Once monitoring achieves the effluent limit value, annual frequency may resume.

**Table 5: Monitoring Frequency**

Pollutant Category	Minimum Frequency
Applicable statewide benchmarks in Schedule A.9, and any applicable sector-specific benchmarks in Schedule E	Four times per year Two samples on or before Dec. 31 and two samples on or after Jan. 1.  <i>For example, for the 2017/2018 monitoring year, two samples between July 1 and Dec. 31, 2017; and two samples between Jan. 1 and June 30, 2018.</i>
Impairment Pollutants, if applicable	Two times per year One sample on or before Dec. 31 and one sample on or after Jan. 1.  <i>For example, for the 2017/2018 monitoring year, one sample between July 1 and Dec. 31, 2017; and one sample between Jan. 1 and June 30, 2018.</i>
Numeric Effluent Limits, if applicable	One time per year, unless exceedance occurs

### **3. Monitoring Variance**

- a. Permit registrants may request a monitoring variance for missed samples due to no storm events of sufficient magnitude to produce run-off during regular business hours of operation and safe conditions. For each missed sample, report in the Discharge Monitoring Report that no discharge occurred and provide supporting data and analysis demonstrating why the monitoring did not occur. If DEQ or agent has evidence contradicting the permit registrant's no discharge claim, failure to complete the required monitoring may be a permit violation. Supporting data may include:
  - i. State or federal authorities declared the year a drought year.
  - ii. Demonstration that rainfall in the area where the permit registrant's facility is located was 20 percent or more below the three-year average rainfall for that area.
  - iii. Photo documentation, rain gauge data, detention basin storage volumes, storm infiltration rate or retention capacity.

### **4. Monitoring Waiver for Benchmark and Impairment Pollutant Monitoring**

- a. A monitoring waiver may be requested from DEQ or agent in the following circumstances:
  - i. When the benchmark or impairment reference concentration has been achieved, as demonstrated by:
    - (1) The geometric mean of four consecutive qualifying samples is equal to or below the impairment reference concentration, applicable statewide or sector-specific benchmarks.
    - (2) pH results are within the range for four consecutive qualifying readings.
    - (3) For Tier II parameters and discharge points once the corrective action has been implemented, and the geometric mean of four consecutive qualifying samples is equal to or below the applicable statewide benchmark, or pH results are within the range for four consecutive readings.
  - ii. If the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site. Permit registrant may submit a natural background waiver report to DEQ or agent that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the permit registrant or others (including peer-review literature studies) that describe the levels of natural background pollutants in the discharge.
  - iii. If a facility is inactive and unstaffed and no industrial materials or activities are exposed to stormwater, the permit registrant is not required to conduct monitoring for the remainder of the permit term.
    - (1) Permit registrant must provide documentation with the Discharge Monitoring Report indicating 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)(4)(iii).
    - (2) Sign and certify the statement in accordance with D8 in Schedule F of this permit.
- b. The permit registrant's request must include documentation to support the request. Monitoring waivers may be allowed for individual parameters and separate discharge points.
- c. If the facility has triggered Tier II during this permit term, permit registrants are ineligible for monitoring waivers at all discharge points and parameters that exceeded the geometric mean in

Schedule A.11. The ineligibility applies to the end of second monitoring year through Tier II implementation date.

- d. DEQ or agent will notify the permit registrant in writing if a monitoring waiver is approved or denied. Until written approval of the monitoring waiver is received, the permit registrant must continue monitoring.
- e. Monitoring waivers are valid for the remainder of the permit term. Upon renewal into a subsequent permit, permit registrants must reinstate all monitoring, and re-establish the basis for all monitoring waivers.
- f. There is no reduction in monitoring allowed for:
  - i. Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.iii of this permit.
  - ii. Monitoring for federal numeric effluent limit guidelines.
- g. Reinstatement of Monitoring
  - i. It is the responsibility of the permit registrant to reinstate discharge monitoring under the following circumstances or if notified by DEQ or agent:
    - (1) Prior monitoring used to establish the monitoring waiver was improper or sampling results were incorrect;
    - (2) Changes to site conditions are likely to affect stormwater discharge characteristics, such as change in SIC code, process change or increased pollutants sources exposed to stormwater;
    - (3) Additional monitoring occurs and the sampling results exceed benchmark(s) or impairment reference concentration(s); or
    - (4) For inactive or unstaffed sites, the facility becomes active or staffed, or industrial materials or activities become exposed to stormwater.
- h. Revocation of Monitoring Waiver  
DEQ or agent may revoke the monitoring waiver based on any of the above conditions or in response to an inspection or corrective action. In this event, DEQ or agent will notify the permit registrant in writing that the monitoring waiver is revoked.

**5. Additional Monitoring-** DEQ may notify permit registrants in writing of additional discharge monitoring requirements. Any such notice will state the reasons for the monitoring, locations and pollutants to be monitored, frequency and period of monitoring, sample types and reporting requirements.

**6. For new permit registrants discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15), North Santiam River or North Fork Smith River subbasin** under OAR 340-041-0350 (For potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a NPDES stormwater discharge permit but request an increased load limitation.)

- a. No later than 180 calendar days after obtaining permit coverage, permit registrant must submit to DEQ a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0350.
- b. No later than 30 calendar days from DEQ approval, the permit registrant must implement the monitoring and water quality evaluation program.

## INSPECTIONS

### 7. Permit registrant must meet the following monthly inspection requirements:

- a. Inspect areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located. Inspections must include all discharge points and the following areas:
  - i. Industrial materials, residue, or trash that may have or could come into contact with stormwater;
  - ii. Leaks or spills from industrial equipment, drums, tanks, and other containers;
  - iii. Offsite and internal tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
  - iv. Tracking or blowing of raw, final, or waste materials that results in exposure of stormwater falling on the site;
  - v. Evidence of, or the potential for, pollutants entering the drainage system;
  - vi. Evidence of pollutants discharging to receiving waters at all discharge point(s);
  - vii. Visual observation for the presence of floating, suspended or settleable solids, color, odor, foam, visible oil sheen, or other obvious indicators of pollution in the stormwater discharge at all discharge point(s), including discharge points that have been authorized to be substantially similar in accordance with Schedule B.2.c.ii; and
  - viii. Stormwater control measures, including treatment, to ensure they are functioning properly.
- b. Conduct all inspections by personnel that have completed employee training and are familiar with aspects of the SWPCP.
- c. Conduct and document visual inspections at the site on a monthly basis when the facility is in operation. Visual observations above must be conducted during a discharge event if one occurs during the month, regardless whether the monthly site inspection has already occurred.
- d. For exceptionally large facilities where monthly inspections of all areas or visual observation at all substantially similar discharge points are infeasible, DEQ or agent may approve in writing a modified inspection frequency.
- e. Conduct visual observations during regular business hours of operation and safe conditions.
- f. Document the following in an inspection report that is retained on-site and submitted to DEQ or agent upon request:
  - i. The inspection date and time;
  - ii. The name(s) of inspector(s);
  - iii. Control measures and treatment facilities needing cleaning, replacement, maintenance, reconditioning or repair;
  - iv. The condition of the drainage and conveyance system and need for maintenance;
  - v. Previously unidentified sources of pollutants;
  - vi. Stormwater discharge visual observations, a Tier I report is required if visual observation shows evidence of stormwater pollution as indicated condition Schedule B.7.a.vii.;
  - vii. Nature of the discharge; whether snow or rain; and
  - viii. Any corrective action, source control or maintenance taken or scheduled to remedy problems found.

## REPORTING AND RECORDKEEPING REQUIREMENTS

### 8. Reporting Monitoring Data

- a. Paper Submissions
  - i. Permit registrant must submit all monitoring results required in this permit via DEQ-approved Discharge Monitoring Report forms until directed by DEQ to do otherwise.
    - (1) The permit registrant must submit a Discharge Monitoring Report to DEQ or agent no later than July 31 of each year. Report the sampling results for the previous monitoring year and include the laboratory results from the testing laboratory, including minimum detection level, Quality Assurance/Quality Control and analytical methods for the parameters analyzed.
    - (2) Submit pH field notes and chain of custody.
    - (3) Report non-detections as directed by DEQ. In calculating the geometric mean, use one-half of the detection level for non-detections.
    - (4) Report all sample results from discharge points.
    - (5) The permit registrant must sign and certify submittals of Discharge Monitoring Reports, any additional reports, and other information in accordance with the requirements of Section D8 within Schedule F of this permit.
- b. Electronic Submission
  - i. Permit registrant must submit the sampling and analysis results and other required information of Schedule B in an electronic format to the initial recipient as specified below or as directed otherwise by DEQ as the NPDES regulatory authority in Oregon according to 40 CFR 127.
  - ii. When directed by DEQ, the permit registrant must submit monitoring results and other information required by this permit on DEQ-approved web-based Discharge Monitoring Report forms including pre-approved attachments.
  - iii. The permit registrant must report monitoring requirements listed in Schedule B of this permit via NetDMR when directed by DEQ. Submit laboratory results from the testing laboratory and other required reporting not entered on the NetDMR form via NetDMR as a separate attachment.
    - (1) The permit registrant must submit a Discharge Monitoring Report to DEQ or agent no later than July 31 of each year. Report the sampling results for the previous monitoring year and include the laboratory results from the testing laboratory, including minimum detection level, QA/QC and analytical methods for the parameters analyzed.
    - (2) Submit pH field notes and chain of custody.
    - (3) Report non-detections as directed by DEQ. In calculating the geometric mean, use one-half of the detection level for non-detections.
    - (4) Report all sample results from discharge points.
    - (5) The permit registrant must sign and certify submittals of Discharge Monitoring Reports, any additional reports, and other information in accordance with the requirements of Section D8 within Schedule F of this permit.
  - iv. In accordance with 40 CFR 122.41(1)(9), DEQ will identify the initial recipient that is the designated entity for receiving electronic NPDES data. Until further notice from DEQ, EPA is the initial recipient to receive electronic submissions, and the permit registrant will use EPA's NetDMR for electronic reporting of Discharge Monitoring Report information. DEQ



will notify the permit registrant in advance of changes to the initial recipient status and use of another electronic reporting system other than NetDMR.

- 9. Exceedance Report for Numeric Effluent Limits** - If follow-up monitoring pursuant to Schedule B.2.f.iii of this permit exceeds a numeric effluent limit, permit registrant must submit an Exceedance Report to DEQ or agent no later than 30 calendar days after receiving the monitoring results. The report must include the monitoring data from this monitoring event and the preceding monitoring event(s), an explanation of the situation, and what the permit registrant has done to correct the violation or intends to do if the corrective actions are not complete.
- 10. Record Keeping Procedures** -Permit registrant must record and maintain at the facility the following information. All records must be retained by the permit registrant for at least three years and made available to DEQ, agent or local municipality upon request.
- a. A copy of the SWPCP and any revisions, including revised stamped SWPCP from Tier II corrective action;
  - b. A copy of this permit;
  - c. Permit assignment letter and coverage documents from DEQ for the current permit term;
  - d. Documentation of maintenance and repairs of control measures and treatment systems;
  - e. Tier I reports;
  - f. All inspection reports;
  - g. Documentation of any benchmark exceedance and corrective action taken;
  - h. All copies of any reports or corrective action submitted to DEQ or agent;
  - i. Spills or leaks of significant materials (See Schedule D.3, Definitions) that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature;
  - j. 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;
  - k. Discharge Monitoring Reports, laboratory reports and field sampling notes; and
  - l. Employee education materials and records of training.

**11. Summary of reporting requirements and submittal date.**

**Table 6: Reporting**

<b>Permit Condition</b>	<b>Permit Schedule</b>	<b>Report Required</b>	<b>Due Date</b>
Must not cause or contribute to a violation of instream water quality standard	Schedule A.4	Water Quality Standards Corrective Action Report	No later than 30 calendar days after receiving monitoring results
SWPCP submission	Schedule A.8	SWPCP revision	No later than 30 calendar days after the completion of modification
Sample results exceed applicable statewide or sector-specific benchmarks or reference concentrations	Schedule A.10	Tier I Report*	No later than 30 calendar days after receiving monitoring results; Retain on-site and submit upon request
Second year geometric mean exceeds benchmarks	Schedule A.11	Tier II Report	No later than December 31 of third monitoring year of coverage
		Tier II Mass Reduction Waiver	
		Tier II Natural Background Waiver	
Written confirmation of Tier II implementation	Schedule A.11	Email or letter confirming Tier II proposal installation	No later than 30 calendar days of implementation
Sample results continue to exceed benchmark for Tier II parameters post implementation	Schedule A.11.j.iii	Tier I Report*	No later than 30 calendar days after receiving monitoring results; Retain on-site and submit upon request
Sample results exceed numeric effluent limits	Schedule B.9	Exceedance Report	No later than 30 calendar days after receiving monitoring results
Submission of monitoring results	Schedule B.8	Discharge Monitoring Report	No later than July 31 annually

\*Do not submit Tier I report unless requested by DEQ or agent

## SCHEDULE D

### SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.
2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan and stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.
3. **Definitions**

For the purpose of this permit:

  - a. Arid areas means portion of the state where annual precipitation averages range from 0 to 10 inches.
  - b. Capital Improvements means the following improvements that require capital expenditures:
    - i. Removal or permanent isolation from exposure to stormwater of significant materials left from previous activities on the site.
    - ii. Treatment best management practices including to settling basins, oil/water separation equipment, grassy swales, detention/retention basins, and media filtration devices.
    - iii. Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
    - iv. Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
    - v. Roofs and appropriate covers for manufacturing areas.
    - vi. Volume reduction measures, including low impact development control measures.
  - c. Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "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.
  - d. Co-located Industrial Activities means any industrial activities, excluding the primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i - ix, xi) and identified in Table 1: Sources Covered of the permit. 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 in Table 1.
  - e. Columbia Slough means the waterway in northern Multnomah County flowing roughly parallel to the Columbia River between Fairview Lake and the Willamette River. *Confirm discharges to Columbia Slough by contacting the cities of Portland or Gresham.*
  - f. Control Measure means any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.
  - g. Discharge Point means the location where collected and concentrated stormwater flows discharge from the facility such that the first receiving waterbody into which the discharge flows, either directly or through a separate storm sewer system, is a water of the U.S.

- h. Existing Discharger means an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.
- i. Feasible means technologically possible and economically practicable and achievable in light of best industry practices.
- j. Hazardous Substances is defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.
- k. High Quality Waters means those waters that meet or exceed levels that are necessary to support the propagation of fish, shellfish, and wildlife; recreation in and on the water; and other designated beneficial. Waters identified on the 303(d) (Category 5) list as not meeting applicable state water quality standards for a given pollutant are not high quality waters.
- l. Impaired Waters means those waters identified by a State or EPA pursuant to Section 303(d) (Category 5) of the Clean Water Act as not meeting applicable State water quality standards for one or more pollutants. This may include both waters with approved TMDLs (Category 4), and those for which a TMDL has not yet been approved.
- m. Industrial Activity means the 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) or activities identified by DEQ as a significant contributor of pollutants, such as Table 2.
- n. Industrial Stormwater means stormwater discharge associated with industrial activity (40 CFR 122.26(b)(14)).
- o. Material Handling Activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.
- p. Minimize means reduce or eliminate, or both, 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.
- q. Monitoring year is from July 1 of one year to June 30 of the following year (for example, the 2017/2018 monitoring year is from July 1, 2017, through June 30, 2018).
- r. Natural background pollutants include substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring.
- s. New Discharger means a facility from which there is or may be a discharge, that did not commence the discharge of pollutants 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.
- t. New Source means 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.
- u. No Exposure means 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).
- v. Operator means 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 this permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by this permit).
- w. Outstanding Resource Waters means those waters designated by the Environmental Quality Commission where existing high quality waters constitute an outstanding state or national resource based on their extraordinary water quality or ecological values or where special water quality protection is needed to maintain critical habitat areas.
- x. Permit Assignment Letter means a document sent by DEQ when coverage is granted or renewed that establishes registrant's monitoring year, sampling requirements, pollutant concentrations and monitoring frequency based on applicants' site information. Monitoring parameters include applicable statewide, sector-specific (primary and co-located), impairment and effluent limits. This document may contain additional site-specific requirements.
- y. Portland Harbor means the study area of EPA's Portland Harbor Superfund site located in the Lower Willamette River from approximately river mile 1.9 to 11.8.
- z. Primary industrial activity means any activities performed on-site that 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). 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.
- aa. Qualifying samples are samples that are collected at least 14 calendar days apart, are analyzed using approved methods (see Schedule F), and satisfy the Quality Assurance/Quality Control requirements of the method.
- bb. Regular business hours of operation means those time frames when the facility is engaged in its primary production process, with personnel that have completed the required SWPCP training.
- cc. Run-on sources of stormwater means stormwater that drains from land located upslope or upstream from the regulated facility.
- dd. Semi-arid areas means where annual rainfall averages range from 10 to 20 inches.
- ee. 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 that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.
- ff. Stormwater means stormwater runoff, snow melt runoff and surface runoff drainage. See 40 CFR 122.26(b)(13).
- gg. Stormwater associated with industrial activity (40 CFR 122.26(b)(14)), means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to:
- i. Industrial plant yards;

- ii. 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;
- iii. Material handling sites (Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.);
- iv. Refuse sites;
- v. Sites used for the application or disposal of process waste waters (as defined in 40 CFR part401);
- vi. Sites used for storage or maintenance of material handling equipment;
- vii. Sites used for residual treatment, storage, or disposal; shipping and receiving areas;
- viii. Manufacturing buildings;
- ix. Storage areas (including tank farms) for raw materials, and intermediate and finished products;
- x. Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. Significant materials include, but are not limited to: raw materials storage; 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 that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges; or
- xi. Stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.
- xii. 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.
- hh. Stormwater Conveyance means a sewer, ditch, or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.
- ii. Total Maximum Daily Load (TMDL) is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and background. See OAR 340-041-0002(65) and OAR 340-042-0030(15).
- jj. Treatment Measures mean Best Management Practices that are intended to remove pollutants from stormwater. These measures include: settling basins, oil/water separation equipment, detention/retention basins, media filtration devices, electrocoagulation, constructed wetlands and bioswales.
- kk. Wasteload Allocation (WLA) means the portion of receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation. See OAR 340-041-0002(67).

#### **4. Local Public Agencies Acting as DEQ's Agent**

DEQ has authorized certain local governments and special districts to act as its agent in implementing portions of this permit. The agent conducts the following activities, including: application and SWPCP review, inspections, monitoring data review, stormwater and wastewater monitoring, and verification and approval of no-exposure certifications. Where DEQ has entered into such an agreement, DEQ or agent

will notify the permit registrant of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit.

**5. Terminating Permit Coverage**

- a. Registrants must meet one or more of the following conditions:
  - i. Cease all industrial operations and stormwater discharge associated with industrial activity as defined in 40 CFR 122.26(b)(14);
  - ii. Obtain NPDES coverage under an individual permit;
  - iii. A new owner or operator legally acquires responsibility of property or industrial activity;
  - iv. Conditions for termination under sector G and H have been met.
- b. To terminate permit coverage, registrants must:
  - i. Complete and submit a Notice of Termination to DEQ or agent for approval.
  - ii. Resolve all outstanding compliance issues.
- c. Until termination has been approved by DEQ, permit registrants must comply with all permit conditions.

**SCHEDULE E  
 SECTOR-SPECIFIC REQUIREMENTS**

1. Permit registrants must meet the sector-specific requirements in Schedule E associated with their primary industrial activity and any co-located industrial activities, as defined in Schedule D of this permit. The sector-specific requirements apply to the areas of the facility where the sector-specific activities occur.
2. These sector-specific requirements in Schedule E are in addition to the requirements in Schedule A and B of this permit.
3. Samples may qualify for one or more monitoring requirement; however, corrective action is based on each exceedance.
4. Table E-1 below identifies SIC codes and activities descriptions that are required to meet the sector-specific requirements in Schedule E of the permit.

**Table E-1. Sectors of Industrial Activity with Description**

SIC Code or Activity Code	Activity Represented
<b>SECTOR A: TIMBER PRODUCTS</b>	
2421	General Sawmills and Planing Mills
2411	Logging
2426	Hardwood Dimension and Flooring Mills
2429	Special Product Sawmills, Not Elsewhere Classified
2431-2439 (except 2434, see Sector W)	Millwork, Veneer, Plywood, and Structural Wood
2448	Wood Pallets and Skids
2449	Wood Containers, Not Elsewhere Classified
2451, 2452	Wood Buildings and Mobile Homes
2491	Wood Preserving
2493	Reconstituted Wood Products
2499	Wood Products, Not Elsewhere Classified
2441	Nailed and Lock Corner Wood Boxes and Shook
<b>SECTOR B: PAPER AND ALLIED PRODUCTS</b>	
2631	Paperboard Mills
2611	Pulp Mills
2621	Paper Mills
2652-2657	Paperboard Containers and Boxes
2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes



**Table E-1. Sectors of Industrial Activity with Description**

SIC Code or Activity Code	Activity Represented
<b>SECTOR C: CHEMICALS AND ALLIED PRODUCTS MANUFACTURING AND REFINING</b>	
2873-2879 (excluding 2874)	Agricultural Chemicals
2812-2819	Industrial Inorganic Chemicals
2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
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
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
<b>SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS Asphalt Paving Mixtures and Blocks, Primary SIC code 2951, Covered by 1200-A General Permit</b>	
2951 (co-located SIC code only), 2952	Asphalt Paving and Roofing Materials
2992, 2999	Miscellaneous Products of Petroleum and Coal
<b>SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS Ready-Mixed Concrete, Primary SIC code 3273, Covered by 1200-A General Permit</b>	
3251-3259	Structural Clay Products
3261-3269	Pottery and Related Products
3271-3275 (3273 co-located SIC code only)	Concrete, Gypsum and Plaster Products
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
<b>SECTOR F: PRIMARY METALS</b>	
3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
3321-3325	Iron and Steel Foundries

**Table E-1. Sectors of Industrial Activity with Description**

SIC Code or Activity Code	Activity Represented
3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
3363-3369	Nonferrous Foundries (Castings)
3331-3339	Primary Smelting and Refining of Nonferrous Metals
3341	Secondary Smelting and Refining of Nonferrous Metals
3398, 3399	Miscellaneous Primary Metal Products
<b>SECTOR G: METAL MINING (ORE MINING AND DRESSING)</b>	
1021	Copper Ore and Mining Dressing Facilities
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
<b>SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES</b>	
1221-1241	Coal Mines and Coal Mining-Related Facilities
<b>SECTOR I: OIL AND GAS EXTRACTION AND REFINING</b>	
1311	Crude Petroleum and Natural Gas
1321	Natural Gas Liquids
1381-1389	Oil and Gas Field Services
<b>SECTOR J: MINERAL MINING AND DRESSING- Discharges Covered by 1200-A General Permit</b>	
<b>SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES</b>	
HZ	<p>Hazardous Waste Treatment, Storage, or Disposal Facilities:</p> <ul style="list-style-type: none"> <li>• Hazardous waste storage</li> <li>• Hazardous waste disposal</li> <li>• Hazardous waste facilities operating under interim status</li> <li>• Hazardous waste facilities operating under a permit under Subtitle C of RCRA</li> </ul> <p>HZ is the Activity Code for this Sector. It potentially applies to any facility regardless of SIC, in addition to these specifically related to hazardous waste:</p> <ul style="list-style-type: none"> <li>• SIC 4953 Refuse Systems (hazardous waste treatment and disposal)</li> </ul>
<b>SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS</b>	
LF	All Landfill, Land Application Sites and Open Dumps

**Table E-1. Sectors of Industrial Activity with Description**

SIC Code or Activity Code	Activity Represented
LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
<b>SECTOR M: MOTOR VEHICLE PARTS, USED</b>	
5015	Automobile Salvage Yards
<b>SECTOR N: SCRAP AND WASTE MATERIALS</b>	
5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
5093	Source-separated Recycling Facility
<b>SECTOR O: STEAM ELECTRIC GENERATING FACILITIES</b>	
SE	<p>Steam Electric Generating Facilities, including coal handling sites:</p> <ul style="list-style-type: none"> <li>• steam electric power generation using coal, including coal handling areas</li> <li>• steam electric power generation using natural gas</li> <li>• steam electric power generation using oil</li> <li>• steam electric power generation using nuclear energy</li> <li>• steam electric power generation using any other fuel to produce a steam source</li> <li>• coal pile runoff (includes effluent limitations established by 40 CFR 423)</li> <li>• dual fuel co-generation (i.e., steam generation using fossil fuel to augment a heat-capture generation system)</li> </ul> <p>SE is the Activity Code for this Sector. It may apply to any facility SIC Code, in addition to these specifically related to steam electric generation:</p> <ul style="list-style-type: none"> <li>• SIC 4911 Electric Services (fossil fuel power generation, nuclear electric power generation &amp; other electric power generation)</li> </ul>
<b>SECTOR P: LAND TRANSPORTATION AND WAREHOUSING</b>	
4011, 4013	Railroad Transportation
4111-4173	Local and Highway Passenger Transportation
4212-4215	Trucking and Courier Services, Except Air
4226, 4231	Special Warehousing and Storage, Not Otherwise Classified, Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation
4311	United States Postal Service
5171	Petroleum Bulk Stations and Terminals
<b>SECTOR Q: WATER TRANSPORTATION</b>	

**Table E-1. Sectors of Industrial Activity with Description**

SIC Code or Activity Code	Activity Represented
4412-4499	Water Transportation Facilities
<b>SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS</b>	
3731, 3732	Ship and Boat Building or Repairing Yards
<b>SECTOR S: AIR TRANSPORTATION FACILITIES</b>	
4512-4581	Air Transportation Facilities
<b>SECTOR T: TREATMENT WORKS</b>	
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.
<b>SECTOR U: FOOD AND KINDRED PRODUCTS</b>	
2041-2048	Grain Mill Products
2074-2079	Fats and Oils Products
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
<b>SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS</b>	
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)
<b>SECTOR W: FURNITURE AND FIXTURES</b>	
2434	Wood Kitchen Cabinet and countertop Manufacturing
2511-2519	Household Furniture

**Table E-1. Sectors of Industrial Activity with Description**

<b>SIC Code or Activity Code</b>	<b>Activity Represented</b>
2521, 2522	Office Furniture
2531	Public Building and Related Furniture
2541, 2542	Partitions, Shelving, Lockers, and Office and Store Fixtures
2591, 2599	Miscellaneous Furniture and Fixtures
<b>SECTOR X: PRINTING AND PUBLISHING</b>	
2711-2796	Printing, Publishing, and Allied Industries
<b>SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES</b>	
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
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
<b>SECTOR Z: LEATHER TANNING AND FINISHING</b>	
3111	Leather Tanning and Finishing
<b>SECTOR AA: FABRICATED METAL PRODUCTS</b>	
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
3479	Fabricated Metal Coating and Engraving
<b>SECTOR AB: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMENRCIAL MACHINERY</b>	
3511-3537	Engines and Turbines, Farm and Garden Machinery and Equipment, Construction, Mining and Materials Handling Machinery and Equipment
3541-3549	Metalworking Machinery and Equipment
3552-3559	Special Industry Machinery, Except Metalworking Machinery
3561-3569	General Industrial Machinery and Equipment

**Table E-1. Sectors of Industrial Activity with Description**

<b>SIC Code or Activity Code</b>	<b>Activity Represented</b>
3581-3599	Refrigeration and Service Industry Machinery, Miscellaneous Industrial and Commercial Machinery and Equipment
3711-3716	Motor Vehicles and Motor Vehicle Equipment
3721-3751	Aircraft and Parts, Ship and Boat Building and Repairing, Railroad Equipment, Motorcycles, Bicycles and Parts
3761-3799	Guided Missiles and Space Vehicles and Parts, Miscellaneous Transportation Equipment
<b>SECTOR AC: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC AND OPTICAL GOODS</b> <i>No Sector-specific requirements</i>	
3571-3579	Computer and Office Equipment
3612-3699	Electronic and Other Electrical Equipment and Components, Except Computer Equipment
3812-3829	Measuring, Analyzing, Optical and Controlling Instruments
3841-3861	Photographic, Medical and Optical Goods
3873	Watches and Clocks

**Sector A – Timber Products.**  
**Additional Technology-Based Effluent Limits**

E.A.1 *Good Housekeeping.* 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.

**E.A.2 Additional SWPCP Requirements**

E.A.2.1 *Drainage Area Site Map.* Document in your SWPCP 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.

E.A.2.2 *Inventory of Exposed Materials.* 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 SWPCP 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.

E.A.2.3 *Description of Stormwater Management Controls.* 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.

**E.A.3 Additional Inspection Requirements.**

E.A.3.1. If your facility is a wood preserving facility under SIC 2491, 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.

**E.A.4 Sector-Specific Benchmarks**

Table E.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 E.A-1**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
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

Wood Preserving (SIC 2491)	Total Arsenic	0.15 mg/L
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**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector B – Paper and Allied Products**

**E.B.1 Sector-Specific Benchmarks**

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

**Table E.B-1.**

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

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector C – Chemical and Allied Products Manufacturing, and Refining**

**E.C.1 Sector-Specific Benchmarks**

Table E.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 E.C-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Agricultural Chemicals (SIC 2873-2879, excluding 2874)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Iron	1.0 mg/L
	Phosphorus	2.0 mg/L
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
Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector D – Asphalt Paving and Roofing Materials and Lubricants**

**E.D.1 Limitation of Coverage**

Asphalt Paving Mixtures and Blocks, Primary SIC code 2951, must apply for coverage under the 1200-A General Permit.

**E.D.2 Effluent Limitations Based on Effluent Limitations Guidelines**

Table E.D-1 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 E.D-1<sup>1</sup>**

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from asphalt emulsion facilities. <b>Co-located SIC code only.</b>	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.

<sup>1</sup>Monitor annually.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products**

**E.E.1 Limitations of coverage**

Ready-Mixed Concrete, primary SIC code 3273, must apply for coverage under the 1200-A General Permit.

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

E.E.2.1 *Good Housekeeping Measures.* 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 SWPCP 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.

**E.E.3 Additional SWPCP Requirements**

- E.E.3.1 *Drainage Area Site Map.* Document in the SWPCP 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.
- E.E.3.1 *Discharge Testing.* For facilities producing ready-mix concrete, concrete block, brick, or similar products, include in the non-stormwater discharge testing a description of measures that ensure that process wastewaters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with NPDES wastewater permit requirements or are recycled.

**E.E.4 Sector-Specific Benchmarks**

Table E.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 E.E-1.**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
Concrete and Gypsum Manufacturers (SIC 3271-3275) <b>3273: co-located SIC code only.</b>	Total Iron	1.0 mg/L

**E.E.5 Effluent Limitations Based on Effluent Limitations Guidelines**

Table E.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 E.E-2<sup>1</sup>**

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from material storage piles at cement manufacturing facilities(3241)	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 - 9.0 s.u.

<sup>1</sup>Monitor annually.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector F – Primary Metal**

**E.F.1 Additional Technology-Based Effluent Limits**

E.F.1.1 *Good Housekeeping Measures.* 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.

**E.F.2 Additional SWPCP Requirements**

E.F.2.1 *Drainage Area Site Map.* Identify in the SWPCP 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.

E.F.2.2 *Inventory of Exposed Material.* 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.

**E.F.3 Additional Inspection Requirements**

As part of conducting your monthly inspections 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.

**E.F.4 Sector-Specific Benchmarks**

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

**Table E.F-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Cutoff Concentration</b>
Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

## **Schedule E – Sector-Specific Requirements for Industrial Activity**

### **Sector G – Metal Mining**

#### **E.G.1 Covered Stormwater Discharges**

The requirements in Sector 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 types of industrial sources required to obtain coverage, Table 1. 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.

E.G.1.1 *Covered Discharges from Inactive Facilities.* All stormwater discharges.

E.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 combined 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;
- Partially or inadequately reclaimed areas or areas not released from reclamation requirements.

E.G.1.3 *Covered Discharges from Earth-Disturbing Activities Conducted Prior to Active Mining Activities.* All stormwater discharges.

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



## **E.G.2 Limitations on Coverage**

E.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. Operators bear the initial responsibility for determining if they are eligible for coverage under this permit, or must seek coverage under another NPDES permit.

E.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.

## **E.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).

E.G.3.1 *Mining operation* – For this permit, mining operations are grouped into two distinct categories, with distinct technology based effluent limits and requirements applicable to each: a) earth-disturbing activities conducted prior to active mining activities); and b) active mining activities, which includes reclamation. "Mining operations" can occur at both inactive mining facilities and temporarily inactive mining facilities.

E.G.3.2 *Earth-disturbing activities conducted prior to active mining activities* – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:

a. activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and

b. construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads. Earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are considered to be "construction" and have additional technology based effluent limits in E.G.4.2.

E.G.3.3 *Active mining activities* – Activities related to the extraction, removal or recovery, and beneficiation of metal ore from the earth; removal of overburden and waste rock to expose mineable minerals; and site reclamation and closure activities. All such activities occur within the "active mining area." Reclamation involves activities undertaken, in compliance with applicable mined land reclamation requirements, to return the land to an appropriate post-mining contour and land use in order to meet applicable federal and state reclamation requirements. In addition, once earth-disturbing activities conducted prior to active mining activities have ceased and all related requirements in E.G.4 have been met, and a well-

delineated “active mining area” has been established, all activities (including any clearing, grading, and excavation) that occur within the active mining area are “active mining activities.”

E.G.3.4 *Active mining area* – A place where work or other activity related to the extraction, removal or recovery of metal ore is being conducted, except, with respect to surface mines, any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun.

Note: Earth-disturbing activities described in the definition in E.G.3.2 that occur on areas outside the active mining area (e.g., for expansion of the mine into undeveloped territory) are considered “earth-disturbing conducted prior to active mining activities”, and must comply with the requirements in E.G.4

E.G.3.5 *Inactive metal mining facility* – A site or portion of a site where metal mining and/or milling occurred in the past but there are no active mining activities occurring 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.

E.G.3.6 *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.

#### **E.G.4 Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities**

Stormwater discharges from earth-disturbing activities conducted prior to active mining activities (defined in E.G.3.3) are covered under this permit. For such earth-disturbing activities, permit registrants do not need to comply the technology-based effluent limits or Schedule B, monitoring or inspection frequency in Schedule B or E.G.5, E.G.7 or E.G.8.

Authorized discharges from areas where earth-disturbing activities have ceased and stabilization as specified in E.G.4.1.9 or E.G.4.2.11, where appropriate, has been completed (stabilization is not required for areas where active mining activities will occur), are no longer subject to E.G.4 requirements. At such time, authorized discharges become subject to all other applicable requirements in the permit, including not need to comply the technology-based effluent limits or Schedule B, monitoring or inspection frequency in Schedule B and Sector E.G.5, E.G.7 and E.G.8.

**E.G.4.1 *Technology-Based Effluent Limits Applicable to All Earth-Disturbing Activities Conducted Prior to Active Mining Activities.*** The following technology-based effluent limits apply to authorized discharges from all earth-disturbing activities conducted prior to active mining activities defined in E.G.3. These limits supersede the technology-based limits listed in Schedule A.

E.G.4.1.1 *Erosion and sediment control installation requirements.*

- By the time construction activities commence, install and make operational downgradient sediment controls, unless this timeframe is infeasible. If infeasible you must install and make such controls operational as soon as practicable or as soon as site conditions permit.
- All other stormwater controls described in the SWPCP must be installed and made operational as soon as conditions on each portion of the site allows.

E.G.4.1.2 *Erosion and sediment control maintenance requirements.* You must:

- Ensure that all erosion and sediment controls remain in effective operating condition.
- Wherever you determine that a stormwater control needs maintenance to continue operating effectively, initiate efforts to fix the problem immediately after its discovery, and complete such work by the end of the next work day.
- When a stormwater control must be replaced or significantly repaired, complete the work within 7 days, unless infeasible. If 7 days is infeasible, you must complete the installation or repair as soon practicable.

E.G.4.1.3 *Perimeter controls.* You must:

- Install sediment controls along those perimeter areas of your disturbed area that will receive stormwater, except where site conditions prevent the use of such controls (in which case, maximize their installation to the extent practicable).
- Remove sediment before it accumulates to one-half of the above-ground height of any perimeter control.

E.G.4.1.4 *Sediment track-out.* For construction vehicles and equipment exiting the site directly onto paved roads, you must:

- Install sediment controls along those perimeter areas of your disturbed area that will receive stormwater, except where site conditions prevent the use of such controls (in which case, maximize their installation to the extent practicable).
- Remove sediment before it accumulates to one-half of the above-ground height of any perimeter control.
- Note: DEQ recognizes that some fine grains may remain visible on the surfaces of off-site streets, other paved areas, and sidewalks even after you have implemented sediment removal practices. Such “staining” is not a violation of E.G.4.1.4.

E.G.4.1.5 *Soil or sediment stockpiles.* You must:

- Minimize erosion of stockpiles from stormwater and wind via temporary cover, if feasible.
- Prevent up-slope stormwater flows from causing erosion of stockpiles (e.g., by diverting flows around the stockpile).
- Minimize sediment from stormwater that runs off of stockpiles, using sediment controls (e.g., a sediment barrier or downslope sediment control).

E.G.4.1.6 *Sediment basins.* If you intend to install a sediment basin to treat stormwater from your earth-disturbing activities, you must:

- Provide storage for either (1) the 2-year, 24-hour storm, or (2) 3,600 cubic feet per acre drained.
- Prevent erosion of (1) basin embankments using stabilization controls (e.g., erosion control blankets), and (2) the inlet and outlet points of the basin using erosion controls and velocity dissipation devices.

E.G.4.1.7 *Minimize dust.* You must minimize the generation of dust through the appropriate application of water or other dust suppression techniques that minimize pollutants being discharged into surface waters.

E.G.4.1.8 *Restrictions on use of treatment chemicals.* If you intend to use sediment treatment chemicals at your site, you are subject to the following minimum requirements:

- Use conventional erosion and sediment controls prior to and after application of chemicals;
- Select chemicals suited to soil type, and expected turbidity, pH, flow rate;
- Minimize the discharge risk from stored chemicals;
- Comply with state/local requirements;

- Use chemicals in accordance with good engineering practices and specifications of chemical supplier;
- Ensure proper training;
- Provide proper SWPCP documentation.

If you plan to use cationic treatment chemicals, you are ineligible for coverage under this permit, unless you notify your applicable DEQ regional office or agent in advance and receive authorization under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

E.G.4.1.9 *Site stabilization requirements for earth-disturbing activities performed for purposes of mine site preparation as defined in E.G.3.2(a) (i.e., not applicable to construction of staging areas for structures and access roads as defined in E.G.3.2(b)).* You must comply with the following stabilization requirements except where the intended function of the site accounts for such disturbed earth (e.g., the earth disturbances will become actively mined, or the controls implemented at the active mining area effectively control the disturbance) (although you are encouraged to do so within the active mining area, where appropriate):

- *Temporary stabilization of disturbed areas.* Stabilization measures must be initiated immediately in portions of the site where earth-disturbing activities performed for purposes of mine site preparation (as defined in E.G.3.2(a)) have temporarily ceased, but in no case more than 14 days after such activities have temporarily ceased. In arid, semi-arid, 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 earth-disturbing activities performed for purposes of mine site preparation 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 earth-disturbing activities performed for purposes of mine site preparation have permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until active mining activities commence.
- *Final stabilization of disturbed areas.* Stabilization measures must be initiated immediately where earth-disturbing activities performed for purposes of mine site preparation (as defined in E.G.3.2(a)) have permanently ceased, but in no case more than 14 days after the earth-disturbing activities have permanently ceased. In arid, semi-arid, 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 earth-disturbing activities have 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.

E.G.4.2 *Additional Technology-Based Effluent Limits Applicable Only to the Construction of Staging Areas for Structures and Access Roads.* The following technology-based effluent limits apply to authorized discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads, as defined in E.G.3.2(b). These limits supersede the technology-based limits listed in Schedule B and E.G.5 of this sector. These

limits do not apply to earth-disturbing activities performed for purposes of mine site preparation (as defined in E.G.3.2(a)).

E.G.4.2.1 *Area of disturbance.* You must minimize the amount of soil exposed during construction activities.

E.G.4.2.2 *Erosion and sediment control design requirements.* You must:

- Design, install and maintain effective erosion and sediment controls to minimize the discharge of pollutants from earth-disturbing activities. Account for the following factors in designing your erosion and sediment controls:
  - The expected amount, frequency, intensity and duration of precipitation;
  - The nature of stormwater runoff and run-on at the site, including factors such as impervious surfaces, slopes and site drainage features;
  - The range of soil particle sizes expected to be present on the site.
- Direct discharges from your stormwater controls to vegetated areas of your site to increase sediment removal and maximize stormwater infiltration, including any natural buffers, unless infeasible. Use velocity dissipation devices if necessary to prevent erosion when directing stormwater to vegetated areas.
- If any stormwater flow becomes or will be channelized at your site, you must design erosion and sediment controls to control both peak flowrates and total stormwater volume to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.
- If you install stormwater conveyance channels, they must be designed to avoid unstabilized areas on the site and to reduce erosion, unless infeasible. In addition, you must minimize erosion of channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters during discharge conditions through the use of erosion controls and velocity dissipation devices within and along the length of any constructed stormwater conveyance channel, and at any outlet to provide a non-erosive flow velocity.

E.G.4.2.3 *Natural Buffers.* For any stormwater discharges from earth-disturbing activities within 50 feet of a water of the U.S., you must comply with one of the following compliance alternatives:

1. Maintain a 50-foot undisturbed natural buffer between earth-disturbing activities and the water of the U.S.; or
2. Provide an undisturbed natural buffer that is less than 50 feet, permit registrant must implement one or more of the BMPs listed below to control and treat sediment and turbidity:
  - Compost berms, compost blankets, or compost socks;
  - Erosion control mats;
  - Takifiers used in combination with perimeter sediment controls;
  - Approved water treatment by electro-coagulation, flocculation, or filtration; and/or
  - Other substantially equivalent sediment or turbidity control measures approved by DEQ or agent.
3. Ensure all discharges are treated by control measures prior to entering the natural buffer.
4. Delineate and clearly mark off all natural buffers.

There are exceptions when buffer requirements do not apply:

- The natural buffer has already been eliminated by preexisting development disturbances;

- The disturbance is for a water-dependent structure or earth-disturbing approved under a CWA section 404 permit.
- E.G.4.2.4 *Soil or sediment stockpiles.* In addition to the requirements in E.G.4.1.5, you must locate any piles outside of any natural buffers established under E.G.4.2.3.
- E.G.4.2.5 *Sediment basins.* In addition to the requirements in E.G.4.1.6, you must locate sediment basins outside of any surface waters and any natural buffers established under E.G.4.2.3, and you must utilize outlet structures that withdraw water from the surface, unless infeasible.
- E.G.4.2.6 *Native topsoil preservation.* You must preserve native topsoil removed during clearing, grading, or excavation, unless infeasible. Store topsoil in a manner that will maximize its use in reclamation or final vegetative stabilization (e.g., by keeping the topsoil stabilized with seed or similar measures). This requirement does not apply if the intended function of the disturbed area dictates that topsoil be disturbed or removed.
- E.G.4.2.7 *Steep slopes.* You must minimize the disturbance of steep slopes. The permit does not prevent or prohibit disturbance on steep slopes.  
Depending on site conditions and needs, disturbance on steep slopes may be necessary (e.g., a road cut in mountainous terrain; for grading steep slopes prior to erecting the mine office). Where steep slope disturbances are necessary, you can minimize the disturbances to steep slopes through the implementation of a number of standard erosion and sediment control practices, such as by phasing disturbances in these areas and using stabilization practices specifically for steep grades.
- E.G.4.2.8 *Soil compaction.* Where final vegetative stabilization will occur or where infiltration practices will be installed, you must either restrict vehicle/ equipment use in these areas to avoid soil compaction or use soil conditioning techniques to support vegetative growth. Minimizing soil compaction is not required where compacted soil is integral to the functionality of the site.
- E.G.4.2.9 *Dewatering Practices.* You are prohibited from discharging ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults or other similar points of accumulation, unless such waters are first effectively managed by appropriate controls (e.g., sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, or filtration systems).  
Uncontaminated, non-turbid dewatering water can be discharged without being routed to a control.  
You must also meet the following requirements for dewatering activities:
- Discharge requirements:
    - No discharging visible floating solids or foam;
    - Remove oil, grease and other pollutants from dewatering water via an oil-water separator or suitable filtration device (such as a cartridge filter);
    - Utilize vegetated upland areas of the site, to the extent feasible, to infiltrate dewatering water before discharge. In no case shall waters of the U.S. be considered part of the treatment area;
    - Implement velocity dissipation devices at all points where dewatering water is discharged;
    - Haul backwash water away for disposal or return it to the beginning of the treatment process; and
    - Clean or replace the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturers' specifications.

- Treatment chemical restrictions: If you use polymers, flocculants or other chemicals to treat dewatering water, you must comply with the requirements in E.G.4.1.8.

E.G.4.2.10 *Pollution prevention requirements.*

- Prohibited discharges:
  - Wastewater from washout of concrete;
  - Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other materials;
  - Fuels, oils, or other pollutants used for operation and maintenance of vehicles or equipment;
  - Soaps, solvents, or detergents used in vehicle or equipment washing;
  - Toxic or hazardous substances from a spill or other release.
  - Design and location requirements: Minimize the discharge of pollutants from pollutant sources by:
- *Minimizing exposure;*
  - Using secondary containment, spill kits, or other equivalent measures;
  - Locating pollution sources away from surface waters, storm sewer inlets, and drainageways;
  - Cleaning up spills immediately (do not clean by hosing area down).
- *Pollution prevention requirements for wash waters:* Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- *Pollution prevention requirements for the storage, handling, and disposal of construction products, materials, and wastes:* Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to stormwater. Minimization of exposure is not required in cases where the exposure to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

E.G.4.2.11 *Site Stabilization requirements for the construction of staging areas for structures and access roads as defined in E.G.3.2(b) (i.e., not applicable to earth-disturbing activities performed for purposes of mine site preparation as defined in E.G.3.2(a)).*

You must comply with the following stabilization requirements, except where the intended function of the site accounts for such disturbed earth (e.g., the area of construction will become actively mined, or the controls implemented at the active mining area effectively control the disturbance):

- By no later than the end of the next work day after construction work in an area has stopped permanently or temporarily (“temporarily” means the land will be idle for a period of 14 days or more but earth-disturbing activities will resume in the future), immediately initiate stabilization measures;
- If using vegetative measures, by no later than 14 days after initiating stabilization:
  - Seed or plant the area, and provide temporary cover to protect the planted area;
  - Once established, vegetation must be uniform (evenly distributed without large bare areas) perennial vegetation, which provides 70 percent or more coverage based on density of native vegetation.
- If using non-vegetative stabilization, by no later than 14 days after initiating stabilization:

- Install or apply all non-vegetative measures;
- Cover all areas of exposed soil.

Note: For the purposes of this permit, DEQ will consider any of the following types of activities to constitute the initiation of stabilization: 1. Prepping the soil for vegetative or non-vegetative stabilization; 2. Applying mulch or other non-vegetative product to the exposed area; 3. Seeding or planting the exposed area; 4. Starting any of the activities in #1 – 3 on a portion of the area to be stabilized, but not on the entire area; and 5. Finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization.

Exceptions:

- Arid, semi-arid or drought-stricken areas:
  - Within 14 days of stopping construction work in an area, install any necessary non-vegetative stabilization measures;
  - Initiate vegetative stabilization as soon as conditions on the site allow;
  - Document the schedule that will be followed for initiating and completing vegetative stabilization;
  - Cover planted or seeded area with bio or photo degradable erosion controls designed to prevent erosion without active maintenance.
- Sites affected by severe storm events or other unforeseen circumstances:
  - Initiate vegetative stabilization as soon conditions on the site allow;
  - Document the schedule that will be followed for initiating and completing vegetative stabilization;
  - Add a suitable interim measures (such as mulch or bark) are in place if 70 percent coverage of vegetation is expected to expand.

E.G.4.3 *Water Quality-Based Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.* The following water quality-based limits apply to earth-disturbing activities conducted prior to active mining activities defined in E.G.3.2(a) and E.G.3.2(b), in addition to the water quality-based limits in Schedule A.4 and Schedule A.5.

Stricter requirements apply if your site will discharge to an impaired waters that are listed for turbidity or sedimentation or have an EPA-approved TMDL for sedimentation or turbidity:

- More rapid stabilization of exposed areas: Complete initial stabilization activities within 7 days of stopping earth-disturbing work.
- More frequent site inspections: Once every 7 days and within 24 hours of a storm event of 0.25 inches or greater.

E.G.4.4 *Inspection Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.* The following requirements supersede the inspection requirements in Schedule B and E.G.7 for earth-disturbing activities conducted prior to active mining activities defined in E.G.3.2(a) and E.G.3.2(b).

E.G.4.4.1 *Inspection frequency*

- At least once every 7 calendar days, or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater.

Note:

- Inspections only required during working hours;
- Inspections not required during unsafe conditions; and
- If you choose to inspect once every 14 days, you must have a method for measuring rainfall amount on site (either rain gauge or representative weather station)



Note: To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day.

Note: You are required to specify in your SWPCP which schedule you will be following.

Note: "Within 24 hours of the occurrence of a storm event" means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.25 inches, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you are required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

E.G.4.4.2 *Reductions in inspection frequency.*

- Stabilized areas: You may reduce the frequency of inspections to once per month in any area of your site where stabilization has occurred pursuant to E.G.4.1.9 or E.G.4.2.11.
- Arid, semi-arid, and drought stricken areas: If earth-disturbing activities are occurring during the seasonally dry period or during a period in which drought is predicted to occur, you may reduce inspections to once per month and within 24 hours of a 0.25 inch storm event.
- Frozen conditions: You may temporarily suspend or reduce inspections to once per month until thawing conditions occur if frozen conditions are continuous and disturbed areas have been stabilized. For extreme conditions in remote areas, e.g., where transit to the site is perilous/restricted or temperatures are routinely below freezing, you may suspend inspections until the conditions are conducive to safe access, and more frequent inspections can resume.

E.G.4.4.3 *Areas to be inspected.* You must at a minimum inspect the all of the following areas:

- Disturbed areas;
- Stormwater controls and pollution prevention measures;
- Locations where stabilization measures have been implemented;
- Material, waste, borrow, or equipment storage and maintenance areas;
- Areas where stormwater flows;
- Points of discharge.

E.G.4.4.4 *What to check for during inspections.* At a minimum you must check:

- Whether all stormwater controls are installed, operational and working as intended;
- Whether any new or modified stormwater controls are needed;
- For conditions that could lead to a spill or leak;
- For visual signs of erosion/sedimentation at points of discharge.
- If a discharge is occurring, check:
  - The quality and characteristics of the discharge;
  - Whether controls are operating effectively.

E.G.4.4.5 *Inspection report.* Within 24 hours of an inspection, complete a report that includes:

- Inspection date;
- Name and title of inspector(s);
- Summary of inspection findings;
- Rainfall amount that triggered the inspection (if applicable);

- If it was unsafe to inspect a portion of the site, include documentation of the reason and the location(s);
- Each inspection report must be signed;
- Keep a current copy of all reports at the site or at an easily accessible location.

#### **E.G.5 Technology-Based Effluent Limits for Active Mining Activities**

Note: These requirements do not apply for any discharges from earth-disturbing activities conducted prior to active mining as defined in E.G.3.2(a) or E.G.3.2(b).

E.G.5.1 *Employee training.* (See also Schedule A.1.j) Conduct employee training at least annually at active and temporarily inactive facilities.

E.G.5.2 *Stormwater controls.* Apart from the control measures you implement to meet Schedule A technology-based effluent limits, where necessary to minimize pollutant discharges in stormwater, implement the following control measures at your site. The potential pollutants identified in E.G.6.3 shall determine the priority and appropriateness of the control measures selected. For mines subject to dust control requirements under DEQ or county air quality permits, provided the requirements are equivalent, compliance with such air permit dust requirements shall constitute compliance with the dust control effluent limit in Schedule A.1.f. Stormwater diversions: Divert stormwater away from potential pollutant sources through implementation of control measures such as the following, where determined to be feasible including: interceptor or diversion controls (e.g., dikes, swales, curbs, 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.

Capping: When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

Treatment: If treatment of stormwater (e.g., chemical or physical systems, oil - 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 feasible. 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).

E.G.5.3 *Discharge testing.* Test or evaluate all off-site discharge points covered under this permit for the presence of specific mining-related but unauthorized non-stormwater discharges such as seeps or adit discharges, or discharges subject to effluent limitations guidelines (40 CFR Part 440), mine drainage or process water. Alternatively (if applicable), you may keep a certification with your SWPCP consistent with E.G.6.6.

#### **E.G.6 Additional SWPCP Requirements for Mining Operations**

Note: The requirements in E.G.6 are not applicable to inactive metal mining facilities. Some requirements may be already a requirement under Schedule A.7.

E.G.6.1 *Nature of industrial activities.* Briefly document in your SWPCP 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.

E.G.6.2 *Site map.* Document in your SWPCP 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.

- E.G.6.3 *Potential pollutant sources.* 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 SWPCP with this information.
- E.G.6.4 *Documentation of control measures.* Document all control measures that you implement consistent with E.G.5.2. If control measures are implemented or planned but are not listed in E.G.5.2 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPCP. If you are in compliance with dust control requirements under state or county air quality permits, you must include (or summarize, as necessary) what the state or county air quality permit dust control requirements are and how you've achieved compliance with them.
- E.G.6.5 *Employee training.* All employee training(s) must be documented in the SWPCP.
- E.G.6.6 *Certification of permit coverage for commingled non-stormwater discharges.* If you are able, consistent with E.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 SWPCP. 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.

### **E.G.7 Additional Inspection Requirements**

Except for earth-disturbing activities conducted prior to active mining activities as defined in E.G.3.2(a) and E.G.3.2(b), which are subject to E.G.4.4, inspect sites at least monthly unless adverse weather conditions make the site inaccessible. See E.G.8.4 for inspection requirements for inactive and unstaffed sites.

### **E.G.8 Monitoring and Reporting Requirements. (See also Schedule B)**

Note: There are no monitoring and reporting or impaired waters monitoring requirements for inactive and unstaffed sites.

- E.G.8.1 **Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities.** Table E.G-1 identifies benchmarks that apply to active copper ore mining and dressing facilities. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

**Table E.G-1**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

E.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 E.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 E.G-3 in accordance with the requirements in E.G.8.3. DEQ 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 E.G-2**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
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)	Turbidity	50 NTU
	pH	6.0-9.0 s.u.
	Total Antimony	0.64 mg/L
	Total Arsenic	0.15 mg/L
	Total Beryllium	0.13 mg/L
	Total Iron	1.0 mg/L
	Total Mercury	0.0014 mg/L
	Total Nickel	0.5 mg/L
	Total Selenium	0.005 mg/L
Total Silver	0.0005 mg/L	

E.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 E.G.8.2 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 E.G-3 is the same as a pollutant you are required to monitor for in Table E.G-2 (i.e., for all of the metals), you must use the corresponding benchmark in Table E.G-2 and you may use any monitoring results conducted for E.G.8.2 to satisfy the monitoring requirement for that parameter for E.G.8.3. For radium and uranium, which do not have corresponding benchmarks in Table E.G-2, there are no applicable benchmarks. The frequency and schedule for monitoring for these additional parameters is the same as that specified in Table 5.

**Table E.G-3. Additional Monitoring Requirements for Discharges from Waste Rock and Overburden Piles**

<b>Supplemental Requirements</b>			
<b>Type of Ore Mined</b>	<b>Pollutants of Concern</b>		
	<b>Total Suspended Solids (TSS)</b>	<b>pH</b>	<b>Metals, Total</b>
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.

E.G.8.4 *Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Monthly Visual Assessments and Routine Facility Inspections.* As a Sector G facility, if you are seeking to exercise a monitoring or inspection waiver, you are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to stormwater” in Schedule B.4.iii of the permit. 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 monitoring and inspection requirements; and
- DEQ 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.

**Table E.G-4. Applicability of the Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation**

<b>Discharge/Source of Discharge</b>	<b>Note/Comment</b>
<b>Piles</b>	
Waste rock/overburden	If composed entirely of stormwater and not combining with mine drainage. See note below.
Topsoil	--
<b>Roads constructed of waste rock or spent ore</b>	
Onsite haul roads	If composed entirely of stormwater and not combining with mine drainage. See note below.
Offsite haul and access roads	--
<b>Roads not constructed of waste rock or spent ore</b>	
Onsite haul roads	Except if mine drainage is used for dust control

**Table E.G-4. Applicability of the Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation**

Offsite haul and access roads	--
<b>Milling/concentrating</b>	
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
<b>Ancillary areas</b>	
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
<b>Power plant</b>	
Truck wash area	Except when excessive contact with waste product that would otherwise constitute mine drainage
<b>Reclamation-related areas</b>	
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. Operators bear the initial responsibility for determining the applicable technology-based standard for such discharges.

### **E.G.9. Termination of Permit Coverage**

- E.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 E.G.3.3.
- E.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.

## **Schedule E – Sector-Specific Requirements for Industrial Activity**

### **Sector H – Coal Mines and Coal Mining-Related Facilities**

#### **E.H.1 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).

- E.H.1.1 *Mining operations* - For this permit, mining operations are grouped into two distinct categories, with distinct effluent limits and requirements applicable to each: a) earth-disturbing activities conducted prior to active mining activities; and b) active mining activities, which includes reclamation. “Mining operations” can occur at both inactive mining facilities and temporarily inactive mining facilities.
- E.H.1.2 *Earth-disturbing activities conducted prior to active mining activities* – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:
- activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and
  - construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads. Earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are considered to be “construction” and have additional technology based effluent limits in E.H.2.2.
- E.H.1.3 *Active mining activities* – Activities related to the extraction, removal or recovery, and preparation of coal; removal of overburden and waste rock to expose mineable minerals; and site reclamation and closure activities. All such activities occur within the “active mining area.” Reclamation involves activities undertaken, in compliance with applicable mined land reclamation requirements, to return the land to an appropriate post-mining contour and land use in order to meet applicable federal and state reclamation requirements. In addition, once earth-disturbing activities conducted prior to active mining activities have ceased and all related requirements in E.H.2 have been met, and a well-delineated “active mining area” has been established, all activities (including any clearing, grading, and excavation) that occur within the active mining area are “active mining activities.”
- E.H.1.4 *Active mining area* – A place where work or other activity related to the extraction, removal or recovery of coal is being conducted, except, with respect to surface mines, any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun.
- Note: Earth-disturbing activities described in the definition in E.H.1.2 that occur on areas outside the active mining area (e.g., for expansion of the mine into undeveloped territory) are considered “earth-disturbing conducted prior to active mining activities”, and must comply with the requirements in E.H.2.
- E.H.1.5 *Inactive coal mining facility* – A site or portion of a site where coal mining and/or milling occurred in the past but there are no active mining operations occurring 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.

E.H.1.6 *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.

## **E.H.2 Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities**

Stormwater discharges from earth-disturbing activities conducted prior to active mining activities (defined in E.H.1.2) are covered under this permit. For such earth-disturbing activities, you must comply with all applicable requirements in technology-based effluent limits in E.H.3 and Schedule A, the inspection and monitoring requirements in Schedule B and in E.H.5 and E.H.6

Authorized discharges from areas where earth-disturbing activities have ceased and stabilization as specified in E.H.2.1.9 or E.H.2.2.11, where appropriate, has been completed (stabilization is not required for areas where active mining activities will occur), are no longer subject to the E.H.2 requirements. At such time, authorized discharges become subject to all other applicable requirements in the permit, including the technology based effluent limits in limits in E.H.3 and Schedule A, the inspection and monitoring requirements in Schedule B and in E.H.5 and E.H.6.

E.H.2.1 *Technology-Based Effluent Limits Applicable to All Earth-Disturbing Activities Conducted Prior to Active Mining Activities.* The following technology-based effluent limits apply to authorized discharges from all earth-disturbing activities conducted prior to active mining activities defined in E.H.1.2(a) and E.H.1.2(b). These limits supersede the technology-based effluent limits listed in Schedule A.

E.H.2.1.1 *Erosion and sediment control installation requirements.*

- By the time construction activities commence, install and make operational downgradient sediment controls, unless this timeframe is infeasible. If infeasible you must install and make such controls operational as soon as practicable or as soon as site conditions permit.
- All other stormwater controls described in the SWPCP must be installed and made operational as soon as conditions on each portion of the site allows.

E.H.2.1.2 *Erosion and sediment control maintenance requirements.* You must:

- Ensure that all erosion and sediment controls remain in effective operating condition.
- Wherever you determine that a stormwater control needs maintenance to continue operating effectively, initiate efforts to fix the problem immediately after its discovery, and complete such work by the end of the next work day.
- When a stormwater control must be replaced or significantly repaired, complete the work within 7 days, unless infeasible. If 7 days is infeasible, you must complete the installation or repair as soon practicable.

E.H.2.1.3 *Perimeter controls.* You must:

- Install sediment controls along those perimeter areas of your disturbed area that will receive stormwater, except where site conditions prevent the use of such controls (in which case, maximize their installation to the extent practicable).
- Remove sediment before it accumulates to one-half of the above-ground height of any perimeter control.

E.H.2.1.4 *Sediment track-out.* For construction vehicles and equipment exiting the site directly onto paved roads, you must:

- Use appropriate stabilization techniques to minimize sediment track-out from vehicles and equipment prior to exit;
  - Use additional controls to remove sediment from vehicle and equipment tires prior to exit, where necessary;
  - Remove sediment that is tracked out onto paved roads by end of the work day.
- Note: DEQ recognizes that some fine grains may remain visible on the surfaces of off-site streets, other paved areas, and sidewalks even after you have implemented sediment removal practices. Such “staining” is not a violation of E.H.2.1.4.

E.H.2.1.5 *Soil or sediment stockpiles.* You must:

- Minimize erosion of stockpiles from stormwater and wind via temporary cover, if feasible.
- Prevent up-slope stormwater flows from causing erosion of stockpiles (e.g., by diverting flows around the stockpile).
- Minimize sediment from stormwater that runs off of stockpiles, using sediment controls (e.g., a sediment barrier or downslope sediment control).

E.H.2.1.6 *Sediment basins.* If you intend to install a sediment basin to treat stormwater from your earth-disturbing activities, you must:

- Provide storage for either (1) the 2-year, 24-hour storm, or (2) 3,600 cubic feet per acre drained.
- Prevent erosion of (1) basin embankments using stabilization controls (e.g., erosion control blankets), and (2) the inlet and outlet points of the basin using erosion controls and velocity dissipation devices.

E.H.2.1.7 *Minimize dust.* You must minimize the generation of dust through the appropriate application of water or other dust suppression techniques that minimize pollutants being discharged into surface waters.

E.H.2.1.8 *Restrictions on use of treatment chemicals.* If you intend to use sediment treatment chemicals at your site, you are subject to the following minimum requirements:

- Use conventional erosion and sediment controls prior to and after application of chemicals;
- Select chemicals suited to soil type, and expected turbidity, pH, flow rate;
- Minimize the discharge risk from stored chemicals;
- Comply with state/local requirements;
- Use chemicals in accordance with good engineering practices and specifications of chemical supplier;
- Ensure proper training;
- Provide proper SWPCP documentation.

If you plan to use cationic treatment chemicals (as defined in Appendix A), you are ineligible for coverage under this permit, unless you notify your applicable DEQ regional office or agent in advance and the DEQ regional office or agent authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

E.H.2.1.9 *Site stabilization requirements for earth-disturbing activities performed for purposes of mine site preparation as defined in E.H.1.2(a) (i.e., not applicable to construction of staging areas for structures and access roads as defined in E.H.1.2(b)).* You must comply with the following stabilization requirements except where the intended function of the site accounts for such disturbed earth (e.g., the earth disturbances will

become actively mined, or the controls implemented at the active mining area effectively control the disturbance):

- *Temporary stabilization of disturbed areas.* Stabilization measures must be initiated immediately in portions of the site where earth-disturbing activities performed for purposes of mine site preparation (as defined in E.H.1.2(a)) have temporarily ceased, but in no case more than 14 days after such activities have temporarily ceased. In arid, semi-arid, 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 earth-disturbing activities performed for purposes of mine site preparation 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 earth-disturbing activities performed for purposes of mine site preparation have permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until active mining activities commence.
- *Final stabilization of disturbed areas.* Stabilization measures must be initiated immediately where earth-disturbing activities performed for purposes of mine site preparation (as defined in E.H.1.2(a)) have permanently ceased, but in no case more than 14 days after the earth-disturbing activities have permanently ceased. In arid, semi-arid, 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 earth-disturbing activities have 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.

E.H.2.2 *Additional Technology-Based Effluent Limits Applicable Only to the Construction of Staging Areas for Structures and Access Roads.* The following technology-based effluent limits apply to authorized discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads, as defined in E.H.1.2(b). These limits supersede the technology-based limits listed in Schedule A and E.H.3. These limits do not apply to earth-disturbing activities performed for purposes of mine site preparation (as defined in E.H.1.2(a)).

E.H.2.2.1 *Area of disturbance.* You must minimize the amount of soil exposed during construction activities.

E.H.2.2.2 *Erosion and sediment control design requirements.* You must:

- Design, install and maintain effective erosion and sediment controls to minimize the discharge of pollutants from construction activities. Account for the following factors in designing your erosion and sediment controls:
  - The expected amount, frequency, intensity and duration of precipitation;
  - The nature of stormwater runoff and run-on at the site, including factors such as impervious surfaces, slopes and site drainage features;
  - The range of soil particle sizes expected to be present on the site.

- Direct discharges from your stormwater controls to vegetated areas of your site to increase sediment removal and maximize stormwater infiltration, including any natural buffers, unless infeasible. Use velocity dissipation devices if necessary to prevent erosion when directing stormwater to vegetated areas.
- If any stormwater flow becomes or will be channelized at your site, you must design erosion and sediment controls to control both peak flowrates and total stormwater volume to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.
- If you install stormwater conveyance channels, they must be designed to avoid unstabilized areas on the site and to reduce erosion, unless infeasible. In addition, you must minimize erosion of channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters during discharge conditions through the use of erosion controls and velocity dissipation devices within and along the length of any constructed stormwater conveyance channel, and at any outlet to provide a non-erosive flow velocity.

E.H.2.2.3 *Natural Buffers*. For any stormwater discharges from earth-disturbing activities within 50 feet of a water of the U.S., you must comply with one of the following compliance alternatives:

1. Maintain a 50-foot undisturbed natural buffer between earth-disturbing activities and the water of the U.S.; or
2. Provide an undisturbed natural buffer that is less than 50 feet, permit registrant must implement one or more of the BMPs listed below to control and treat sediment and turbidity:
  - Compost berms, compost blankets, or compost socks;
  - Erosion control mats;
  - Takifiers used in combination with perimeter sediment controls;
  - Approved water treatment by electro-coagulation, flocculation, or filtration; and/or
  - Other substantially equivalent sediment or turbidity control measures approved by DEQ or agent.
3. Ensure all discharges are treated by control measures prior to entering the natural buffer.
4. Delineate and clearly mark off all natural buffers.

There are exceptions when buffer requirements do not apply:

- The natural buffer has already been eliminated by preexisting development disturbances;
- The disturbance is for a water-dependent structure or earth-disturbing approved under a CWA section 404 permit.

E.H.2.2.4 *Soil or sediment stockpiles*. In addition to the requirements in E.H.2.1.5, you must locate any piles outside of any natural buffers established under E.H.2.2.3.

E.H.2.2.5 *Sediment basins*. In addition to the requirements in E.H.2.1.6, you must locate sediment basins outside of any surface waters and any natural buffers established under E.H.2.2.3, and you must utilize outlet structures that withdraw water from the surface, unless infeasible.

E.H.2.2.6 *Native topsoil preservation*. You must preserve native topsoil removed during clearing, grading, or excavation, unless infeasible. Store topsoil in a manner that will maximize its use in reclamation or final vegetative stabilization (e.g., by keeping the

topsoil stabilized with seed or similar measures). This requirement does not apply if the intended function of the disturbed area dictates that topsoil be disturbed or removed.

- E.H.2.2.7 *Steep slopes.* You must minimize the disturbance of steep slopes. The permit does not prevent or prohibit disturbance on steep slopes. Depending on site conditions and needs, disturbance on steep slopes may be necessary (e.g., a road cut in mountainous terrain; for grading steep slopes prior to erecting the mine office). Where steep slope disturbances are necessary, you can minimize the disturbances to steep slopes through the implementation of a number of standard erosion and sediment control practices, such as by phasing disturbances in these areas and using stabilization practices specifically for steep grades.
- E.H.2.2.8 *Soil compaction.* Where final vegetative stabilization will occur or where infiltration practices will be installed, you must either restrict vehicle/ equipment use in these areas to avoid soil compaction or use soil conditioning techniques to support vegetative growth. Minimizing soil compaction is not required where compacted soil is integral to the functionality of the site.
- E.H.2.2.9 *Dewatering Practices.* You are prohibited from discharging ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults or other similar points of accumulation, unless such waters are first effectively managed by appropriate controls (e.g., sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, or filtration systems). Uncontaminated, non-turbid dewatering water can be discharged without being routed to a control.
- You must also meet the following requirements for dewatering activities:
- Discharge requirements:
    - No discharging visible floating solids or foam;
    - Remove oil, grease and other pollutants from dewatering water via an oil-water separator or suitable filtration device (such as a cartridge filter);
    - Utilize vegetated upland areas of the site, to the extent feasible, to infiltrate dewatering water before discharge. In no case shall waters of the U.S. be considered part of the treatment area;
    - Implement velocity dissipation devices at all points where dewatering water is discharged;
    - Haul backwash water away for disposal or return it to the beginning of the treatment process; and
    - Clean or replace the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturers' specifications.
  - Treatment chemical restrictions: If you use polymers, flocculants or other chemicals to treat dewatering water, you must comply with the requirements in E.H.2.1.8.
- E.H.2.2.10 *Pollution prevention requirements.*
- Prohibited discharges:
    - Wastewater from washout of concrete;
    - Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other materials;

- Fuels, oils, or other pollutants used for operation and maintenance of vehicles or equipment;
- Soaps, solvents, or detergents used in vehicle or equipment washing;
- Toxic or hazardous substances from a spill or other release.
- Design and location requirements: Minimize the discharge of pollutants from pollutant sources by:
  - Minimizing exposure;
  - Using secondary containment, spill kits, or other equivalent measures;
  - Locating pollution sources away from surface waters, storm sewer inlets, and drainageways;
  - Cleaning up spills immediately (do not clean by hosing area down).
- Pollution prevention requirements for wash waters: Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- Pollution prevention requirements for the storage, handling, and disposal of construction products, materials, and wastes: Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to stormwater. Minimization of exposure is not required in cases where the exposure to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

E.H.2.2.11 *Site Stabilization requirements for the construction of staging areas for structures and access roads as defined in E.H.1.2(b) (i.e., not applicable to earth-disturbing activities performed for purposes of mine site preparation as defined in E.H.1.2(a)).*

You must comply with the following stabilization requirements, except where the intended function of the site accounts for such disturbed earth (e.g., the area of construction will become actively mined, or the controls implemented at the active mining area effectively control the disturbance):

- By no later than the end of the next work day after construction work in an area has stopped permanently or temporarily (“temporarily” means the land will be idle for a period of 14 days or more but earth-disturbing activities will resume in the future), immediately initiate stabilization measures;
- If using vegetative measures, by no later than 14 days after initiating stabilization:
  - Seed or plant the area, and provide temporary cover to protect the planted area;
  - Once established, vegetation must be uniform (evenly distributed without large bare areas) perennial vegetation, which provides 70 percent or more coverage based on density of native vegetation.
- If using non-vegetative stabilization, by no later than 14 days after initiating stabilization:
  - Install or apply all non-vegetative measures;
  - Cover all areas of exposed soil.

Note: For the purposes of this permit, DEQ will consider any of the following types of activities to constitute the initiation of stabilization: 1. Prepping the soil for vegetative or non-vegetative stabilization; 2. Applying mulch or other non-vegetative

product to the exposed area; 3. Seeding or planting the exposed area; 4. Starting any of the activities in #1 – 3 on a portion of the area to be stabilized, but not on the entire area; and 5. Finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization.

Exceptions:

- Arid, semi-arid or drought-stricken areas:
  - Within 14 days of stopping construction work in an area, install any necessary non-vegetative stabilization measures;
  - Initiate vegetative stabilization as soon as conditions on the site allow;
  - Document the schedule that will be followed for initiating and completing vegetative stabilization;
  - Cover planted or seeded area with bio or photo degradable erosion controls designed to prevent erosion without active maintenance.
- Sites affected by severe storm events or other unforeseen circumstances:
  - Initiate vegetative stabilization as soon conditions on the site allow;
  - Document the schedule that will be followed for initiating and completing vegetative stabilization;
  - Add a suitable interim measures (such as mulch or bark) are in place if 70 percent coverage of vegetation is expected to expand.

**E.H.2.3** *Water Quality-Based Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.*

The following water quality-based limits apply to earth-disturbing activities conducted prior to active mining activities defined in E.H.1.2(a) and E.H.1.2(b), in addition to the water quality-based limits Schedule A.4 and A.5.

Stricter requirements apply if your site will discharge to an impaired waters that are listed for turbidity or sedimentation or have an EPA-approved TMDL for sedimentation or turbidity:

- More rapid stabilization of exposed areas: Complete initial stabilization activities within 7 days of stopping earth-disturbing work.
- More frequent site inspections: Once every 7 days and within 24 hours of a storm event of 0.25 inches or greater.

**E.H.2.4** *Inspection Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.*

The following requirements supersede the inspections requirements in Schedule B and E.H.7 of the permit for earth-disturbing activities conducted prior to active mining activities defined in E.H.1.2(a) and E.H.1.2(b).

**E.H.2.4.1** *Inspection Frequency*

- At least once every 7 calendar days, or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater.

Note:

- Inspections only required during working hours;
- Inspections not required during unsafe conditions; and
- If you choose to inspect once every 14 days, you must have a method for measuring rainfall amount on site (either rain gauge or representative weather station)

Note: To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that.

Note: You are required to specify in your SWPCP which schedule you will be following.

Note: "Within 24 hours of the occurrence of a storm event" means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.25 inches, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you are required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

E.H.2.4.2 *Reductions in Inspection Frequency*

- Stabilized areas: You may reduce the frequency of inspections to once per month in any area of your site where stabilization has occurred pursuant to E.H.2.1.9 or E.H.2.2.11.
- Arid, semi-arid, and drought stricken areas: If earth-disturbing activities are occurring during the seasonally dry period or during a period in which drought is predicted to occur, you may reduce inspections to once per month and within 24 hours of a 0.25 inch storm event.
- Frozen conditions: You may temporarily suspend or reduce inspections to once per month until thawing conditions occur if frozen conditions are continuous and disturbed areas have been stabilized. For extreme conditions in remote areas, e.g., where transit to the site is perilous/restricted or temperatures are routinely below freezing, you may suspend inspections until the conditions are conducive to safe access, and more frequent inspections can resume.

E.H.2.4.3 *Areas to be Inspected.* You must at a minimum inspect the following areas:

- Disturbed areas;
- Stormwater controls and pollution prevention measures;
- Locations where stabilization measures have been implemented;
- Material, waste, borrow, or equipment storage and maintenance areas;
- Areas where stormwater flows;
- Points of discharge.

E.H.2.4.4 *What to Check for During Inspections.* At a minimum you must check:

- Whether all stormwater controls are installed, operational, and working as intended;
- Whether any new or modified stormwater controls are needed;
- For conditions that could lead to a spill or leak;
- For visual signs of erosion/sedimentation at points of discharge.

If a discharge is occurring:

- The quality and characteristics of the discharge;
- Whether controls are operating effectively.

E.H.2.4.5 *Inspection Report.* Within 24 hours of an inspection, complete a report that includes:

- Inspection date;
- Name and title of inspector(s);
- Summary of inspection findings;



- Rainfall amount that triggered the inspection (if applicable);
- If it was unsafe to inspect a portion of the site, include documentation of the reason and the location(s);
- Each inspection report must be signed;
- Keep a current copy of all reports at the site or at an easily accessible location.

E.H.2.5 *Cessation of Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.* The requirements in E.H.2 no longer apply for any earth-disturbing activities conducted prior to active mining activities as defined in E.H.1.2(a) or E.H.1.2(b) where:

1. Earth-disturbing activities have ceased; and
2. Stabilization has been met consistent with E.H.2.1.9 or E.H.2.2.11 (not required for areas where active mining activities will occur).

### **E.H.3 Technology-Based Effluent Limits for Active Mining Activities**

Note: These requirements do not apply for any discharges from earth-disturbing activities conducted prior to active mining as defined in E.H.1.2(a) or E.H.1.2(b).

E.H.3.1 *Good Housekeeping Measures.* As part of your good housekeeping program, in order to minimize discharges of pollutants in stormwater, implement control measures such as the following, where determined to be feasible including: using sweepers and covered storage; watering haul roads to minimize dust generation; and conserving vegetation to minimize erosion. For mines subject to dust control requirements under state or county air quality permits, provided the requirements are equivalent, compliance with such air permit dust requirements shall constitute compliance with the dust control effluent limit in Schedule A.1.f.

E.H.3.2 *Preventive Maintenance.* 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.

### **E.H.4 Additional SWPCP Requirements for Mining Operations**

Note: The requirements in E.H.6 are not applicable to inactive coal mining facilities. Some requirements may be already a requirement under Schedule A.7.

E.H.4.1 *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 SWPCP (directly or by reference).

E.H.4.2 *Site Map.* Document in your SWPCP 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; 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.

E.H.4.3 *Potential Pollutant Sources.* Document in your SWPCP 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.

E.H.4.4 If you are in compliance with dust control requirements under state or county air quality permits, you must include (or summarize, as necessary) what the state or county air quality permit dust control requirements are and how you've achieved compliance with them.

**E.H.5 Additional Inspection Requirements**

- E.H.5.1 *Inspections of Active Mining-Related Areas.* Except for earth-disturbing activities conducted prior to active mining activities as defined in E.H.1.2(a) and E.H.1.2(b), which are subject to E.H.2.4, perform routine 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 E.H.8.1 for inspection requirements for inactive and unstaffed sties.
- E.H.5.2 *Sediment and Erosion Control.* As indicated in E.H.4.1, SMCRA requirements regarding sediment and erosion control measures must be complied with for those areas subject to SMCRA authority, including inspection requirements.
- E.H.5.3 *Routine Site Inspections.* 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.

**E.H.6 Sector-Specific Benchmarks**

**Table E.H-1 identifies benchmarks that apply to the specific subsectors of Sector H. These benchmarks apply to both your primary industrial activity and any co-located industrial activities. Note: There are no monitoring and reporting or impaired waters monitoring requirements for inactive and unstaffed sites.**

**Table E.H-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Coal Mines and Related Areas (SIC 1221-1241)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

E.H.6.1 *Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Monthly Visual Assessments and Routine Facility Inspections.* As a Sector H facility, if you are seeking to exercise a monitoring or inspection waiver, you are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to stormwater” in Schedule B.4.iii of the permit. 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 monitoring and inspection requirements; and
- DEQ 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 routine facility inspections, monthly visual assessments, and benchmark and impaired waters monitoring. 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.

**E.H.7 Termination of Permit Coverage**

- E.H.7.1 *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.
- E.H.7.2 *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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector I – Oil and Gas Extraction**

**E.I.1 Additional Technology-Based Effluent Limits**

E.I.1.1 *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.

**E.I.2 Additional SWPCP Requirement**

E.I.2.1 *Drainage Area Site Map.* Document in your SWPCP 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.

E.I.2.2 *Potential Pollutant Sources.* Also document in your SWPCP 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).

E.I.2.3 *Erosion and Sedimentation Control.* Unless covered by the NPDES Construction Stormwater 1200-C General Permit, the additional documentation requirements for sediment and erosion controls for well drillings and sand/shale mining areas include the following:

E.I.2.3.1 *Site Description.* Also include a description in your SWPCP 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.

E.I.2.3.2 *Vegetative Controls.* Document vegetative practices used in the SWPCP.

**E.I.3 Additional Inspection Requirements.**

All erosion and sediment controls must be inspected either: 1) every 7 days; or 2) once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities**

**E.K.1 Definitions**

- K.1.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in E.K.1.4. 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.
- K.1.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.
- K.1.3 *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.
- K.1.4 *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 wash water from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.
- K.1.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
- K.1.6 *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 E.K.1.4. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

### E.K.2 Sector-Specific Benchmarks

Table E.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 E.K-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
ALL - Industrial Activity Code "HZ". Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A.	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	0.001 mg/L
	Total Cyanide	0.022 mg/L
	Total Mercury	0.0014 mg/L
	Total Selenium	0.005 mg/L
	Total Silver	0.0005 mg/L

### E.K.3 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.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.

<b>Table E.K-2<sup>1</sup></b>		
<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	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	

Table E.K-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limit
	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.)	

<sup>1</sup> 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.

## **Schedule E – Sector-Specific Requirements for Industrial Activity Sector L – Landfills, Land Application Sites, and Open Dumps**

### **E.L.1 Definitions**

- E.L.1.1 *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.
- E.L.1.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.
- E.L.1.3 *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.
- E.L.1.4 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
- E.L.1.5 *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.

### **E.L.2 Additional Technology-Based Effluent Limits**

- E.L.2.1 *Preventive Maintenance Program*. 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.
- E.L.2.2 *Erosion and Sedimentation Control*. 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.
- E.L.2.3 *Unauthorized Discharge Test Certification*. The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

### **E.L.3 Additional SWPCP Requirements**

- E.L.3.1 *Drainage Area Site Map*. Document in your SWPCP 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.

E.L.3.2 *Summary of Potential Pollutant Sources.* Document in your SWPCP 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.

**E.L.4 Additional Inspection Requirements**

E.L.4.1 *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.

E.L.4.2 *Inspections of Inactive Sites.* Inspect inactive landfills, open dumps, and land application sites at least monthly. 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.

**E.L.5 Additional Post-Authorization Documentation Requirements**

E.L.5.1 *Recordkeeping and Internal Reporting.* Keep records with your SWPCP 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.

**E.L.6 Sector-Specific Benchmarks**

Table E.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 E.L-1.**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration <sup>1</sup>
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

<sup>1</sup>Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 below).

**E.L.7. Effluent Limitations Based on Effluent Limitations Guidelines**

Table E.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 E.L-2<sup>1</sup>**

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	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.)	

<sup>1</sup> 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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector M – Automobile Salvage Yards**

**E.M.1 Additional Technology-Based Effluent Limits**

- E.M.1.1 *Spill and Leak Prevention Procedures.* 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.
- E.M.1.2 *Employee Training.* 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.
- E.M.1.3 *Management of Runoff.* 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.

**E.M.2 Additional SWPCP Requirements**

- E.M.2.1 *Drainage Area Site Map.* 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.
- E.M.2.2 *Potential Pollutant Sources.* 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.

**E.M.3 Additional Inspection Requirements**

Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect monthly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect monthly 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.

**E.M.4 Sector-Specific Benchmarks**

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

**Table E.M-1.**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Automobile Salvage Yards (SIC 5015)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector N – Scrap and Waste Materials**

**E.N.1 Additional Technology-Based Effluent Limits**

E.N.1.1 *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.

E.N.1.1.1 *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 E.N.3.1.6); (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).

E.N.1.1.2 *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).

E.N.1.1.3 *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.

- E.N.1.1.4 *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.
- E.N.1.1.5 *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.
- E.N.1.1.6 *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.
- E.N.1.1.7 *Spill Prevention and Response Procedures*. (See also Schedule A.1.h) 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.
- E.N.1.1.8 *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.
- E.N.1.2 *Waste Recycling Facilities (Liquid Recyclable Materials)*.
- E.N.1.2.1 *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.

- E.N.1.2.2 *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.
- E.N.1.2.3 *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.
- E.N.1.3 *Recycling Facilities (Source-Separated Materials)*. The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.
- E.N.1.3.1 *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.
- E.N.1.3.2 *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.
- E.N.1.3.3 *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.

- E.N.1.3.4 *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.

### E.N.2 Additional SWPCP Requirements

- E.N.2.1 *Drainage Area Site Map*. Document in your SWPCP 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.
- E.N.2.2 *Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities*. If you are subject to E.N.1.1.3, your SWPCP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

### E.N.3 Sector-Specific Benchmarks

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

**Table E.N-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Recoverable Aluminum	0.75 mg/L
	Total Recoverable Iron	1.0 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity  
Sector O – Steam Electric Generating Facilities.**

**E.O.1 Additional Technology-Based Effluent Limits.**

*The following good housekeeping measures are required in addition to Schedule A.1 of permit:*

- E.O.1.1 *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.
- E.O.1.2 *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.
- E.O.1.3 *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).
- E.O.1.4 *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.
- E.O.1.5 *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.
- E.O.1.6 *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.
- E.O.1.7 *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.
- E.O.1.8 *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.
- E.O.1.9 *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.
- E.O.1.10 *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.



- E.O.1.11 *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.
- E.O.1.12 *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.
- E.O.1.13 *Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites*. Minimize the potential for contamination of runoff from these areas.

**E.O.2 Additional SWPCP Requirements**

- E.O.2.1 *Drainage Area Site Map*. Document in your SWPCP 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).

**E.O.3 Additional Inspection Requirements**

- E.O.3.1 *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.

**E.O.4 Sector-Specific Benchmarks**

Table E.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 E.O-1.**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Steam Electric Generating Facilities (Industrial Activity Code "SE")	Total Iron	1.0 mg/L

**E.O.5 Effluent Limitations Based on Effluent Limitations Guidelines**

Table E.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 E.O-2<sup>1</sup>**

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/l <sup>2</sup>
	pH	6.0 min - 9.0 max

<sup>1</sup> Monitor annually.

<sup>2</sup> 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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector P – Land Transportation and Warehousing.**

**E.P.1 Additional Technology-Based Effluent Limits**

E.P.1.1 *Good Housekeeping Measures.* In addition to the Good Housekeeping requirements in Schedule A.1 of the permit, you must do the following:

E.P.1.1.1 *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.

E.P.1.1.2 *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.

E.P.1.1.3 *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.

E.P.1.1.4 *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.

E.P.1.1.5 *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.

E.P.1.1.6 *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.

E.P.1.2 *Employee Training.* 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.

**E.P.2 Additional SWPCP Requirements**

- E.P.2.1 *Drainage Area Site Map.* Identify in the SWPCP 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.
- E.P.2.2 *Potential Pollutant Sources.* 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 SWPCP.
- E.P.2.3 *Description of Good Housekeeping Measures.* You must document in your SWPCP the good housekeeping measures you implement consistent with E.P.1.
- E.P.2.4 *Vehicle and Equipment Wash Water Requirements.* If wash water is handled in a manner that does not involve separate NPDES permitting (e.g., hauled offsite), describe the disposal method and include all pertinent information (e.g., frequency, volume, destination, etc.) in your SWPCP. Discharges of vehicle and equipment wash water, including tank cleaning operations, are not authorized by this permit for this sector.

**E.P.3 Additional Inspection Requirements** 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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector Q – Water Transportation**

**E.Q.1 Additional Technology-Based Effluent Limits**

- E.Q.1.1 *Good Housekeeping Measures.* You must implement the following good housekeeping measures in addition to requirements in Schedule A.1 of the permit:
- E.Q.1.1.1 *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 pressure washing area so that they are not commingled with stormwater discharges authorized by this permit.
  - E.Q.1.1.2 *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.
  - E.Q.1.1.3 *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.
  - E.Q.1.1.4 *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.
  - E.Q.1.1.5 *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.
  - E.Q.1.1.6 *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.
- E.Q.1.2 *Employee Training.* At a minimum, address 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.

- E.Q.1.3 *Preventive Maintenance.* 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.

**E.Q.2 Additional SWPCP Requirements**

- E.Q.2.1 *Drainage Area Site Map.* Document in your SWPCP 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).
- E.Q.2.2 *Summary of Potential Pollutant Sources.* Document in the SWPCP 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.)

**E.Q.3 Additional Inspection Requirements**

Inspect 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.

**E.Q.4 Sector-Specific Benchmarks**

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

**Table E.Q-1.**

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector R – Ship and Boat Building and Repair Yards**

**E.R.1 Additional Technology-Based Effluent Limits**

**E.R.1.1 *Good Housekeeping Measures.***

E.R.1.1.1 *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.

E.R.1.1.2 *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.

E.R.1.1.3 *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.

E.R.1.1.4 *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.

E.R.1.1.5 *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.

E.R.1.1.6 *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.

E.R.1.2 *Employee Training.* 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.

E.R.1.3 *Preventive Maintenance.* 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.

## **E.R.2 Additional SWPCP Requirements**

- E.R.2.1 *Drainage Area Site Map.* Document in your SWPCP 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).
- E.R.2.2 *Potential Pollutant Sources.* Document in your SWPCP 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).
- E.R.2.3 *Documentation of Good Housekeeping Measures.* Document in your SWPCP any good housekeeping measures implemented to meet the effluent limits in E.R.1.1.
- E.R.2.3.1 *Blasting and Painting Areas.* Document in the SWPCP 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).
- E.R.2.3.2 *Storage Areas.* Specify in your SWPCP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

## **E.R.3 Additional Inspection Requirements**

Include the following in all monthly 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.



## **Schedule E – Sector-Specific Requirements for Industrial Activity**

### **Sector S – Air Transportation**

#### **E.S.1 Limitation on Coverage**

E.S.1.1 *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: the term “deicing” in this permit will generally be used to mean both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made otherwise.

#### **E.S.2 Multiple Operators at Air Transportation Facilities**

Air transportation facilities often have more than one operator who could discharge stormwater associated with industrial activity. Operators include the airport authority and airport tenants, including air passenger or cargo companies, fixed based operators, and other parties who routinely perform industrial activities on airport property.

The airport authority and tenants of the airport are encouraged to work in partnership in the development of the SWPCP. 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. An airport tenant may obtain authorization under this permit and develop a SWPCP for discharges from his/her own areas of the airport.

#### **E.S.3 Additional Technology-Based Effluent Limits**

E.S.3.1 *Good Housekeeping Measures.*

E.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.

E.S.3.1.2 *Aircraft, Ground Vehicle and Equipment Cleaning Areas.* Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of stormwater runoff from cleaning areas.

E.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.

E.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.

- E.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.
- E.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.
- E.S.3.1.6.1 *Runway Deicing Operation:* To minimize the discharge of pollutants in stormwater from runway deicing operations, implement source reduction control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): 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; heating sand; and product substitution.
- E.S.3.1.6.2 *Aircraft Deicing Operations.* Minimize the discharge of pollutants in stormwater from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Determine whether alternatives to glycol and whether containment measures for applied chemicals are feasible. Implement control measures for reducing deicing fluid such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): 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. Consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems where feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations. The evaluations and determinations required by this Part should be carried out by the personnel most familiar with the particular aircraft and flight operations and related systems in question (versus an outside entity such as the airport authority).
- E.S.3.1.7 *Management of Runoff.* Minimize the discharge of pollutants in stormwater from deicing chemicals in runoff. To minimize discharges of pollutants in stormwater from aircraft deicing, implement runoff management control measures such as the following, where determined to be feasible and that accommodate considerations of

safety, space, operational constraints, and flight considerations (list not exclusive): installing a centralized deicing pad to recover deicing fluid following application; plug-and-pump (PnP); using vacuum/collection trucks (glycol recovery vehicles); storing contaminated stormwater/deicing fluids in tanks; recycling collected deicing fluid where feasible; releasing controlled amounts to a publicly owned treatment works; separation of contaminated snow; conveying contaminated runoff into a stormwater impoundment 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. To minimize discharges of pollutants in stormwater from runway deicing, implement runoff management control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): mechanical systems (snow plows, brushes); conveying contaminated runoff into swales and/or a stormwater impoundment; and pollution prevention practices such as ice detection systems, and airfield prewetting.

When applying deicing fluids during non-precipitation events (also referred to as “clear ice deicing”), implement control measures to prevent unauthorized discharge of pollutants (dry-weather discharges of pollutants would need coverage under an NPDES wastewater permit), or to minimize the discharge of pollutants from deicing fluids in later stormwater discharges, implement control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): recovering deicing fluids; preventing the fluids from entering storm sewers or other stormwater discharge conveyances (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains); releasing controlled amounts to a publicly owned treatment works. Used deicing fluid should be recycled whenever practicable.

- E.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.

#### **E.S.4 Additional SWPCP Requirements**

- E.S.4.1 *Drainage Area Site Map.* Document in the SWPCP 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.
- E.S.4.2 *Potential Pollutant Sources.* In your inventory of exposed materials, describe in your SWPCP 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 Safety Data Sheets [SDS]) 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 SWPCPs.

E.S.4.3 *Vehicle and Equipment Washwater Requirements.* Attach to or reference in your SWPCP, a copy of the NPDES permit issued for vehicle/equipment washwater, if applicable. If an industrial user permit is issued under a local pretreatment program, include a copy in your SWPCP. 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 SWPCP.

E.S.4.4 *Documentation of Control Measures Used for Management of Runoff:* Document in your SWPCP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

### E.S.5 Sector-Specific Benchmarks

At a minimum conduct 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. DEQ may specifically require you to increase inspection frequencies.

### E.S.6 Sector-Specific Benchmarks

Table E.S-1 identifies benchmarks that apply to the specific subsectors of Sector S. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, unless a facility has an Individual NPDES Permit for de-icing activities.

**Table E.S-1.**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
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 these parameters in outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581) and when deicing activities are occurring.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Ammonia	2.14 mg/L
	pH	5.5 - 9.0 s.u.

### E.S.7 Effluent Limitations Based on Effluent Limitations Guidelines and New Source Performance Standards

E.S.7.1 *Airfield Pavement Deicing.* For both existing and new “primary airports” (as defined at 40 CFR 449.2) with 1,000 or more annual non-propeller aircraft departures that discharge stormwater from airfield pavement deicing activities, there shall be no discharge of airfield pavement deicers containing urea. To comply with this limitation, such airports must do one of the following: (1) certify annually on the annual report that you do not use pavement deicers containing urea, or (2) meet the effluent limitation in Table E.S-2.

- E.S.7.2 *Aircraft Deicing*. Airports that are both “primary airports” (as defined at 40 CFR 449.2) and new sources (“new airports”) with 1,000 or more annual non-propeller aircraft departures must meet the applicable requirements for aircraft deicing at 40 CFR 449.11(a). Discharges of the collected aircraft deicing fluid directly to waters of the U.S. are not eligible for coverage under this permit.
- E.S.7.3 *Monitoring, Reporting and Recordkeeping*. For new and existing airports subject to the effluent limitations in E.S.7.1 or E.S.7.2 of this permit, you must comply with the applicable monitoring, reporting and recordkeeping requirements outlined in 40 CFR 449.20.

**Table E.S-2.**

<b>Subsector</b> <b>(You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Effluent Limitation</b>
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Ammonia as Nitrogen	14.7 mg/L. daily maximum

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector T – Treatment Works**

**E.T.1 Additional Technology-Based Effluent Limits**

- E.T.1.1 *Control Measures.* 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).
- E.T.1.2 *Employee Training.* 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.

**E.T.2 Additional SWPCP Requirements**

- E.T.2.1 *Site Map.* Document in your SWPCP 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.
- E.T.2.2 *Potential Pollutant Sources.* Document in your SWPCP 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.
- E.T.2.3 *Wastewater and Washwater Requirements.* If wastewater and/or vehicle and equipment washwater is not covered by another NPDES permit but is handled in another manner (e.g., hauled offsite, retained onsite), the disposal method must be described and all pertinent information (e.g., frequency, volume, destination) must be included in your SWPCP. Discharges of vehicle and equipment washwater, including tank cleaning operations, are not authorized by this permit for this sector.

**E.T.3 Additional Inspection Requirements**

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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector U – Food and Kindred Products**

**E.U.1 Additional Technology-Based Limitations**

E.U.1.1 *Employee Training.* Address pest control in your employee training program.

**E.U.2 Additional SWPCP Requirements**

E.U.2.1 *Drainage Area Site Map.* Document in your SWPCP 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.

E.U.2.2 *Potential Pollutant Sources.* Document in your SWPCP, 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.

**E.U.3 Additional Inspection Requirements**

Inspect on a monthly 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.

**E.U.4 Sector-Specific Benchmarks**

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

**Table E.U-1.**

<b>Subsector (You may be subject to requirements for more than one Sector / Subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector V – Textile Mills, Apparel, and Other Fabric Products**

**E.V.1 Additional Technology-Based Limitations**

**E.V.1.1 Good Housekeeping Measures.**

E.V.1.1.1 *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.

E.V.1.1.2 *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.

E.V.1.1.3 *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.

E.V.1.1.4 *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.

E.V.1.2 *Employee Training.* 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.

**E.V.2 Additional SWPCP Requirements**

E.V.2.1 *Potential Pollutant Sources.* Document in your SWPCP 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).

E.V.2.2 *Description of Good Housekeeping Measures for Material Storage Areas.* Document in the SWPCP your containment area or enclosure for materials stored outdoors.



**E.V.3 Additional Inspection Requirements**

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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector W – Furniture and Fixtures**

**E.W.1 Additional Technology-Based Limitations**

E.W.1.1 *Drainage Area Site Map*. Document in your SWPCP 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.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector X – Printing and Publishing**

**E.X.1 Additional Technology-Based Effluent Limits**

**E.X.1.1 Good Housekeeping Measures.**

E.X.1.1.1 *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.

E.X.1.1.2 *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.

E.X.1.1.3 *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.

E.X.1.1.4 *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.

E.X.1.2 *Employee Training.* 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.

**E.X.2 Additional SWPCP Requirements**

E.X.2.1 *Description of Good Housekeeping Measures for Material Storage Areas.* In connection with E.X.1.1.1, describe in the SWPCP the containment area or enclosure for materials stored outdoors.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries**

**E.Y.1 Additional Technology-Based Effluent Limits**

- E.Y.1.1 *Controls for Rubber Manufacturers.* Minimize the discharge of zinc in your stormwater discharges. 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.
- E.Y.1.1.1 *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.
- E.Y.1.1.2 *Dumpsters.* Minimize discharges of zinc from dumpsters through implementation of control measures such as the following, where determined to be feasible (list not exclusive): covering the dumpster; moving the dumpster indoors; and providing a lining for the dumpster.
- E.Y.1.1.3 *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.
- E.Y.1.1.4 *Grinding Operations.* Minimize contamination of stormwater as a result of dust generation from rubber grinding operations. Where determined to be feasible, install a dust collection system.
- E.Y.1.1.5 *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. Where determined to be feasible, use alternative compounds to zinc stearate.
- E.Y.1.2 *Controls for Plastic Products Manufacturers.* Minimize the discharge of plastic resin pellets in your stormwater discharges through implementation of control measures such as the following, where determined to be feasible (list not exclusive): minimizing spills; cleaning up of spills promptly and thoroughly; sweeping thoroughly; pellet capturing; employee education; and disposal precautions.

**E.Y.2 Additional SWPCP Requirements**

- E.Y.2.1 *Potential Pollutant Sources for Rubber Manufacturers.* Document in your SWPCP the use of zinc at your facility and the possible pathways through which zinc may be discharged in stormwater runoff.

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector Z – Leather Tanning and Finishing**

**E.Z.1 Additional Technology-Based Effluent Limits**

**E.Z.1.1 Good Housekeeping Measures.**

- E.Z.1.1.1 *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). Store or protect indoors with polyethylene wrapping, tarpaulins, roofed storage, etc. where practicable. Place materials on an impermeable surface and enclose or put berms (or equivalent measures) around the area to prevent stormwater run-on and runoff where practicable.
- E.Z.1.1.2 *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.
- E.Z.1.1.3 *Buffing and Shaving Areas.* Minimize contamination of stormwater runoff with leather dust from buffing and shaving areas through implementation of control measures such as the following, where determined to be feasible (list not exclusive): implementing dust collection enclosures; implementing preventive inspection and maintenance programs; or other appropriate preventive measures.
- E.Z.1.1.4 *Receiving, Unloading, and Storage Areas.* Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, implement control measures such as the following, where determined to be feasible (list not exclusive): covering all hides and chemical supplies; diverting drainage to the process sewer; or grade berming or curbing the area to prevent stormwater runoff.
- E.Z.1.1.5 *Outdoor Storage of Contaminated Equipment.* Minimize contact of stormwater with contaminated equipment through implementation of control measures such as the following, where determined to be feasible (list not exclusive): covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.
- E.Z.1.1.6 *Waste Management.* Minimize contamination of stormwater runoff from waste storage areas through implementation of control measures such as the following, where determined to be feasible (list not exclusive): 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.

**E.Z.2 Additional SWPCP Requirements**

- E.Z.2.1 *Drainage Area Site Map.* Identify in your SWPCP 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.
- E.Z.2.2 *Potential Pollutant Sources.* Document in your SWPCP 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.

## **Schedule E – Sector-Specific Requirements for Industrial Activity**

### **Sector AA – Fabricated Metal Products**

#### **E.AA.1 Additional Technology-Based Effluent Limits**

##### *E.AA.1.1 Good Housekeeping Measures.*

E.AA.1.1.1 *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.

E.AA.1.1.2 *Paints and Painting Equipment.* Minimize exposure of paint and painting equipment to stormwater.

##### *E.AA.1.2 Spill Prevention and Response Procedures.* Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed

E.AA.1.2.1 *Metal Fabricating Areas.* Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

E.AA.1.2.2 *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 through implementation of control measures such as the following, where determined to be feasible (list not exclusive): 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.

E.AA.1.2.3 *Metal Working Fluid Storage Areas.* Minimize the potential for stormwater contamination from storage areas for metal working fluids.

E.AA.1.2.4 *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.

E.AA.1.2.5 *Lubricating Oil and Hydraulic Fluid Operations.* Minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations. Use monitoring equipment or other devices to detect and control leaks and overflows where feasible. Install perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures where feasible.

E.AA.1.2.6 *Chemical Storage Areas.* Minimize stormwater contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

E.AA.1.3 *Spills and Leaks.* In your spill prevention and response procedures, 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.

#### **E.AA.2 Additional SWPCP Requirements**

E.AA.2.1 *Drainage Area Site Map.* Document in your SWPCP 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.

E.AA.2.2 *Potential Pollutant Sources.* Document in your SWPCP 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.

**E.AA.3 Additional Inspection Requirements**

E.AA.3.1 *Inspections.* 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. 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.

**E.AA.4 Sector-Specific Benchmarks**

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

**Table E.AA-1**

<b>Subsector (You may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

**Schedule E – Sector-Specific Requirements for Industrial Activity**  
**Sector AB – Fabricated Metal Products**

**E.AB.1 Additional SWPCP Requirements**

E.AB.1.1 *Drainage Area Site Map*. Identify in your SWPCP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations.



## SCHEDULE F NPDES GENERAL CONDITIONS

### SECTION A. STANDARD CONDITIONS

#### A1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for DEQ to terminate, modify and reissue, revoke, or deny renewal of a permit.

#### A2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by DEQ or EPA, and in some circumstances also by third-parties under the citizen suit provisions of 33 USC § 1365. DEQ enforcement is generally based on provisions of state statutes and Environmental Quality Commission (EQC) rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows DEQ to impose civil penalties up to \$25,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution in the second degree, is a Class A misdemeanor and is punishable by a fine of up to \$25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, unlawful water pollution in the first degree is a Class B felony and is punishable by a fine of up to \$250,000, imprisonment for not more than 10 years, or both.

The Clean Water Act provides that any person who violates permit condition, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation.

The Clean Water Act provides that any person who *negligently* violates any condition, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 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 2 years, or both.

Any person who *knowingly* violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or 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.

Any person who *knowingly* violates section any permit condition, and who knows at that time that he thereby places 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 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 CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

Any person may be assessed an administrative penalty by the Administrator for violating any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act.

Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000.

Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

A3. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of DEQ, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

A4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

DEQ may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

A5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute.
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts.
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a total maximum daily load (TMDL).
- e. New information or regulations.

- f. Modification of compliance schedules.
- g. Requirements of permit reopener conditions
- h. Correction of technical mistakes made in determining permit conditions.
- i. Determination that the permitted activity endangers human health or the environment.
- j. Other causes as specified in 40 CFR §§ 122.62, 122.64, and 124.5.
- k. For communities with combined sewer overflows (CSOs):
  - (1) To comply with any state or federal law regulation for CSOs that is adopted or promulgated subsequent to the effective date of this permit.
  - (2) If new information that was not available at the time of permit issuance indicates that CSO controls imposed under this permit have failed to ensure attainment of water quality standards, including protection of designated uses.
  - (3) Resulting from implementation of the permittee's long-term control plan and/or permit conditions related to CSOs.

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**A6. Toxic Pollutants**

The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rule (OAR) 340-041-0033 and section 307(a) of the federal Clean Water Act for toxic pollutants, and with standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act, within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

**A7. Property Rights and Other Legal Requirements**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

**A8. Permit References**

Except for effluent standards or prohibitions established under section 307(a) of the federal Clean Water Act and OAR 340-041-0033 for toxic pollutants, and standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

**A9. Permit Fees**

The permittee must pay the fees required by OAR.

**SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS**

**B1. Proper Operation and Maintenance**

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee 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 back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

**B2. Need to Halt or Reduce Activity Not a Defense**

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee 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.

**B3. Bypass of Treatment Facilities**

a. Definitions

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b and c of this section.
- (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 that 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.

b. Prohibition of bypass.

- (1) Bypass is prohibited and DEQ may take enforcement action against a permittee for bypass unless:
  - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - ii. 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 backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and
  - iii. The permittee submitted notices and requests as required under General Condition B3.c.
- (2) DEQ may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, if DEQ determines that it will meet the three conditions listed above in General Condition B3.b.(1).

c. Notice and request for bypass.

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to DEQ at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D5.

**B4. 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 the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

- 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 General Condition B4.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.
- c. Conditions necessary for a demonstration of upset. 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 the permittee can identify the causes(s) of the upset;
  - (2) The permitted facility was at the time being properly operated;
  - (3) The permittee submitted notice of the upset as required in General Condition D5, hereof (24-hour notice); and
  - (4) The permittee complied with any remedial measures required under General Condition A3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

**B5. Treatment of Single Operational Upset**

For purposes of this permit, a single operational upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one federal Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include federal Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

**B6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations**

- a. Definition. "Overflow" means any spill, release or diversion of sewage including:
  - (1) An overflow that results in a discharge to waters of the United States; and
  - (2) An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the United States.
- b. Reporting required. All overflows must be reported orally to DEQ within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D5.

**B7. Public Notification of Effluent Violation or Overflow**

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (for example, public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B8. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

**B8. Emergency Response and Public Notification Plan**

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from overflows, bypasses, or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

- a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
- b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
- c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
- d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
- e. Provide emergency operations; and
- f. Ensure that DEQ is notified of the public notification steps taken.

**B9. Removed Substances**

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

**SECTION C. MONITORING AND RECORDS**

**C1. Representative Sampling**

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of DEQ. Samples must be collected in accordance with requirements in 40 CFR part 122.21 and 40 CFR part 403 Appendix E.

**C2. Flow Measurements**

Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes.

**C3. Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 unless other test procedures have been specified in this permit.

For monitoring of recycled water with no discharge to waters of the state, monitoring must be conducted according to test procedures approved under 40 CFR part 136 or as specified in the most recent edition of Standard Methods for the Examination of Water and Wastewater unless other test procedures have been specified in this permit or approved in writing by DEQ.

**C4. Penalties for Tampering**

The federal 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 may, upon conviction, be punished by a fine of not more than \$10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a

first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.

C5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by DEQ. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

C6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503, or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (for example, total residual chlorine), only the average daily value must be recorded unless otherwise specified in this permit.

C7. Averaging of Measurements

Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

C8. Retention of Records

Records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities must be retained for a period of at least 5 years (or longer as required by 40 CFR part 503). Records of all monitoring information including all calibration and maintenance records, 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 must be retained for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of DEQ at any time.

C9. Records Contents

Records of monitoring information must include:

- a. The date, exact place, time, and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

C10. Inspection and Entry

The permittee must allow DEQ or EPA upon the presentation of credentials to:

- a. Enter upon the permittee's 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 purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

**C11. Confidentiality of Information**

Any information relating to this permit that is submitted to or obtained by DEQ is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR § 122.21 are not classified as confidential [40 CFR § 122.7(b)].

**SECTION D. REPORTING REQUIREMENTS**

**D1. Planned Changes**

The permittee must comply with OAR 340-052, "Review of Plans and Specifications" and 40 CFR § 122.41(1)(1). Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by DEQ. The permittee must give notice to DEQ as soon as possible of any planned physical alternations or additions to the permitted facility.

**D2. Anticipated Noncompliance**

The permittee must give advance notice to DEQ of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

**D3. Transfers**

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and EQC rules. No permit may be transferred to a third party without prior written approval from DEQ. DEQ may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR § 122.61. The permittee must notify DEQ when a transfer of property interest takes place.

**D4. Compliance Schedule**

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. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

**D5. Twenty-Four Hour Reporting**

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) to the DEQ regional office or Oregon Emergency Response System (1-800-452-0311) as specified below within 24 hours from the time the permittee becomes aware of the circumstances.

a. Overflows.

(1) Oral Reporting within 24 hours.

- i. For overflows other than basement backups, the following information must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311. For



basement backups, this information should be reported directly to the DEQ regional office.

- (a) The location of the overflow;
        - (b) The receiving water (if there is one);
        - (c) An estimate of the volume of the overflow;
        - (d) A description of the sewer system component from which the release occurred (for example, manhole, constructed overflow pipe, crack in pipe); and
        - (e) The estimated date and time when the overflow began and stopped or will be stopped.
  - ii. The following information must be reported to the DEQ regional office within 24 hours, or during normal business hours, whichever is earlier:
    - (a) The OERS incident number (if applicable); and
    - (b) A brief description of the event.

(2) Written reporting postmarked within 5 days.

- i. The following information must be provided in writing to the DEQ regional office within 5 days of the time the permittee becomes aware of the overflow:
  - (a) The OERS incident number (if applicable);
  - (b) The cause or suspected cause of the overflow;
  - (c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
  - (d) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps; and
  - (e) For storm-related overflows, the rainfall intensity (inches/hour) and duration of the storm associated with the overflow.

DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

b. Other instances of noncompliance.

- (1) The following instances of noncompliance must be reported:
  - i. Any unanticipated bypass that exceeds any effluent limitation in this permit;
  - ii. Any upset that exceeds any effluent limitation in this permit;
  - iii. Violation of maximum daily discharge limitation for any of the pollutants listed by DEQ in this permit; and
  - iv. Any noncompliance that may endanger human health or the environment.
- (2) During normal business hours, the DEQ regional office must be called. Outside of normal business hours, DEQ must be contacted at 1-800-452-0311 (Oregon Emergency Response System).
- (3) A written submission must be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:
  - i. A description of the noncompliance and its cause;
  - ii. The period of noncompliance, including exact dates and times;
  - iii. The estimated time noncompliance is expected to continue if it has not been corrected;
  - iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
  - v. Public notification steps taken, pursuant to General Condition B7.
- (4) DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

**D6. Other Noncompliance**

The permittee must report all instances of noncompliance not reported under General Condition D4 or D5 at the time monitoring reports are submitted. The reports must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

**D7. Duty to Provide Information**

The permittee must furnish to DEQ within a reasonable time any information that DEQ may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to DEQ, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to DEQ, it must promptly submit such facts or information.

**D8. Signatory Requirements**

All applications, reports or information submitted to DEQ must be signed and certified in accordance with 40 CFR § 122.22.

**D9. Falsification of Information**

Under ORS 468.953, 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 noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$125,000 per violation and up to 5 years in prison per ORS chapter 161. Additionally, according to 40 CFR § 122.41(k)(2), 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 will, upon conviction, be punished by a federal civil penalty not to exceed \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

**D10. Changes to Indirect Dischargers**

The permittee must provide adequate notice to DEQ of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the federal Clean Water Act if it were directly discharging those pollutants and;
- b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice must include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

**SECTION E. DEFINITIONS**

E1. *BOD* or *BOD*<sub>5</sub> means five-day biochemical oxygen demand.

E2. *CBOD* or *CBOD*<sub>5</sub> means five-day carbonaceous biochemical oxygen demand.

E3. *TSS* means total suspended solids.

- E4. *Bacteria* means but is not limited to fecal coliform bacteria, total coliform bacteria, *Escherichia coli* (*E. coli*) bacteria, and *Enterococcus* bacteria.
- E5. *FC* means fecal coliform bacteria.
- E6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
- E7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR § 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
- E8. *mg/l* means milligrams per liter.
- E9. *µg/l* means microgram per liter.
- E10. *kg* means kilograms.
- E11. *m<sup>3</sup>/d* means cubic meters per day.
- E12. *MGD* means million gallons per day.
- E13. *Average monthly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- E14. *Average weekly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
- E15. *Daily discharge* as defined at 40 CFR § 122.2 means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge must be calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge must be calculated as the average measurement of the pollutant over the day.
- E16. *24-hour composite sample* means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
- E17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
- E18. *Quarter* means January through March, April through June, July through September, or October through December.
- E19. *Month* means calendar month.
- E20. *Week* means a calendar week of Sunday through Saturday.
- E21. *POTW* means a publicly-owned treatment works.

## **Appendix B**

### **Stormwater Pollution Control Plan Forms Record of Changes**



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## Appendix B – Record of Revisions

### Record of Revisions & Corrective Actions

Date	Revision or Review	Corrective Action?	Person Making Change
	description. "Currently, there is no industrial activity occurring in this basin."		

**Appendix B – Stormwater Inspection Forms**

<b>Basin O</b>	MH3246 northwest corner of the facility, discharges to the Columbia River	TRICKLE	GREEN	CLEAR	LIGHT	V.	YES	YES
		LOW	BROWN				DESCRIBE	DESCRIBE
Time:		MEDIUM	GRAY	CLOUDY	MEDIUM	HEAVY	:	
		HIGH	YELLOW	TURBID	HEAVY	NO	NO	
		V. HIGH	ORANGE	NO FLOW	NO VISIBLE	NO	NO	
		NO	NO		NO FLOW	NO FLOW	NO FLOW	

***Aboveground Storage Tanks***

<b><i>CONTAINER No.</i></b>	<b><i>DESCRIPTION / CONTENTS</i></b>	<b><i>LOCATION</i></b>	<b><i>EVIDENCE OF SPILLS/LEAKS</i></b>	<b><i>CONDITION OF BOOM</i></b>	<b><i>CONDITION OF PUMP</i></b>	<b><i>COMMENTS/FOLLOW UP</i></b>
<b>T6-AST-4</b>	1,150 gallons / Used oil	West of CDC Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>T6-AST-5</b>	12,000 gallons / Diesel fuel	CDC Fueling Area	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>T6-AST-6</b>	4,000 gallons / Gasoline	CDC Fueling Area	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____

**Appendix B – Stormwater Inspection Forms**

<b>T6-AST-7</b>	500 gallons / Hydraulic oil	Outside Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>T6-AST-8</b>	1,000 gallons / Used oil	Outside Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b><i>Aboveground Storage Tanks- Continued</i></b>						
<b><i>CONTAINER No.</i></b>	<b><i>DESCRIPTION / CONTENTS</i></b>	<b><i>LOCATION</i></b>	<b><i>EVIDENCE OF SPILLS/LEAKS</i></b>	<b><i>CONDITION OF BOOM</i></b>	<b><i>CONDITION OF PUMP</i></b>	<b><i>COMMENTS/FOLLOW UP</i></b>
<b>T6-AST-9</b>	500 gallons / Motor oil	Outside Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>T6-AST-10</b>	280 gallons / Hydraulic oil	Outside Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>T6-AST-11</b>	120 gallons / Hydraulic oil	Outside Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____

***Portable Containers, Totes, Drums, Generators, and Fuel Trucks***



**Appendix B – Stormwater Inspection Forms**

<i>CONTAINER No.</i>	<i>DESCRIPTION / CONTENTS</i>	<i>LOCATION</i>	<i>EVIDENCE OF SPILLS/LEAKS</i>	<i>CONDITION OF BOOM</i>	<i>CONDITION OF PUMP</i>	<i>COMMENTS/FOLLOW UP</i>
<b>DS-2</b>	Up to 3 drums / Various oils	Outside Transtainer Building (covered sheds)	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>DS-4</b>	Up to 50 drums / Empty drums, used absorbent materials	Fenced drum storage area north of CDC Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>MG-1</b>	Mobile Generator / Diesel Fuel	South side of CDC	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>MG-2</b>	Mobile Generator / Diesel Fuel	NE of CDC	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____

**Appendix B – Stormwater Inspection Forms**

<b><i>Wet Transformers</i></b>					
<b><i>ENTITY ID No.</i></b>	<b><i>LOCATION</i></b>	<b><i>EVIDENCE OF SPILLS/LEAKS</i></b>	<b><i>TANK INTEGRITY</i></b>	<b><i>SECONDARY CONTAINMENT</i></b>	<b><i>COMMENTS/FOLLOW UP</i></b>
<b>504</b>	NW of Security Trailers	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>507</b>	Substation South of Decant Box	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>857</b>	North of T6 Admin Bldg	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>509</b>	North of Toploader Lot	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>712</b>	BH 542 (on roof of Rail Scale/Hazardous Cargo BH)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>513</b>	BH 323 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>517</b>	BH 422 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>660</b>	BH 422 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>661</b>	BH 422 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	

**Appendix B – Stormwater Inspection Forms**

<i><b>Wet Transformers</b></i>					
<i><b>ENTITY ID No.</b></i>	<i><b>LOCATION</b></i>	<i><b>EVIDENCE OF SPILLS/LEAKS</b></i>	<i><b>TANK INTEGRITY</b></i>	<i><b>SECONDARY CONTAINMENT</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>662</b>	BH 422 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>518</b>	BH 423	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>663</b>	BH 423 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>664</b>	BH 423 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>665</b>	BH 423 (fenced area)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>520</b>	BH 521 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>521</b>	BH 522 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>620</b>	BH 522 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>522</b>	BH 523 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	

**Appendix B – Stormwater Inspection Forms**

<i><b>Wet Transformers</b></i>					
<i><b>ENTITY ID No.</b></i>	<i><b>LOCATION</b></i>	<i><b>EVIDENCE OF SPILLS/LEAKS</b></i>	<i><b>TANK INTEGRITY</b></i>	<i><b>SECONDARY CONTAINMENT</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>523</b>	BH 523 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>703</b>	BH 621 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>537</b>	BH 311 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>729</b>	BH 313 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>532</b>	BH 411 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>533</b>	BH 411 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>813</b>	BH 411 (in secondary containment)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>531</b>	BH 412 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>814</b>	BH 412 (in secondary containment, down river)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	

**Appendix B – Stormwater Inspection Forms**

<i><b>Wet Transformers</b></i>					
<i><b>ENTITY ID No.</b></i>	<i><b>LOCATION</b></i>	<i><b>EVIDENCE OF SPILLS/LEAKS</b></i>	<i><b>TANK INTEGRITY</b></i>	<i><b>SECONDARY CONTAINMENT</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>815</b>	BH 412 (in secondary containment, up river)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>530</b>	BH 413 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>527</b>	BH 511 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>646</b>	BH 511 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>855</b>	BH 512 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>612</b>	BH 512 (in secondary containment)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>T2 091</b>	BH 512 (in secondary containment)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>524</b>	BH 513 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>525</b>	BH 513 (on roof)	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	

**Appendix B – Stormwater Inspection Forms**

<i><b>Wet Transformers</b></i>					
<i><b>ENTITY ID No.</b></i>	<i><b>LOCATION</b></i>	<i><b>EVIDENCE OF SPILLS/LEAKS</b></i>	<i><b>TANK INTEGRITY</b></i>	<i><b>SECONDARY CONTAINMENT</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>606</b>	Crane 6373	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>607</b>	Crane 6373	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>608</b>	Crane 6374	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>609</b>	Crane 6374	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>610</b>	Crane 6375	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	
<b>611</b>	Crane 6375	NO YES	GOOD NEEDS MNTC	GOOD NEEDS MNTC NONE	

**Appendix B – Stormwater Inspection Forms**

<i><b>Oil Water Separators</b></i>				
<i><b>LOCATION</b></i>	<i><b>CONDITION OF STRUCTURE</b></i>	<i><b>EVIDENCE OF SPILLS</b></i>	<i><b>CLEANING REQUIRED</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>Berth 603</b>	GOOD NEEDS MNTC  NONE	No Yes explain:	No Yes explain:	
<b>Berth 604</b>	GOOD NEEDS MNTC  NONE	No Yes explain:	No Yes explain:	
<b>Berth 605</b>	GOOD NEEDS MNTC  NONE	No Yes explain:	No Yes explain:	
<b>Steam Pad</b>	GOOD NEEDS MNTC  NONE	No Yes explain:	No Yes explain:	
<b>CDC Fueling Area</b>	GOOD NEEDS MNTC  NONE	No Yes explain:	No Yes explain:	

**Appendix B – Stormwater Inspection Forms**

<b>Section 7: Catch Basin Inspections</b>								
<b>SITE AREA/ INDUSTRIAL ACTIVITY</b>	<b>ASSET ID</b>	<b>CONDITION OF STRUCT- URE</b>	<b>DEBRIS IN CATCH BASIN</b>	<b>DOES CATCH BASIN NEED TO BE CLEANED</b>	<b>ODOR</b>	<b>SHEEN</b>	<b>EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORM SYSTEM</b>	<b>COMMENTS/ FOLLOW UP</b>
<b>Drainage Basin K</b>	6518	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6513	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6509	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6507	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	



**Appendix B – Stormwater Inspection Forms**

<b>Section 7: Catch Basin Inspections</b>								
<b>SITE AREA/ INDUSTRIAL ACTIVITY</b>	<b>ASSET ID</b>	<b>CONDITION OF STRUCT- URE</b>	<b>DEBRIS IN CATCH BASIN</b>	<b>DOES CATCH BASIN NEED TO BE CLEANED</b>	<b>ODOR</b>	<b>SHEEN</b>	<b>EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORM SYSTEM</b>	<b>COMMENTS/ FOLLOW UP</b>
	6503	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
<b>Drainage Basin L</b>  Activity: _____	6555	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6547	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6591	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	

**Appendix B – Stormwater Inspection Forms**

<b>Section 7: Catch Basin Inspections</b>								
<b>SITE AREA/ INDUSTRIAL ACTIVITY</b>	<b>ASSET ID</b>	<b>CONDITION OF STRUCT- URE</b>	<b>DEBRIS IN CATCH BASIN</b>	<b>DOES CATCH BASIN NEED TO BE CLEANED</b>	<b>ODOR</b>	<b>SHEEN</b>	<b>EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORM SYSTEM</b>	<b>COMMENTS/ FOLLOW UP</b>
	6521	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6529	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
<b>Drainage Basin M</b>  Activity: _____	2038	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	2032	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	

**Appendix B – Stormwater Inspection Forms**

<b>Section 7: Catch Basin Inspections</b>								
<b>SITE AREA/ INDUSTRIAL ACTIVITY</b>	<b>ASSET ID</b>	<b>CONDITION OF STRUCT- URE</b>	<b>DEBRIS IN CATCH BASIN</b>	<b>DOES CATCH BASIN NEED TO BE CLEANED</b>	<b>ODOR</b>	<b>SHEEN</b>	<b>EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORM SYSTEM</b>	<b>COMMENTS/ FOLLOW UP</b>
	2030	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	2036	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6403	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
<b>Drainage Basin O</b>  Activity: _____	6408	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	

**Appendix B – Stormwater Inspection Forms**

<b>Section 7: Catch Basin Inspections</b>								
<b>SITE AREA/ INDUSTRIAL ACTIVITY</b>	<b>ASSET ID</b>	<b>CONDITION OF STRUCT- URE</b>	<b>DEBRIS IN CATCH BASIN</b>	<b>DOES CATCH BASIN NEED TO BE CLEANED</b>	<b>ODOR</b>	<b>SHEEN</b>	<b>EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORM SYSTEM</b>	<b>COMMENTS/ FOLLOW UP</b>
	6746	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6758	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6772	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	
	6781	GOOD NEEDS MNTC EXPLAIN:	NO  YES EXPLAIN:	NO  YES EXPLAIN:	MUSTY PETROLEUM OTHER NONE	LIGHT MEDIUM HEAVY NONE	NO  YES EXPLAIN:	

**Appendix B – Stormwater Inspection Forms**

<i><b>Additional SPCC Items</b></i>				
<i><b>IDENTIFICATION</b></i>	<i><b>LOCATION</b></i>	<i><b>EQUIPMENT</b></i>	<i><b>OK=Acceptable X= Not Acceptable NA= Not Applicable</b></i>	<i><b>COMMENTS/FOLLOW UP</b></i>
<b>Spill Kit #1</b>	CDC Fuel Island	absorbent pads/booms/drain cover		
<b>Spill Kit #2</b>	CDC Fuel Island- Mobile Fuel Truck	absorbent pads/booms		
<b>Spill Kit #3</b>	Outside Transtainer Building-North	absorbent pads/booms/drain cover		
<b>Spill Kit #4</b>	Outside Transtainer Building-South	absorbent pads/booms		

**Appendix B – Stormwater Inspection Forms**

<i>Additional SPCC Items</i>				
<i>IDENTIFICATION</i>	<i>LOCATION</i>	<i>EQUIPMENT</i>	<i>OK=Acceptable X= Not Acceptable NA= Not Applicable</i>	<i>COMMENTS/FOLLOW UP</i>
<b>Spill Kit #5</b>	Mobile Generator #2	absorbent pads/booms		
<b>Spill Kit #6</b>	Dock Office 605 (Building 7101)	absorbent pads/booms		
<b>Spill Kit #6</b>	Dock Office 603 (Building 8101)	absorbent pads/booms		

**Appendix B – Stormwater Inspection Forms**

<i>Additional SPCC Items</i>						
<i>IDENTIFICATION</i>	<i>LOCATION</i>	<i>EQUIPMENT</i>		<i>OK=Acceptable X= Not Acceptable NA= Not Applicable</i>	<i>COMMENTS/FOLLOW UP</i>	
<b>Spill Response Trailer</b>	Inside CDC Building	5 cases absorbent pads/booms 6 traffic cones 3 empty waste barrels 8 sacks peat-moss-based absorbent 4 brooms 4 shovels 2 bases boom socks 2 drain covers 6 pair rubber gloves 6 disposable Tyvek overalls				
<b>DS-1</b>	Up to 15 drums / Various oils	CDC Oil Storage Room	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____
<b>DS-3</b>	Up to 15 drums / Various oils	Within Transtainer Building	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC NONE	NOTE TANK INTEGRITY: _____ NOTE SEC. CONTAINMENT: _____

**Appendix B – Stormwater Inspection Forms**

<i>Additional SPCC Items</i>						
<i>IDENTIFICATION</i>	<i>LOCATION</i>	<i>EQUIPMENT</i>		<i>OK=Acceptable X= Not Acceptable NA= Not Applicable</i>	<i>COMMENTS/FOLLOW UP</i>	
<b>DS-5</b>	Up to 10 drums / Various Oils	Inside Crane MX Shop	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____  NOTE SEC. CONTAINMENT: _____
<b>T6-AST-1</b>	350 gallons / Motor oil	CDC Oil Storage Room	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____  NOTE SEC. CONTAINMENT: _____
<b>T6-AST-2</b>	182 gallons / Motor oil	CDC Oil Storage Room	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____  NOTE SEC. CONTAINMENT: _____
<b>T6-AST-3</b>	250 gallons / Hydraulic oil	CDC Oil Storage Room	NO YES	NEW GOOD REPLACE NONE	GOOD NEEDS MNTC  NONE	NOTE TANK INTEGRITY: _____  NOTE SEC. CONTAINMENT: _____

\*Shaded cells are additional SPCC items



**Appendix B – Stormwater Inspection Forms**

Stormwater Facility	Bypass Yes/No?	Trash or Sediment Present?	Corrective Action Taken?
Infiltration Gallery			

WEATHER FOR PAST 3 DAYS (Circle all that apply): COLD WET RAINY DRY OTHER: \_\_\_\_\_

Section 8:

Section 9: INSPECTED BY: \_\_\_\_\_

DATE & TIME:

\_\_\_\_\_

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Appendix C**  
**Illicit Discharge Detection and Elimination Procedure**

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## Appendix C – Illicit Discharge and Elimination Procedure

<b>WORK INSTRUCTION:</b>  ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM	Work Instruction #WI-POR-WTR-011
	Date: 01/30/2017
	Owner: -Water Quality Manager
	Page: 1 of 10
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On March 11, 1992, the Port Commission adopted Ordinance No. 361, which provides the Port with the legal authority to prohibit illicit discharge into the storm sewer system owned or operated by the Port. Section 4 of the Ordinance requires written permission from the Port before connection to a Port storm sewer. Section 5 of the Ordinance authorizes the Port to inspect the land and storm sewers for violations of the Ordinance or applicable law that governs the conveyance or disposal of stormwater. The Ordinance allows the Port to control the contribution of pollutants into storm sewers owned or operated by the Port; the quality of stormwater discharged from the sites of industrial activity on land owned by the Port; and the discharge into storm sewers owned or operated by the Port of pollutants from spills, dumping, or the disposal of materials other than stormwater.

### 1.0 SCOPE

This work instruction applies to all Port-owned properties at the Hillsboro Airport

### 2.0 DEFINITIONS

- 2.1 *Illicit Discharge* - any discharge to a MS4 that is not composed entirely of stormwater, except as specifically exempted by the MS4 permit or authorized pursuant to a National Pollution Discharge Elimination System (NPDES) permit.
- 2.2 *Putrid odor* – odor that is associated with decomposing garbage, sewage, or \other non-chemical waste, characteristically sweet, rotten, or indicative of human waste.

### 3.0 RESPONSIBILITY

- 3.1 *The Water Resources Program Manager* is responsible for overall coordination of the Port-wide MS4 Permit, the Illicit Discharge Detection and Elimination Program and the annual reporting to the Department of Environmental Quality (DEQ).
- 3.2 *Environmental Operations* is responsible for illicit discharge inspections, investigations and documentation of the Port-owned outfalls at Swan Island, Rivergate, and all marine terminals.
- 3.3 *Environmental Operations* is responsible for illicit discharge inspections, investigations and documentation of the Port-owned outfalls at Portland International Airport (PDX), Portland International Center (PIC), Hillsboro Airport (HIO) the Troutdale Airport (TTD), the marine Terminal 2 (T2) Terminal 4 (T4) and Terminal 6 (T6).

### 4.0 PROCEDURE

Inspections at all Port-owned outfalls will be conducted between June and August of each year. The inspector will observe each stormwater outfall as identified on a current Port of Portland Storm Sewer System maintainable drawing. At least 72 hours (3 days)

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## Appendix C – Illicit Discharge and Elimination Procedure

<b>WORK INSTRUCTION:</b>  ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM	Work Instruction #WI-POR-WTR-011
	Date: 01/30/2017
	Owner: -Water Quality Manager
	Page: 2 of 10
	Rev. #1

of dry weather should precede the inspections. This procedure will also apply to any investigation of an illicit discharge to the Port's MS4 or storm sewer system.

### 4.1 Field Equipment

The following field equipment items are needed to conduct illicit discharge inspections:

- Illicit Discharge Inspection and investigation Forms
- Infrastructure Maps
- pH meter
- Thermometer
- Multi-probe for pH, Temp., Conductivity (if applicable)
- Sampling scoop/bucket
- Cellular phone
- Pens
- Gloves
- Digital Camera
- Required safety equipment (hard hats, ropes, safety vest, life vest, etc.)
- Laboratory sample coolers containing ice, sample containers, preservatives and chain of custody forms
- Emergency response phone list

### 4.2 Documentation

The Illicit Discharge Inspection and Investigation Form will be used to guide the inspector through all of the necessary observations. Any potential illicit discharge must be documented using this form. Additionally, each outfall will be photo documented to supplement the information captured on the form.

The following is required to be submitted to the Water Resources Environmental Program Manager by September 1 of each year to be included in the MS4 Permit annual report:

- A summary of the investigations: indicate the number of outfalls inspected, the number of outfalls that were discharging (include outfall ID number), and a description of follow-up actions and resolutions;
- Copies of the Illicit Discharge Inspection and Investigation forms;
- Copies of laboratory reports; and
- Labeled photographs of outfalls.

### 4.3 Procedures if a Dry-Weather Flow is Observed (or if an illicit discharge is suspected)

If a dry-weather flow is observed at an outfall, the inspector will proceed with the investigation of the discharge immediately. The Illicit Discharge Inspection & Investigation Form is completed as part of the investigation. Even if the source is

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Appendix C – Illicit Discharge and Elimination Procedure

<b>WORK INSTRUCTION:</b>  ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM	Work Instruction #WI-POR-WTR-011
	Date: 01/30/2017
	Owner: -Water Quality Manager
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known when a discharge is discovered, the investigation form is completed as a record of the information and the corrective actions.

If possible, to determine the source of a potential illicit discharge, the inspector will track the flow as far as possible along the conveyance away from the outfall or point of observation referring to the storm sewer system map of the drainage basin. At a point where the storm system intersects the conveyance containing the flow and both conveyances have a flow, both conveyances are then tracked. This will be done by driving the basin at the time of discharge, or if access is not available at that time, further investigation of the site will be conducted at a later date when access has been secured. Follow up investigations will occur when a discharge is present.

The inspector must determine if the flow is from a permitted non-stormwater discharge as specified in the MS4 Permit. This characterization is based on the following regulatory list of allowable or permissible discharges identified below (40 CFR 122.26 (d) (2) (IV) (B) (I)):

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water
- Infiltration to separate storm sewers
- Individual residential car washing
- Flows from riparian habitats & wetlands
- Dechlorinated swimming pool
- Air conditioning condensation
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Foundation drains
- Street wash water discharges

Based on this list, the inspector will determine if the discharge is permissible. If the source is not permissible, the investigator will ensure that the Port responds within the provisions of Ordinance 361 to terminate the flow. All action taken will be documented on an Illicit Discharge Inspection/Investigation Form. A Notice of Non-Compliance or Notice of Violation will be issued depending on the circumstances. \*If the flow appears to be a spill of significant material, the inspector will activate the emergency spill response by calling the contacts on the emergency phone list.

Investigations into dry-weather flows or other reported illicit discharges will follow the IDDE Action Levels flow chart (attached). In addition, the following techniques may also be implemented to track sources of discharges: tenant and employee interviews, dye testing, conveyance videotaping and smoke testing. If the outfall is submerged and access is available, the inspector shall track back up the conveyance system away from the outfall to a point where an observation can be made. The point of observation may be a manhole, inlet grate, catch basin, curb grate, etc.

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**Once the source of an illicit discharge is determined, the Port's response timing is dictated by specific MS4 Permit requirements as follows.**

The inspector must conduct an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If it is determined that the elimination of the illicit discharge will take more than 15 working days due to technical, logistical or other reasonable issues, an action plan to eliminate the illicit discharge in an expeditious manner must be developed. The action plan must be completed in 20 working days of determining the source of an illicit discharge. The action plan, response procedures, response plan or similar document developed for each illicit discharge must include an as soon as is practicable timeframe for elimination of the discharge.

**The MS4 Permit also requires timely notification be made under the following circumstances.**

If a suspected illicit discharge is detected that originates from another jurisdiction's MS4 they must be notified within one day. Likewise, if an illicit discharge originating in the Port's storm sewer system flows into another jurisdiction's system, that municipality must be notified of the situation within one day. Contact the City of Portland's Bureau of Environmental Services Industrial Stormwater Program Supervisor to report discharges on properties not owned by the Port or for tenants holding stormwater permits issued by the City. Forward all documentation regarding City notifications to the Water Resources Program Manager.

#### 4.4 Sampling and Analysis

Certain water quality parameters can serve as indicators of the likely presence or absence of illicit discharges. Some can be measured in the field. However, if the inspector deems it necessary to collect water samples for laboratory analysis (based on the attached IDDE Action Level Flow Chart or the inspector's knowledge of the industrial activities in the drainage area) to aid in determining the source of the potential illicit discharge, samples shall be collected. Sample collection, transport, and analysis will be conducted following the requirements of 40 CFR 136 (*Guidelines Establishing Test Procedures for the Analysis of Pollutants*).

Field analysis will be conducted using accurate and efficient hand held meters or test kits following established QA/QC procedures. The results from the field screen must be documented on the Illicit Discharge Inspection and Investigation Form.

If samples are taken for analysis by an Oregon-certified laboratory, they shall be labeled with the time, date, sample location and outfall identification number and prepared for shipment to ensure sample integrity is maintained. A chain of custody form shall be completed for every sample shipped. The laboratory must conduct all analysis according to requirements outlined in 40 CFR 136. If requested, the laboratory will provide the inspector with sample containers, preservatives, and coolers prior to the field observations. The collected samples will be chemically preserved according to EPA approved methods. The samples shall be immediately placed in a laboratory cooler with

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Appendix C – Illicit Discharge and Elimination Procedure

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ice. The suggested analytical methods to investigate discharges identified for sampling through the pollutant action level flow chart are provided in Table 1.

**Table 1. Suggested IDDE Analytical Parameters and Methods**

Parameter	Method	Detection Limit	Hold Time	Sample Container	Possible Sources
<b>pH</b>	EPA 150.1	--	15 min.	Field test	Detergents, washing, soda ash, acid, <b>Normal range: 5.5 - 9.0</b>
<b>Temperature</b>	EPA 170.1	--	--	Field test	<b>High limit: 24° C/75°F</b>
<b>Conductivity</b>	EPA 120.1	--	--	Field test	<b>Normal range: 50 to 1500 µmhos/cm</b>
<b>E. Coli</b>	SM 9223	1 MPN/100 ml	6 hours	Bacteria bottle 100 ml, cooled to 4° C	Animal waste, failing septic systems, sanitary discharge
<b>Total Chlorine</b>	SM 4500-CLB	0.10 mg/L	24 hours	Glass 40 ml bottle unpreserved	Hydrant flushing, water line leak, washing
<b>Ammonia Nitrogen</b>	EPA 350.1	0.01-2.0 mg/L	28 days	1 L plastic or glass, with H <sub>2</sub> SO <sub>4</sub> and cooled to 4° C	Industrial waste, sanitary discharge
<b>Oil and Grease</b>	EPA 1664	5.0 mg/L	28 days	1 L amber w/ HCl	Fueling, equipment leaks, spills
<b>NWTPH/- HCID</b>	EPA 3510	0.25 mg/L	7 days	1 L glass jar with Teflon coated lid, with HCL and cooled to 4° C	Wash water, fueling, spills, leaks, dumping.
<b>Total Suspended Solids (TSS)</b>	EPA 160.2	10 mg/L	7 days	500 ml poly unpreserved	Construction, erosion, poor housekeeping

#### 4.5 Reporting Requirements

Environmental Operations staff must submit the following to the Water Resources Program Manager by September 1 of each year:

- An illicit discharge inspection summary noting the specific outfall IDs for each outfall inspected, number of outfalls inspected, number of outfalls observed with discharges, number of follow-up investigations, the outcome of the investigations;
- Copies of the Illicit Discharge Inspection and Investigation Forms, any Notices of Non-Compliance, Notices of Violation issued; and
- Labeled outfall photographs.

#### 4.6 Records Retention:

Environmental Operations staff shall maintain all documentation related to the Illicit Discharge Detection and Elimination Program for a minimum of 6 years after the date of the MS4 permit expiration. Summary records will be retained as part of the Municipal



Appendix C – Illicit Discharge and Elimination Procedure

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Stormwater Permit documentation. Confirm retention timelines with the Port’s Records Retention Calendar, accessible on Navigator.

**5.0 VERIFICATION AND CORRECTIVE ACTION**

- 5.1 This work instruction is to be reviewed on a periodic basis by the Water Resources Program Manager or designee to verify the purpose and scope is applicable to Port needs and the steps within adequately support the purpose and scope. If deficiencies are discovered, corrective action will be taken.
- 5.2 Port conformance with this work instruction will reviewed on a periodic basis by Water Resources Program Manager or designee. If nonconformance is discovered, corrective action will be taken.

**6.0 REFERENCES**

- 6.1 40 CFR 122.26 (d)(2)(iv)(B)
- 6.2 Port of Portland Ordinance 361
- 6.3 Port of Portland Municipal Separate Storm Sewer System Permit Number 101314
- 6.4 Port of Portland Stormwater Management Plan

**7.0 ATTACHMENTS**

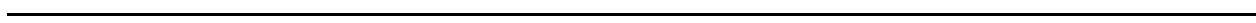
- 7.1 Illicit Discharge Inspection and Investigation Form
  - 7.2 IDDE Action Level Flow Chart
-

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**9.0 REVISION HISTORY**

<b>WI-POR-WTR-011 Illicit Discharge and Elimination System Program</b>	
<b>Date</b>	<b>Description of Changes</b>
07/21/06	Original version
11/21/11	Updated per the requirements of the 2011 MS4 permit, IDDE Action Level Flow Chart added.
01/30/2017	Changed <i>Aviation and MID Environmental</i> to <i>Environmental Operations</i>



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**PORT OF PORTLAND**

**ILLCIT DISCHARGE INSPECTION & INVESTIGATION FORM**

This form is to be completed following the protocol in the Port of Portland's Municipal Stormwater Permit  
Illicit Discharge Detection and Elimination Work Instruction

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Inspection Team: \_\_\_\_\_

Operating Area:  PDX  Marine Terminal: \_\_\_\_\_  Properties: \_\_\_\_\_

Time since last rain ( $\geq 0.1"$ ):  within the last 72 hrs.  over 72 hrs.  
(Note: Inspections should only be conducted if only 72 hours has elapsed since last measurable rain)

Outfall ID: \_\_\_\_\_ Photo

#: \_\_\_\_\_

Location: \_\_\_\_\_

Outfall Type: \_\_\_\_\_ Channel/Pipe Diameter: \_\_\_\_\_

**Flow Observed:**  Yes  No Describe Flow: \_\_\_\_\_

*If yes, complete remainder of form. If no, form is complete. Submit copies to Water Resources Program Manager.*

Describe discharge in as much detail as possible (color, odor, sheen, solids, foam, etc.):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Appendix C – Illicit Discharge and Elimination Procedure

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**Evidence of permitted flow** (40 CFR 122.26 (d)(2)(iv)(B)(1)): Is the source of the flow an obvious discharge from the list of exempt discharges from Schedule A(4) of the MS4 Permit?

Yes    No

See reverse side for list of exempt discharges.

Describe discharge source:

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Is there any exposure to potential contamination?    Yes    No Describe:

---

**If the source is not on the list of allowable discharges, or discharge shows signs of contamination, conduct an illicit discharge investigation and complete the back of this form.**

- Submit the following documents to the Water Resources Program Manager by September 1:
- Illicit Discharge Inspection & Investigation Forms, Notice of Non-Compliance, and Notice of Violation Forms
  - Copies of any laboratory results
  - Copies of labeled photographs
  - Summary Report

Appendix C – Illicit Discharge and Elimination Procedure

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**PORT OF PORTLAND**  
**ILLICIT DISCHARGE INSPECTION & INVESTIGATION FORM**

This side is to be completed immediately as documentation of a potential illicit discharge.

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Inspection Team:  
\_\_\_\_\_

Operating Area/Location:  
\_\_\_\_\_

Outfall ID: \_\_\_\_\_  
Photo# \_\_\_\_\_

Outfall Type: \_\_\_\_\_ Channel/Pipe Diameter:  
\_\_\_\_\_

Activities occurring upstream of outfall:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

List parameters analyzed (use action level flow chart to determine): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Analytical lab providing analysis:  
\_\_\_\_\_

Temperature: \_\_\_\_\_ pH: \_\_\_\_\_ Conductivity: \_\_\_\_\_  
Follow-up/corrective actions:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Persons Notified:  
\_\_\_\_\_

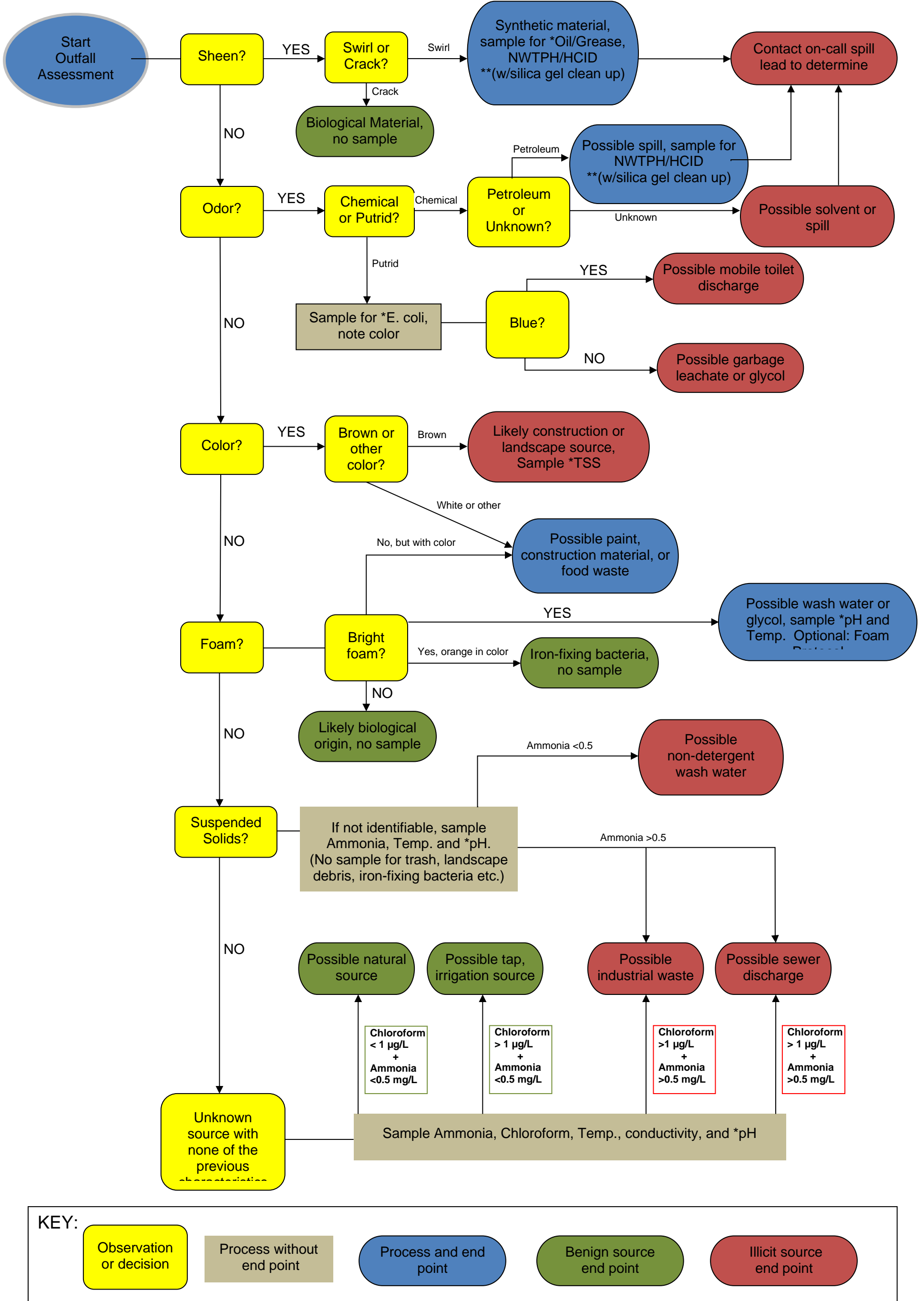
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**Authorized Non-Stormwater Discharges**

These discharges are allowable or permissible discharges (40 CFR 122.26 (d)(2)(iv)(B)(1)) provided appropriate BMPs are used to minimize the impacts of pollutants: *water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, startup flushing of groundwater wells, aquifer storage and recovery (ASR) wells, potable groundwater monitoring wells, draining and flushing of municipal potable water storage reservoirs, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash waters, discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465, the state’s environmental cleanup law; and discharges or flows from emergency firefighting activities.* **For areas holding an 1200-Z or 1200-COLS permit the following additional discharges are authorized;** Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing; vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for the discharge; routine external building wash down that does not use detergents or hot water; incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains).

WI-POR-WTR-011 Attachment B: Illicit Discharge Investigation Action Levels



\*Sampling only conducted at outfalls regulated under an Industrial Stormwater General Permit as identified in the facility's Stormwater Pollution Control Plan (SWPCP). These sample results must be included in the facility's annual DMR report to DEQ.

\*\*If HCID results detect heavier fractions, re-analyze the sample with a silica gel clean-up to remove organic interference

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**Appendix D**  
**Pavement Deicing Best Management Practices**



# **Pavement Deicing Best Management Practices (BMPs) for Port and Tenants**

## **1.0 General BMPs**

### **1.1 Proper Storage of Anti-icing and Deicing Materials**

Pavement deicing and anti-icing materials must be stored in accordance with all applicable regulatory requirements. All permanent, aboveground deicing and anti-icing fluid storage tanks at the airport must be double-walled or equipped with secondary containment and undergo routine inspections. To prevent contamination of stormwater, tenant must use appropriate spill response techniques per their established spill response plan.

### **1.2 Weather Forecasting**

The Port and tenants will obtain existing and forecasted weather conditions for T6 and existing conditions, to determine the timing and selection of anti-icing or deicing materials application. The overall goal is to contribute the lowest possible pollutant loading consistent with maintaining safe operating conditions.

### **1.3 Education and Training of Employees and Contractors**

It is the responsibility of each tenant to develop and implement an employee and contractor education and training program about environmental requirements and proper application associated with the use of anti-icing and deicing materials, ensure awareness of best management practices and spill response procedures, and to inform and train personnel who are directly involved in anti-icing or deicing operations regarding required best management practices and operational procedures.

The training programs include (but are not limited to) the following:

- The requirements of the 1200-Z National Pollutant Discharge Elimination System permit
  - Tenant best management practices
  - Tenant operational procedures and requirements
  - Tenant spill response plan and procedures
-

## Appendix D – Pavement Deicing Best Management Practices

- Tenant material management practices

## 2.0 Pavement BMPs

### 2.1 Selection of Pavement Anti-icing and Deicing Materials

Tenants must select pavement anti-icing and deicing materials that provide the lowest pollutant loading. Sodium formate (solid) and potassium acetate (liquid) are recommended for pavement deicing because both products have a lower pollutant loading compared to other deicers. Anhydrous sodium acetate (solid) may be used as a backup product if sodium formate is temporarily unavailable.

### 2.2 Minimize Pavement Anti-icing and Deicing Area

Tenants and Port maintenance must apply deicing and anti-icing materials to the smallest possible area, consistent with safe operations, to minimize pollutant loading.

### 2.3 Recordkeeping

Each tenant is responsible for monitoring the types and quantities of airside pavement deicing and anti-icing materials used and purchased during the year. Tenants must also submit their usage to the Port annually.

T6 Maintenance monitors the types and quantities of airside pavement deicing and anti-icing materials used and purchased by the Port during.

## 3.0 Summary

To reduce pollutant loads to surface waters, tenants will implement BMPs, during the winter season as summarized below.

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Appendix D – Pavement Deicing Best Management Practices

Table 1: Summary of Deicing Best Management Practices (BMPs)

BMP	Implementation
<b>General</b>	
Proper storage	All permanent, aboveground ADF storage tanks will be double-walled or equipped with secondary containment. Aboveground tanks will be routinely inspected. Spill response plans will be followed to minimize stormwater impacts.
Forecasting of anti-icing and deicing weather	Weather forecasting will be used to minimize deicing material usage while maintaining safe operating conditions in compliance with applicable regulations.
Education and training	Tenants will conduct permit, best management practice and spill management training for their employees and contractors.
<b>Pavement</b>	
Material selection	Select materials that provide the lowest pollutant loading conditions consistent with safe flight. Liquid potassium acetate and solid sodium formate will be used airside, unless sodium formate supply limitations warrant use of hydrated sodium acetate.
Reduce application amounts	Flow-controlled application equipment will be used to maximize material application and reduce volume of applied material.
Minimize pavement applications	Deicing and anti-icing material are applied to the smallest area practicable.

## Appendix D – Pavement Deicing Best Management Practices



**Appendix E**  
**2019 Tier II Report**

Tier II Revised Stormwater Pollution Control Plan Checklist  
Schedule for implementing these measures  
Rationale for the selection of the measures  
Treatment system schematic and operational plan  
Operation and maintenance schedule for treatment measures  
and/or volume reduction measures proposed

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