MENZIES AVIATION

PDX - Base #520
Portland International Airport
Portland, Oregon

Integrated Contingency Plan

Prepared By:

Advanced Remediation Technologies, Inc
690 NW 1ST AVENUE, SUITE 109
CANBY, OREGON 97013
(503)-266-2122

Effective Date of Plan:
November 2016

Record of Amendments to the ICP

Date Change Proposed (If applicable)	Effective Date of Change	Certified Reviewer	Initialed	Section Modified	Modifications/Changes	Regulatory Notification/Date
	01/2004	Lance A. Downs, PE		Modification to "One Plan" entire plan	Incorporation of SPCC, FRP, and ERA into "One Plan" format.	Oregon DEQ 12/31/03
	11/2006	Bruce Kelly, PE		Update to Revised Regulation	Mobile refueller parking	
	01/2011	Lance A. Downs, PE		5 year update	South Load Rack relocation	
	08/2012	Lance A Downs, PE		Comments from Port/DEQ	Corrected numbers and pipeline operator	
	11/2016	Lance A Downs, PE		5 year update	O/W separator installed	
	04/10/18	Lance A. Downs, PE		Sec. 2.4.6 & 2.4.7	North Fueling Rack AST's	
	05/15/19	Lance A. Downs, PE		Sec 1.0 & 2.0	Personnel changes	
	08/08/23	Lance A. Downs. PE		Exclude ground fueling operations, 5 year update	Operational Changes	

The following pages include all of the certifications necessary for compliance with 40 CFR 112 and 40 CFR 122.

ICP CERTIFICATION AND APPROVAL SIGNATURES

I, Lance A. Downs, a Registered Professional Engineer, have examined the PDX Fuel Company, LLC Consortium /Menzies Aviation (PDX FC/Menzies) facilities and certify that this Integrated Emergency Response/Pollution Prevention Plan has been prepared in accordance with the following: good engineering practices, including consideration of applicable industry standards, U.S. Environmental Protection Agency Oil and Hazardous Substance Site Spill Prevention Control and Countermeasures (SPCC) regulations (40 CFR 112), Hazardous Waste regulations (40 CFR 264, 265), Underground Storage Tank requirements (40 CFR 280), and The National Pollutant Discharge Elimination System regulations (40 CFR 122, 125). Procedures for inspections and testing have been established within the plan and the plan is adequate for the facility as it is currently described.

Signature: Lance A Downs Date: August 8, 2023

P.E. Registration No. 18510PE

State: Oregon

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The Integrated Contingency Plan (ICP) was approved by the management of the PDX FC/Menzies and will be implemented at the facility as described herein. I have reviewed the terms of this plan and will to the best of my ability, oversee the implementation of the plan's provisions. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Name: Scott Baker
Title: Facility Manager

Facility Name: PDX Fuel Company, LLC Consortium Fuel Storage and Distribution
Fuel Storage and Distribution Facility
4858 NE Marine Drive
Portland, Oregon 97218
Maximum storage capacity: 3,360,000 gallons of Jet A fuel

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

Operator Name: Menzies Aviation
3500 William D Tate Ave, Suite 200
Grapevine, Texas 76051

Facility Name: PDX Fuel Company, LLC Consortium Fuel Storage and Distribution
Fuel Storage and Distribution Facility
4858 NE Marine Drive
Portland, Oregon 97218

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?

YES_____ NO__X__

2. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility without secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?

YES_____ NO__X__

3. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area defined in Appendix D?*

YES__X__ NO_____

4. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula considered acceptable by the RA*) such that a discharge from the facility would shut down a public drinking water intake?

YES_____ NO__X__

5. Does the facility have a maximum storage capacity greater than or equal to one million gallons and within the past five years has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons?

YES_____ NO__X__

**From 40 CFR 112. If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.*

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature	Date
Scott Baker	Facility Manager
Name (Please type or print)	Title

Table of Contents

List of Figures, Reports, and Forms

Reports

Forms

List of Tables

List of Acronyms

AST	Aboveground Storage Tank
BMP	Best Management Practices
CERCLA	Comprehensive, Environmental, Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EC	Emergency Coordinator
EPA	Environmental Protection Agency
FRP	Facility Response Plan
GSE	Ground Service Equipment
ICP	Integrated Contingency Plan
IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LEPC	Local Emergency Planning Committee
LQG	Large Quantity Generator
Menzies	Menzies Aviation
MSDS	Material Safety Data Sheet
NPDES	National Pollution Discharge Elimination System
NAICS	North American Industry Classification System
OAR	Oregon Administrative Rules
OERS	Oregon Emergency Response System
OR DEQ	Oregon Department of Environmental Quality
ORPDES	Oregon Pollutant Discharge Elimination System
ORS	Oregon Revised Statues
OSC	On-Scene Coordinator
IOSC	Installation On-Scene Coordinator
PDX	Portland International Airport
PDX FC	PDX Fuel Company, LLC
POC	Point of Contact
POL	Petroleum, Oil or Lubricant
POTW	Publicly Owned Treatment Works
PPE	Personal Protection Equipment
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act
SIC	Standard Industrial Code
SOP	Standard Operating Procedures
SPCC	Spill Prevention Control and Countermeasure
SPCCP	Spill Prevention Control and Countermeasure Plan
SQG	Small Quantity Generator
SWPPP	Storm Water Pollution Prevention Plan
TSD	Treatment, Storage and Disposal
UL	Underwriters Laboratories
USF	Used Sump Fuel
UST	Underground Storage Tank

1.0 PLAN INTRODUCTION

1.1 General Facility Identification Information

Facility name: PDX FC Fuel Company, LLC (PDX FC) Fuel Storage and Distribution

Owner/operator/agent: Port of Portland/PDX FC/Menzies Aviation

Physical address: Fuel Storage Facility & Distribution
4858 NE Marine Drive
Portland, Oregon 97218

Mailing address: Menzies Aviation
8133 Air Trans Way
Portland, Oregon 97218

Facility Manager and other persons qualified to implement ICP:

Primary Contact: Scott Baker, Facility Manager
Phone Number: (503) 752-1726, work
(360) 619-2589, cellular

Secondary Contact: Robert Delanoy, Fuel Facility Supervisor
Phone Number: (360) 721-0244, cellular

Tertiary Contact: John Cisco, HSE Training Manager
Phone Number: (971) 917-1417, cellular

Facility fax number: Menzies: (503) 280-9831

Other identifying information:
Latitude: 45°35'50"
Longitude: 122°36'45"
Multnomah County, Oregon

Directions to the facility:

Coming from the south (heading north) on I-205 take exit number 24A, and proceed west on NE Airport way. Turn left onto Highway 213 (NE 82nd Ave.) and proceed south to the intersection of NE Alderwood Rd. Turn right onto NE Alderwood Rd., and then turn right onto NE Cornfoot. Proceed on NE Cornfoot to NE Air Trans Way, Turn right onto NE Air Trans Way.

Coming from the north (heading south) on I-205 take exit number 24 and follow directions above.

1.2 Purpose & Scope

The purpose of the Integrated Contingency Plan (ICP) is the generation of a best management practices (BMP) and functional emergency response plan for the PDX FC fuel storage and distribution system. Its intent is to protect human health and provide a single set of procedures and guidance for preventing, controlling and responding to releases or potential releases of pollutants to the environment. This ICP

synthesizes the required planning elements of the following federal Environmental Protection Agency (EPA) and State of Oregon, as applicable to the PDX FC, thereby eliminating the need for separate plans.

- **Resource Conservation and Recovery Act (RCRA) Contingency Planning requirements (40 CFR 264 and 265)**
- **Spill Prevention Control and Countermeasure Plan (SPCCP) (40 CFR 112)**
- **Facility Response Plan (FRP) (40 CFR 112)**
- **Oil & Hazardous Materials Emergency Response Requirement (OAR Div 142, ORS 468B)**

The format of the ICP is adapted from the guidance recommended by the National Response Team published on June 5, 1996, in the Federal Register. The ICP is intended to substantiate conformance with the guidance and satisfy the requirements of the referenced regulations.

The ICP is a user-friendly tool to protect natural resources by establishing an effective prevention and response program. The ICP identifies potential sources of harmful discharges of oil and hazardous substances that have the possibility to contaminate the environment (groundwater, surface water, air, land, etc.) through uncontrolled releases. It evaluates each source's pollutant release potential and describes current BMPs to prevent and control potential releases. It also serves as a basis for training personnel in preventing releases and implementing appropriate countermeasure actions.

Copies of the ICP must be kept at the facility and with local emergency responders whose assistance may be necessary in the event of an emergency incident.

1.3 Regulatory Applicability

The applicable federal and State of Oregon regulations referenced above are satisfied in the ICP. The following subsections present regulatory applicability of the component plans.

1.3.1 Spill Prevention Control and Countermeasures Plan and Installation Spill Contingency Plan Applicability

SPCCP Requirements

The development of a SPCCP is required under Title 40, Code of Federal Regulations (CFR), Part 112. Under Federal Regulation 40 CFR 112.1(d), a SPCCP must be written when one of the following requirements is met:

(1) Due to its location, the facility has a reasonable potential to discharge oil into or upon navigable waters of the United States; or

(2) Meets at least one of the following criteria:
   a. The total aboveground oil storage capacity at the facility is greater than 1,320 gallons; or
   b. The total underground oil storage capacity is greater than 42,000 gallons.

If the facility meets the federal criteria, a Self-Certification Statement of the applicability of substantial harm criteria must be completed and signed by the Responsible person. The criteria are designed to identify a facility that has the potential to cause substantial harm to the environment, specifically by discharging into navigable waters or adjacent shorelines. It should be noted that a yes answer to any of the questions would trigger a requirement to prepare a facility response plan. The Self-Certification Statement precedes the Introduction.

The PDX FC meets the first and second criteria for the development of a SPCC under 40 CFR 112.1(d) because it contains three ASTs with a total capacity of 3,360,000 gallons (two ASTs with a capacity of 840,000 gallons each and one AST with a 1,680,000-gallon capacity) used to store Jet A fuel. The amount of hazardous materials stored at the facility exceeds "consumer quantities."

Note: (1) - The term "navigable waters" has been modified several times over the years, each modification expanding the previous definition to include smaller streams, tributaries, and accumulations of water, such that now virtually all "waters of the U.S." are included.

1.3.2 Resource Conservation and Recovery Act Contingency Plan

Under 40 CFR 262.34(a)(4), owners and operators of facilities that generate hazardous wastes are required to comply with the Interim Status Treatment, Storage, and Disposal (TSD) Facility Standards listed under 40 CFR Part 265.30 (Subpart C) and 265.50 (Subpart D). Small Quantity Generators (SQG) must comply with Subpart C, while LQGs must comply with both Subparts C and D.

Subpart C (Preparedness and Prevention) presents the requirements a facility must implement to prevent or minimize an emergency situation involving fire, explosion, or a release of hazardous waste into the environment.

Subpart D lists the requirements for development of a contingency plan and the procedures a facility should follow in the case of an emergency such as a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water at the facility. In addition to presenting contingency plan content requirements, Subpart D provides:

- Record keeping and amendment requirements for the plans; and
- Detailed emergency procedures and record keeping and reporting requirements during emergencies.

PDX FC/Menzies does not generate hazardous waste, currently. The facility is considered to be exempt from most hazardous waste management requirements. PDX FC/Menzies, however, is required to determine which wastes are hazardous, and treat or dispose of wastes onsite or deliver wastes to an offsite TSD facility that meets standards under 40 CFR Parts 265 and 270. If the quantity of hazardous waste at PDX FC/Menzies increases such that the above-listed quantities are exceeded (but do not trigger full-regulatory status as a LQG), the facility will lose its conditionally exempt status and will be considered a SQG.

As a conditionally exempt small quantity generator (CESQG), PDX FC/Menzies is not required to develop and maintain a Hazardous Waste Contingency Plan.

1.4 Plan Implementation

At least one copy of the plan will kept at the Menzies Maintenance office and accessible at any time by the incident commander or spill response manager named in accordance with OAR 340-141-0140(7). At least one copy of the plan will be kept at the Fuel Storage Facility covered by the plan and kept it in a conspicuous and accessible location.

In addition to personnel responsible for emergency response (see Section 2.1), representatives Menzies headquarters in Fort Worth, Texas are responsible for ensuring the plan is effectively implemented. These individuals are discussed below.

Menzies Aviation Headquarters

Menzies Aviation Headquarters has overall program management responsibility for ensuring the ICP is effectively implemented at the PDX PDX FC/Menzies facilities. Menzies's Corporate responsibilities include:

- Providing oversight and guidance to the facility to assist in the plan's implementation;

- Assuring compliance with permit conditions, if appropriate
- Conducting or contracting facility comprehensive site compliance evaluations (see Section 2.4.7) and assuring necessary proper corrective actions are initiated;
- Developing employee training as required by the plan;
- Reviewing annually and updating the ICP.

Facility Manager

The Facility Manager is responsible for ensuring that day-to-day operations are conducted in accordance with the ICP. The Facility Manager at PDX FC/Menzies is Scott Baker. The individual responsible for spill or incident response at PDX FC/Menzies is Scott Baker. His duties include:

- Conducting routine facility inspections and implementing necessary corrective actions following discussion with the facility manager;
- Assisting in revision of the plan, including modifying or developing new BMPs;
- Scheduling team meetings on at least an annual basis to discuss issues related to the plan, including spill incidents, effectiveness of BMPs, and recommended plan modifications;
- Modifying existing or developing new BMP alternatives;
- Coordinating employee training as required by the plan, including reviewing training records;
- Conducting or otherwise providing annual and new employee training as required by the plan.

1.5 Commitment of Manpowern and Equipment

In the event of an emergency incident, Menzies will use whatever manpower, equipment, and materials necessary to safely respond to the incident in the minimum time, with minimal environmental damage and maximum recovery of the released material as practicable. At no time will personnel safety be jeopardized nor will environmental protection take precedence over personnel safety. In the event of worst case spill, the primary manpower and equipment resources will be as follows;

US Ecology (Primary)
6211 North Ensign Street
Portland, Oregon 97217

Terra Hydr, Inc. (Secondary)
P.O. Box 3616.
Portland, Oregon 97208

1.6 Documentation of Plan Review and Modification Process

The ICP must be amended whenever there is a change in facility design, construction, operation, or maintenance that materially affects (i.e., increases or decreases) the facility's potential to discharge oil or a hazardous material or waste into the environment. In addition, facility owners or operators are required to review and evaluate the ICP at least once every five years from the time the facility becomes subject to SPCC regulation. Following this review and evaluation, the ICP must be amended within six months of the review to include more effective prevention and control technology if:

- Such technology will significantly reduce the likelihood of a spill or release event from the facility; and
- The technology has been field-proven at the time of the review.

In order to satisfy the requirements of 40 CFR 112.5, SPCCP related amendments must be certified by a Professional Engineer. Interim amendment certification will be incorporated into the plan in addition to the five-year certification.

This plan will be reviewed and/or modified under the following circumstances:

- Once every five years;
- After the release of more than 1,000 gallons of oil or if two reportable spills (greater than 42 gallons each) occur within a 12-month period;
- If there is a change in facility design, construction, operation, or maintenance that materially affects (i.e., increases or decreases) the facility's potential to discharge oil or a hazardous material or waste into the environment;
- If applicable regulations are revised;
- If the ICP fails in an emergency;
- If the Emergency Coordinator (EC) changes[1];
- If the list of emergency equipment changes;
- If the Regional Administrator requires an amendment;[2]
- If the Comprehensive Site Compliance Evaluation (required at least once per year by the storm water regulations) is performed, and the results require changes to the description of potential pollutant sources and pollution prevention measures and controls. Note that the revisions must be made to the ICP within two weeks of the evaluation and implementation of any changes to the ICP must be in a timely manner, but in no case more than 12 weeks after evaluation.[1]

A record of amendments or modifications will be kept with the ICP.

The Oregon Department of Environmental Quality requires notification in writing as soon as possible and within 24 hours of any significant change that could affect implementation of this plan, including a significant decrease in available spill response equipment or personnel. A schedule for the prompt return of the plan to full operational status will also be given.

After the occurrence of an emergency incident, the following questions will be asked of facility emergency response personnel, under the direction of the EC:

- How might the emergency response execution be improved? Does the Emergency Response Structure need modification?
- What lessons were learned? Did existing procedures contribute to the cause of an incident?
- Was there any feedback from external agencies or responders that may improve response planning?
- What changes, if any, might be made to the ICP to improve emergency response planning?

[1] A PE re-certification is not required because this amendment is not related to 40 CFR 112.5.

[2] Within 30 days from receipt of the amendment notice the facility may submit written information, views, and arguments on the amendment. After reviewing the relevant material the Regional Administrator shall notify the facility of any amendment required or shall rescind the notice. The amendment is to become part of the Plan 30 days after such notice. The amendment of the Plan should be implemented as soon as possible but, not later than six months after the amendment becomes part of the plan, unless the Regional Administrator specified another date. The facility may appeal a decision made by the Regional Administrator requiring an amendment. This appeal is to be made to the administrator of the USEPA and must be made in writing within 30 days of receipt of the notice requiring the amendment.

After the preceding questions are answered, it may be necessary to modify the ICP. A record of the modifications will be noted in the table on Page i located at the beginning of the ICP.

Personnel to contact for plan review and maintenance is:

Menzies: Scott Baker, Facility Manager

1.7 Organization of the ICP

The ICP is organized into three primary sections: the Plan Introduction, the Core Plan, and the Annexes.

- **The Introduction** consists of general facility identification information, description of ICP review procedures, and the regulatory cross-reference matrix. The matrix is a tool that allows facility personnel and regulators to cross-reference required regulatory components with their locations in the ICP.
- **The Core Plan** consists of a description of the facility, emergency response procedures, an inventory and description of potential sources of pollution, and storm water management procedures.
- **The Annexes** include detailed supporting information on specific response techniques, such as procedures to address specific kinds of common spills and releases. It also includes BMPs as they pertain to the site. The BMPs include inspection procedures and degree of training required to maintain regulatory compliance. Necessary documentation used to demonstrate regulatory compliance and checklists that can be used to ensure compliance and promote good housekeeping are included in the Annexes.

1.8 Regulatory Cross-Reference Matrix

The matrix below can be used to reference required components of a SPCCP, a FRP, and a Hazardous Waste Contingency Plan to their locations in the ICP.

SPCCP (40 CFR 112)

FRP (40 CFR 112)

Hazardous Waste Contingency Plan (40 CFR 265, Subpart D)

Oregon Oil Spill Contingency Planning (OAR 141-340)

2.0 CORE PLAN

The Core Plan consists of a description of emergency response procedures for both major and minor incidents. It is followed by a description of the facility, its history, and potential sources of pollution. Finally, storm water management is discussed.

2.1 Emergency Response

2.1.1 Objectives and Goals

Emergency response procedures are developed to ensure that emergency incidents are responded to quickly, safely and effectively, and are properly reported and documented. Emergency incidents include pollutant releases to the environment resulting from spills, as well as explosions, fires and other dangerous incidents. Releases may be more or less severe. Some will require emergency assistance, while facility personnel can handle others.

The immediate goals of response to an emergency incident are to preserve human safety and health and to prevent, to the maximum extent practicable, harm to the environment. PDX FC/Menzies will ensure, by all necessary approved means, the availability of resources necessary for facility personnel and the EC to meet these goals and to prepare for worst case scenarios for an emergency incident.

Menzies personnel are not required to make major efforts or risk personnel safety to clean up spills. When an incident is beyond the capability of facility personnel to complete emergency response, the appropriate action is to make required notifications and then assist outside personnel in completing security of the site and containment of spilled material, whether those outside personnel be other public officials or response companies contracted by Menzies management.

Emergency response DOES NOT include cleanup of the site unless within the capabilities of facility personnel and completed as an "incidental release." Cleanup beyond the capabilities of facility personnel will be coordinated by the EC.

2.1.2 Response Management Structure

This section provides an overview of the response management structure. Throughout the response to an emergency incident, there are several persons who hold responsibility for carrying out appropriate and complete response measures. Figure 2-1 illustrates the Installation Response Team (IRT) command Structure and identifies key members and phone numbers.

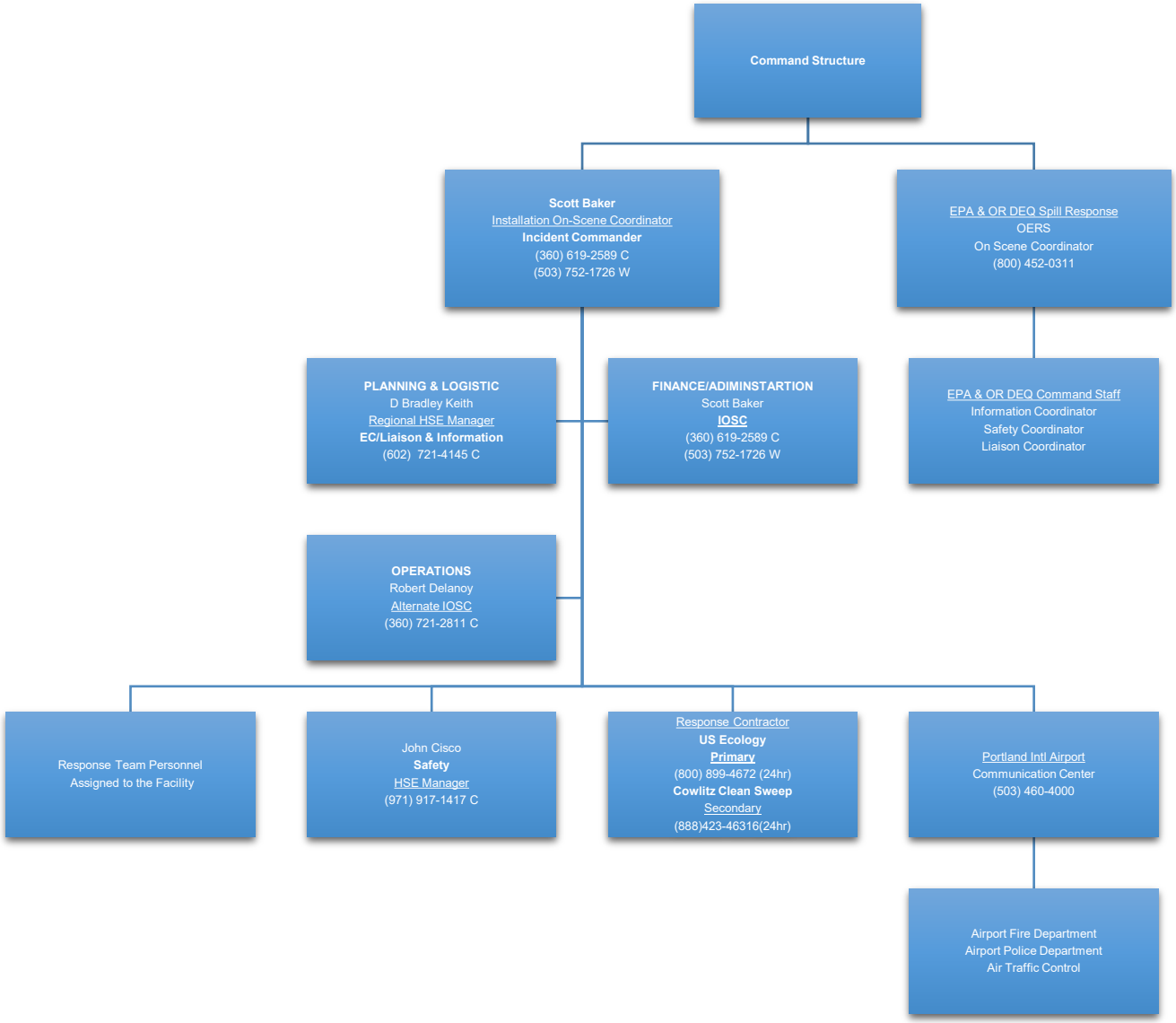


Figure 2-1: Installation Response Team Command Structure

EC Responsibilities

The EC will serve as a resource to the Installation On-Scene Coordinator (IOSC)/Qualified Individual (QI) and the OR DEQ On-Scene Coordinator (OSC). The primary responsibilities of the EC are to assist in emergency response and notification, if possible, clean up environmental contamination, restore the site (if needed), and assist in reporting to appropriate regulatory agencies. Upon notification (after a release of a "reportable quantity"), the EC will notify appropriate federal, state and local agencies (see Section 2.1.4), if not already done by the IOSC/QI. Additionally, the EC will:

- Take all reasonable measures necessary to ensure that emergency incidents do not occur, reoccur, or spread throughout the facility;
- Assess the possible direct and indirect hazards to human health and the environment (e.g., harmful effects of gases generated by the incident, maximum exposure limits, or harmful effects to the environment caused by chemical agents or surface water run-off). Identify areas of economic importance and environmental sensitivity. Such areas may require extraordinary response consideration;
- Perform site cleanup and contract/project management for large spills subsequent to the initial response provided by local emergency responders or other public agencies.

IOSC/QI Responsibilities

Emergency response is initiated when notification is made to the IOSC/QI, who is responsible for initiating immediate response to the incident for this facility, as described below:

- The IOSC/QI will utilize the IRT and other available assets of the facility if the required response is within the capabilities of facility personnel. The IOSC/QI will then use facility equipment to provide security and initiate containment and cleanup. The IOSC/QI must also provide telephonic and written notification to the EC (see ***EC Responsibilities*** above).
- If a "reportable quantity" or amount of material beyond the capability of the facility to provide appropriate response has been released, the IOSC/QI will immediately call (503) 460-4000 to obtain local assistance from PDX Communication Center.
- If a "reportable quantity" has been released, the IOSC/QI must notify the EC telephonically, either directly during normal working hours or during after hours, in order to obtain site restoration services and ensure that required notifications to regulatory agencies has been completed.
- State law requires notification of "reportable quantities" to the Oregon Emergency Response System (OERS) immediately of the incident by calling 1-800-452-0311. This will be accomplished by the EC if coordination of the incident has been made by the IOSC/QI. If the EC has not been notified, the IOSC/QI must notify OERS. A call to OERS activates a notification system to all potentially affected public agencies. This requirement is not met by calling 911.
- All spills, even those not of a "reportable quantity" and those that are adequately cleaned up by facility personnel, must be reported by the IOSC /QI to the EC within 24 hours or the first working day after the incident, and a completed copy of Spill Incident Report must be faxed to Menzies Corporate Headquarters within 72 hours of the incident.

When an incident occurs, the IOSC/QI will follow the steps described below.

1. **EXECUTE** Spill Response Requirements (see Section 2.1.3).
2. **CHARACTERIZE** the Spill:
   - What was spilled?
   - How much was spilled?
   - Was a "Reportable Quantity" spilled?
   - Has surface water been impacted?
3. **CONTACT** the Facility Manager (and, if necessary, PDX Communication Center and ORES) immediately.
4. **NOTIFY** (see Section 2.1.4) if a "Reportable Quantity" was spilled. This is necessary to ensure regulatory agencies are notified, financial liability of those who caused the spill is protected, and necessary support for cleanup is obtained.
   a. Call IOSC Scott Baker, 360-619-2589.
   b. Call Regional HS&E D Bradley Keith, 602-721-4145.
   c. Call OERS (1-800-452-0311) immediately if either of the above cannot be contacted.

1. **CONTAIN or CLEAN UP** any spill within the unit's capability with available materials and equipment. Do not over-task personnel. Pursue all actions safely.
2. **REQUEST** immediate assistance, if required, to contain or clean up the spill, especially if water is impacted. Call 911, if required. Coordinate with responders or other public officials, as necessary:
3. **REPORT** all POL or hazardous material spills to Menzies Corporate Headquarters.
   a. Complete an Menzies Spill Incident Report (see Annex 3.8).
   b. Verbal Report to Menzies's Regional and Corporate HS&E within 24 hours, if "reportable quantity" and not previously notified.
   c. Written report to Menzies Corporate within 72 hours (or next normal working day).

Upon notification, the IOSC/QI characterizes the release by evaluating the type of material, size, location, and potential hazard of the spill. Pertinent information that must be conveyed to the EC by the IOSC/QI includes:

- Nature of the incident (fire, explosion, release, etc.);
- Location of the incident;
- Number of injured personnel and nature of the injuries, if any;
- Substance(s) released;
- Amount released (estimated);
- Status of release (e.g., shut off, still discharging, reached storm sewer);
- Rate substance currently releasing (estimated);
- Time incident occurred;
- Direction and extent of flow (release);
- Any other pertinent information (other potential hazards).

The IOSC/QI has the responsibility to manage and direct all response operations until relieved by the commander of the local fire department or other public official, if local emergency response assistance has been requested. Facility personnel will then assume subordinate roles to the local responders. When called to a facility, the senior local fire department official will serve as Incident Commander and will execute response procedures. The IOSC/QI will serve in a subordinate response capacity, but does not relinquish authority or control of the IRT. The IOSC/QI retains the responsibility of conducting ongoing incident assessment until the emergency portion of the event is terminated. (Local police departments, fire departments, and state and local emergency response teams are required to have current copies of the ICP. Local hospitals are required to have been notified of the hazardous materials and waste contained at the facility.) When the emergency portion of the event is terminated, the IOSC/QI must coordinate with the EC to initiate cleanup and restoration of the site.

IRT Responsibilities

The IRT works under the direction of the IOSC/QI and is the first level of defense against expansion and aggravation of the incident until arrival of outside assistance, if such assistance is required. The IRT members are personnel who are responsible for controlling spills and hazardous materials/wastes releases.

Table 2-1. Installation Response Team

Name	Response Expertise	Responsibilities
Scott Baker	Safety and spill cleanup supervisor.	Installation On-Scene Coordinator Makes final decision on local level. Maintains communication with PDX, Response Contractors, and regulatory OSC
Robert Delanoy	Provide absorbent material, shovels. Contain spill.	Alternate Installation On-Scene Coordinator
Facility Personnel	Turn off power to POL area, provide containment material, contain spill. Position fire extinguishers and prevent fire or explosion. Enforce safety zone, keep spectators a safe distance away.	IRT member

The IRT will attempt to prevent spills from entering streams, drainage ditches or other bodies of water using methods such as ditching, diking or covering with sand, soil or other absorbent material. If response by the fire department or other HAZMAT team is obtained, the IRT may assist in that effort by providing materials and equipment as practicable and within capabilities, but does not fall under the control or answer directly to anyone but the IOSC/QI.

2.1.3 Emergency Response Actions

When an emergency incident occurs, PDX FC/Menzies personnel will follow the sequence of steps as illustrated in Figure 2-2.

Discovery and Initial Response

The initial observer to a spill or emergency incident should first take action to protect themselves and other personnel from harm and then immediately notify his/her supervisor or the IOSC/QI. Personnel not trained in spill response should not enter the spill area unless they are familiar with the material spilled and the safety precautions required.

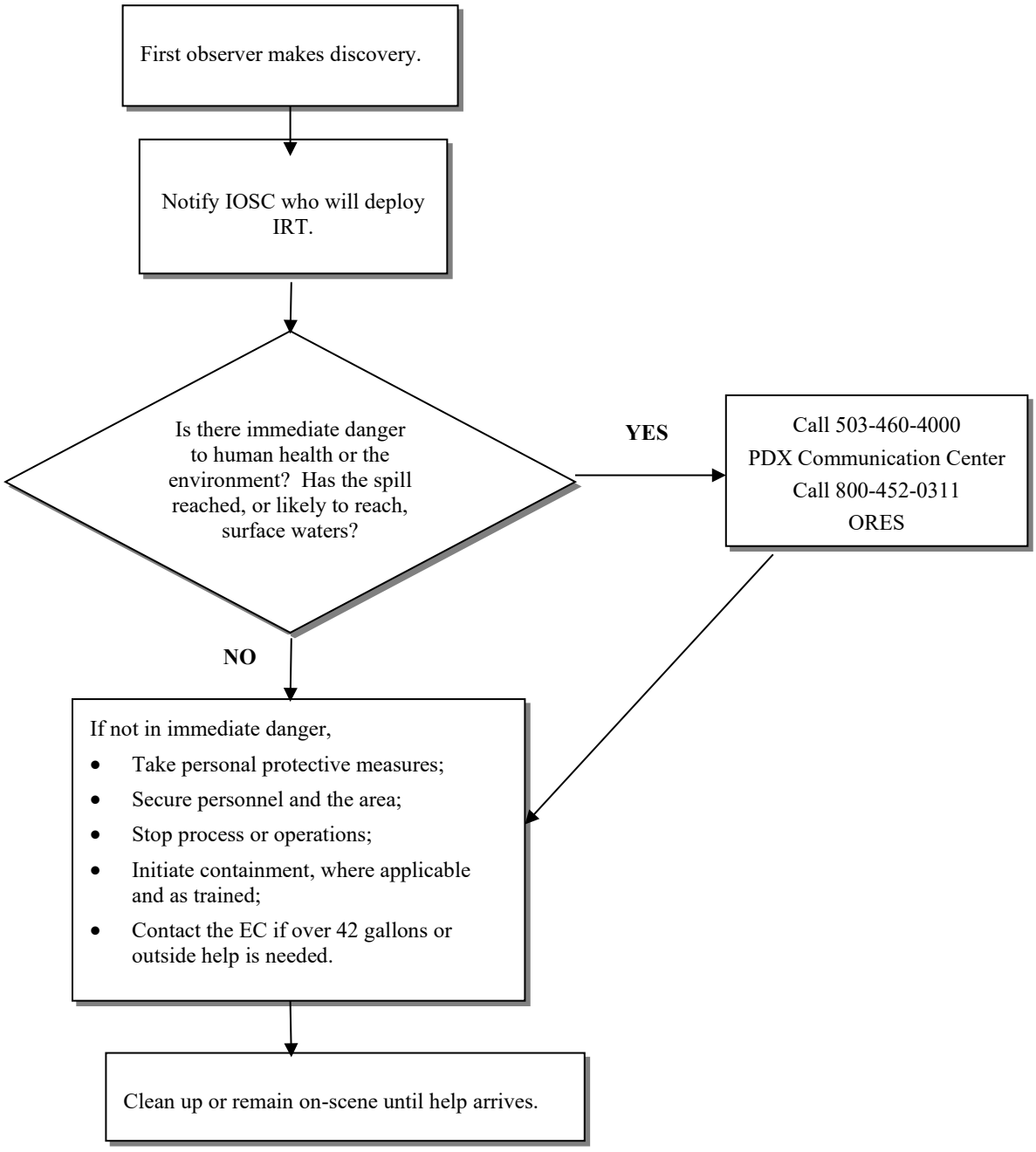


Figure 2-2: Initial Response to Spill Incident / Emergency

Spill Response Guide

1. **ANY EMPLOYEE** creating or observing a POL or hazardous material spill must **Notify the Installation On-Scene Coordinator IMMEDIATELY**, regardless of the type of material or the amount spilled. (IOSC/QI will notify the IRT and contact the EC, if necessary.)
2. Call 503-460-4000 (PDX Communication Center) if there is an imminent danger to human life and/or the environment and the IOSC/QI cannot be contacted.
3. **IOSC/QI SPILL RESPONSE REQUIREMENTS:**
   a. **IDENTIFY** the spilled material and evaluate the existing hazards at the site.
   b. **SECURE** personnel. SAFETY is the first priority. Resist the urge to rush into dangerous areas. If in doubt, stay out! Notify the Facility Manager (and, if necessary, the Airport Control Center) and seek help. The Regional and Corporate HS&E should be contacted if any of the criteria described in Section 2.1.4 are met, or if help from the corporate headquarters is necessary. Cooperate with public officials who happen upon the scene.
   c. **SECURE** the area. Set up an adequate perimeter. Limit access to the spill area. Keep observers and personnel not responding to the spill out of the contaminated area or other areas of possible exposure. If not in immediate danger, stop the flow after obtaining appropriate personal protective equipment. If possible, stop processes and operations that cause or contribute to the incident. Use common sense measures. Contain the release. Ensure that a mat covers floor drains. Shovel dirt, floor sweeping compound, absorbent material, etc., into the path of the release to contain it.
   d. **PROHIBIT** smoking, the use of lighters, matches, or other sparking devices in the area, and vehicles from entering the immediate area.
   e. **CONTAIN** the spill without unnecessarily exposing personnel to hazards, if possible. Use available materials and equipment. Spill kits may be located on vehicles hauling POL. Enter spill areas from upwind, uphill, or upstream.
   f. **PREVENT** spills from flowing into drainage ditches, storm drains, and bodies of water, if possible, using readily available materials. Use sand or soil as absorbent. Construct berms with soil or filled sand bags to restrict the flow.
   g. **CLEAN UP** all spills within the capabilities of the facility, no matter how small. Seek immediate response assistance if the spill is beyond your capability. Coordinate cleanup beyond your capability with the Facility Manager. **AND REMAIN ON SCENE** until additional help arrives, if outside help has been summoned.

Figure 2-3: Spill Response, Small Spill

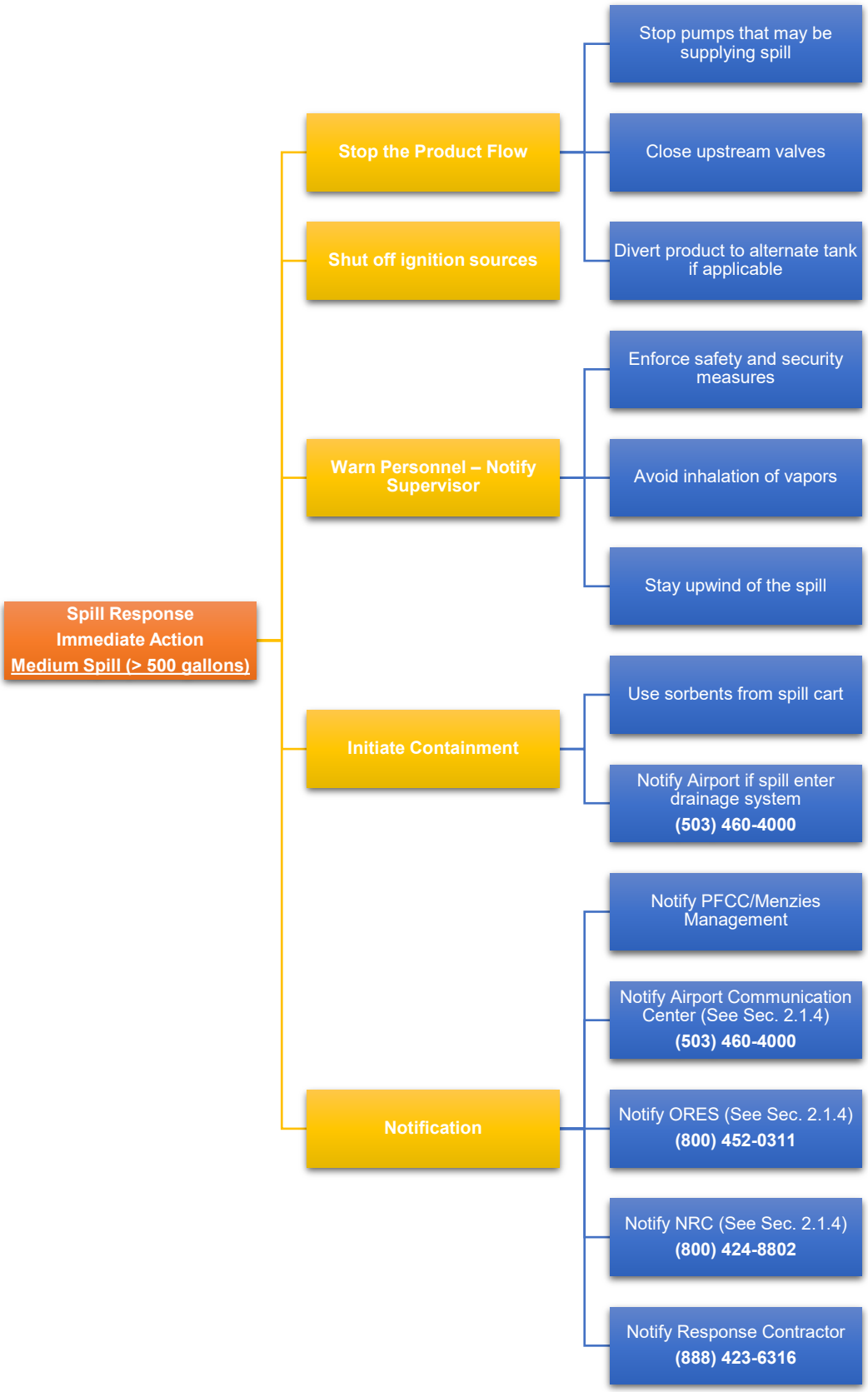


Figure 2-4: Spill Response, Medium Spill

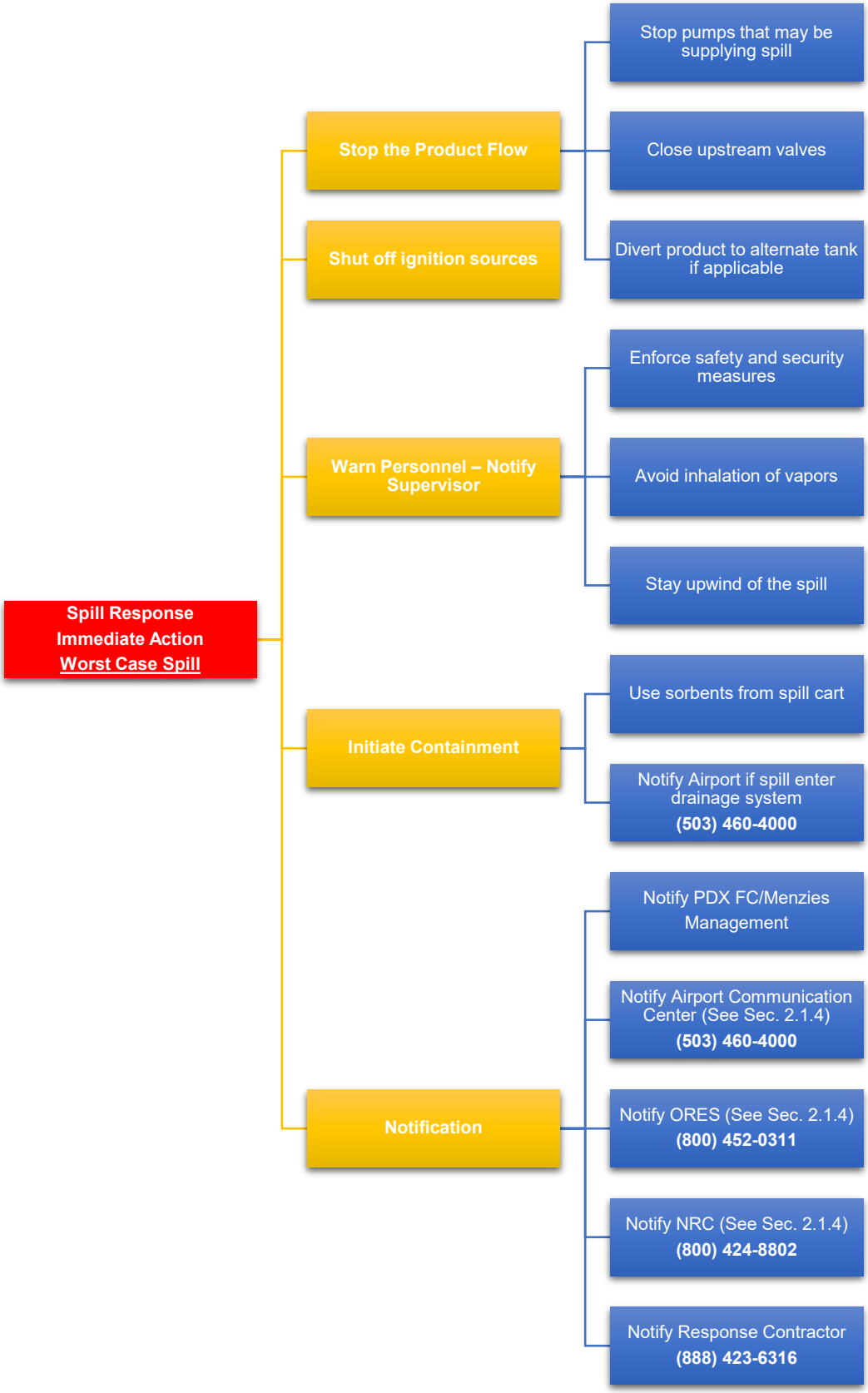


Figure 2-5: Spill Response, Worst Case Spill

2.1.4 Notification and Notification Procedures

Internal Notification Procedures

PDX FC/Menzies is equipped with a radio system that can be used to activate the IRT in the case of incidents that can be handled by facility personnel (if outside assistance is needed, see ***External Notification Procedures*** under this subsection).

The IOSC/QI will contact the EC if a spill or incident meets any of the following criteria:

- Equal to or greater than the "reportable quantity" of the spilled material;
- Is considered to be a "harmful" discharge (a harmful discharge is defined as a discharge of a hazardous material or hazardous waste that reaches surface water and affects the water quality standards, or causes a film, sheen or discoloration of the water or adjoining shorelines);
- If cleanup assistance is required (oral notification to EC within one hour of the spill event or discovery).

A completed Corporate Spill Incident Report and all supporting information must be submitted to the EC within 24 hours of, or on the first working day after, a spill event. The form can be found in Annex 3.8.

Copies of the Site Evacuation Drawings are placed throughout the PDX FC/Menzies facilities and are only referenced within the ICP.

External Notification Procedures

The IOSC/QI is responsible for notifying the fire department, if its assistance is needed for a spill or release. In case of fire, Airport Operations notifies the tower, which in turn notifies the airport fire department. The IOSC/QI is also responsible for notifying the OERS at (800) 452-0311 immediately of the incident *if* the EC cannot be contacted and either a reportable spill has occurred or assistance is required.

The IOSC/QI is responsible for notifying appropriate local authorities (including the applicable official identified by the Regional Contingency Plan, or if unavailable, the National Response Center (NRC) at (800) 424-8802) if an emergency incident could threaten human health or the environment outside of the facility or if evacuation of the local area is necessary.

Notifying the proper authorities depends upon the magnitude, possible environmental impact, and the possible effect upon human health and safety of an incident. The names listed in this section provide additional detail and are listed by functions within the nearby local community, the State of Oregon, and the federal government.

Community

ALL EMERGENCIES:	**CALL 503-460-4000 (PDX Communication Center)** **FIRE DEPARTMENT**
Police Department:	**911**
Ambulance Service:	**911**
Hospital	**911**
Providence Medical Center	**(503) 215-6000**

Contracts currently exist with local emergency response agencies/organizations or private contractors. .

US Ecology (primary)	**(800) 899-4672**
Terra Hydr. (secondary)	**(503) 625-4000**

State

The following release scenarios require notification to the State of Oregon:

(1) If spilled into waters of the state, or escape into waters of the state, is likely, any quantity of oil that would produce a visible oily slick, oily solids, or coat aquatic life, habitat or property with oil;

(2) If spilled on the surface of the land, any quantity of oil over one barrel (42 gallons); and

(3) An amount equal to or greater than the quantity listed in 40 CFR Part 302 -- Table 302.4 (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to July 1, 2002.

The State of Oregon requires immediate verbal notification to the OERS if any of the above applies for an incident.

Oregon State Emergency Response System (24 hours) **(800) 452-0311**
(*only if* EC or IOSC/QI cannot be reached)

OERS will contact other government agencies as appropriate (do not contact the Oregon Department of Environmental Quality [OR DEQ] directly).

The spill or release need not be reported to OERS if it occurs on public or private property and is known to the person owning or having control over oil or hazardous material or their designated representative; if it occurs on a surface impervious to the oil or hazardous material spilled or released and it is fully contained; and if it is completely cleaned up without further incident, including fixing or repairing the cause of the spill or release.

If a discharge in excess of 1,000 gallons occurs in a single event, or if two discharges (equal to or greater than 42 gallons of oil per event) occur in "harmful quantities" within a twelve month period, a copy of the ICP will be submitted to the EPA Region 10.

Federal

The enactment of the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA) created a listing of hazardous substances designated for special consideration under other major environmental legislative enactments (such as the Clean Air Act), as well as other substances that may present substantial danger to human health and the environment. Reportable quantities were established for specific hazardous substances and waste streams. A spill to the environment of any of the identified substances in quantities greater than its assigned reportable quantity must be immediately reported to the NRC by the EC.

National Emergency Response Center (24 hour) **(800) 424-8802**
(only if EC cannot be reached)

2.1.5 Local Communication

The communications system to be used during spill or release incidents will involve primary cellular telephones. The communication net will be supplemented with the use of the land base radio system utilized for communication with Menzies/PDX FC personnel and PDX traffic control center. For spill or releases within the fuel storage terminal, communication will be supplemented with intrinsically safe radios utilized by the response contractor. Following is a communication list for command structure personnel
.

Basic Local Communication Information		
Assignment	**Name**	**Method of Contact (P: phone #, C: cellular #, R: radio frequency, P: pager #)**
IOSC/QI	Scott Baker	C: (360) 619-2589
Alternate IOSC/QI	Robert Delanoy	C: (360) 721-0244
EC, Liaison & Information	D Bradley Keith	C: (602) 721-4145
Health & Safety	John Cisco	C: (971) 917-1417
Initial Response Team (IRT)	Facility personnel	R: 451.9250
Response Contractor	US Ecology	P: (800) 899-4672
	Spill Command	R: 158.445 output 150.9800 receiving
	Spill Path 1	R: 154.585 output 159.4800 receiving
PDX Communication Center	Fire & Police,	P: (503) 460-4000
PDX Ground Traffic Control	Ground Traffic	R: 121.9000
Oregon Emergency Response	State Fire & Police	P: (800) 452-0311
Public Water System	Portland Water Bureau	P: (503) 823-4874
PDX Weather	NOAA Portland Office	P: (503) 261-9246
KATU Television Station	Public Notification	P: (503) 231-4264
KPDX Television Station	Public Notification	P: (503) 906-1249

2.1.6 Mobilization of Resources

Both the IRT and the IOSC/QI will proceed to the incident location immediately. In case of fire, the facility will be evacuated. Emergency response equipment is available at various locations on the facility. If necessary, a command post to be used in coordinating spill control activities will be established at PDX Communication Center, phone (503) 460-4000. Emergency response equipment lists are located in the Emergency Equipment Inventory (Table 3-1) in Annex 3-2. The facility responders have been trained to know the location and proper use of all response equipment. The IOSC/QI's assessment will be ongoing as containment continues, until the incident has been terminated. Internal and external responders, if present, will integrate their capabilities under the direction of the IOSC/QI and the regulatory Incident Commander designated by the OERS. During the response period, the IOSC/QI will ensure that facility personnel properly follow emergency response procedures. In order to limit exposure to site hazards, the number of facility emergency responders will be limited to those who actively perform emergency operations. The primary response contractor is:

US Ecology Response Contractor (24 hour) **(800) 899-4672**
6211 N Ensign Street
Portland, Oregon 97217

2.1.7 Mitigating Actions

Actions taken to respond to an emergency event will be sufficient to address varying magnitudes of incident scenarios. Some incidents may be contained and terminated solely as a result of facility response. Other incidents may require supplementary assistance from external responders. If an incident occurs that is considered being "worst-case," the response will attempt to minimize destruction to the environment and will protect human health.

See Annex 3-3 "Spill Specific Procedures" for descriptions of actions to be taken in response to releases or spills of four distinct types of hazardous materials and/or wastes applicable to Menzies's operations. As with any spill, response time is critical to the effectiveness of containment, control and cleanup of the spill.

Following is the response time of the command personnel and support response contractors for a most probable discharge event.

Response Time

Name	Phone[1]	Response Time	Responsibility	Response Training
Scott Baker	360 619-2589	Immediate on-site < 1 hour off-site	IOSC/QI	40-hour HAZWOPER
Robert Delanoy	360-721-0244	Immediate on-site < 4 hour off-site	Alternate IOSC/QI	8-hour HAZWOPER
D Bradley Keith	602 721-4145	< 12 hours	IRT/HS & E/EC	24-hour HAZWOPER
Facility Personnel	Radio System	Immediate on-site	IRT	8-hour HAZWOPER
Notes: [1] – phone number to be used when person is not on-site				
Contractor	**Phone**	**Response Time**	**Contract Responsibility**	
US Ecology	800-899-4672	< 1 hour	15,000 barrels/day Follow the direction of the IOSC/QI. For example, contractor may be responsible to remove fuel spill with a vacuum truck, and based on volume and condition of fuel (i.e. contamination) may put the fuel back into an active fuel storage tank for non-contaminated jet fuel, or if necessary transport to a petroleum recycling center or possibly to a waste facility.	
Terra Hydr, Inc	503-625-4000	< 1 hour	15,000 barrels/day	
CCS	888-423-6316	< 1 hour	15,000 barrels/day	

2.1.8 Termination and Follow-up Actions

The emergency incident will be considered terminated when emergency response action is no longer necessary to provide containment of the spilled material. "Termination" means that containment will have been successfully executed, and the causal factors will have been eliminated.

EC's responsibilities

The responsibilities of the EC include:

- Seeking appropriate funding authority and initiating cleanup activities;
- Executing appropriate contracting and/or purchasing documents for required cleanup and other required services;
- Directing cleanup activities of the environment, facility, and equipment until all regulatory requirements have been met;
- Notifying local, state, and federal agencies that an incident has occurred. The EC will verbally notify OERS immediately of the incident if such notification has not been made by the IOSC/QI or the Facility Commander. Notification protocol for different types of emergency incidents are described in detail in Section 2.1.4.

Released materials and materials used to absorb or contain the materials will be collected, contained, and treated, if necessary. These materials will be stored in a manner such that they will not be able to contaminate storm water and their containers will not leak. Containers of released materials will be removed or isolated so that incompatibilities with other treated or stored waste will be removed until cleanup procedures are completed. The EC will determine if samples of residual material need to be taken and will evaluate what disposal options are best for the generated waste. Waste materials will be transported to an approved facility for recycling, treatment, or disposal. Emergency equipment will be cleaned and fit for its intended use before operations resume.

After an incident, the EC, facility personnel, and external responders, if appropriate, will review the quality of the emergency response. A notation will be made in Section 2.2.4, Table 2-2, Incident History. A review of the ICP will also be made to evaluate the internal procedures, the integration between internal and external response teams, and the performance of the response personnel. Section 1.6 provides details of the critique of the response and guidelines for plan review and modification.

2.2 Evacuation Plan

PDX FC/Menzies has developed a facility-wide evacuation plan to evacuate parts of the facility that are at a high risk of exposure in the event of a spill or other release. Evacuation routes are posted in each facility. The following considerations have been given in developing these evacuation plans:

(1) Location of stored jet fuel;

Refer to Figure 3-2A, Facility Site Plan for Jet A fuel storage tank locations.

(2) Hazard imposed by spilled material;

Refer to MSDS Sheet for hazard information on jet fuel.

Summary of hazards includes:

COMBUSTIBLE LIQUID - JET FUEL
RUPTURED TANKS MAY CONTAIN FLAMMABLE OR EXPLOSIVE VAPORS
INHALATION OF VAPORS/MIST MAY CAUSE RESPIRATORY SYSTEM IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS, SKIN CONTACT MAY CAUSE IRRITATION AND DERMATITIS
FIRE FIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS

(3) Spill Flow Direction;

Refer to Figure 3-3, **Facility Drainage Plan**.

PDX FC/Menzies has determined the general spill flow direction during accidental release of jet fuel to be as follows. In case of accidental discharge into the storm drains at PDX the product would travel west inside the storm drains down towards the Columbia Slough.

(4) Prevailing Wind Direction and Speed;

Call (503 284-6771 for a recording of hour by hour wind information at the airport tower.
Call (503) 261-9246 for the Weather Bureau that services the airport, as a history of the wind.

(5) Arrival route of emergency response personnel and response equipment;

PDX FC/Menzies IRT personnel and their contractors shall arrive via gate NA-71 off of Marine Drive for the Bulk Storage Facility, and via N.E. Air Trans Way for the Maintenance facility.

The fire department shall arrive by traveling approximately 1/2 mile west on Taxiway "I".

The airport police shall arrive by sending dispatched patrol car(s) from the airport to PDX FC/Menzies by the most direct route possible.

(6) Evacuation routes;

Refer to Figure 3-2A, **Facility Site Plan**

Always use good judgment in deciding evacuation routes. Personal safety is always first!

Use alternate routes of evacuation if the designated routes of evacuation are unsafe due to spilled jet fuel, fire hazard, tank or pipeline failure, or any other hazard that may jeopardize personal safety.

PDX FC/Menzies or regulatory agencies in charge may instruct workers, contractors, and visitors to use alternative routes of evacuation in time of emergency. Always follow instructions from the Incident Commander during a jet fuel spill, release, or fire.

(7) Transportation of injured personnel to the nearest emergency medical facility;

Refer to Figure 3-4, **Hospital Route**

(8) Centralized check-in area for evacuation validation (roll call):

PDX Fire Station, 5250 Northeast Marine Drive.

(9) Location of shelter at the facility as an alternative to evacuation.

PDX Fire Station, 5250 Northeast Marine Drive.

2.3 Industrial Activity Description

2.3.1 Site Location and Industrial Operations

Description of facility location in relation to nearest city:

The PDX FC is located at the Portland International Airport, Portland, Oregon. Portland International Airport is located along the banks of the Columbia River to the north and adjacent to the Columbia Slough to the south. The facility is approximately 6 miles northeast of downtown Portland and the Willamette River.

Primary purpose:

The facility provides Jet A fuel for all commercial aircraft at PDX. The facility SIC code is 5171 and the NAICS code is 424710. The PDX FC storage and distribution system is comprised of three operations (fuel storage, hydrant delivery system, and ground service equipment [GSE] fueling stations). Operations at the fuel storage include receiving Jet A fuel by pipeline (Kinder Morgan Pipeline), fuel storage, fuel quality control, filtration and pumping to the hydrant system. The operations of the hydrant system is to deliver Jet A through hydrant pits through hydrant servicers to aircraft, and tanker/refueller reloading for fueling aircraft at non-hydrant gates at two reload racks (North and South). The GSE operations include two fueling stations, one located on the north side of the airport and one on the south. The south refueling station includes one 12,000-gallon UST for storage of automotive gasoline. The north refueling station includes one 10,000-gallon AST for storage of automotive gasoline and one 10,000-gallon AST for storage of diesel. The normal daily throughput at the facility is 500,000 gallons per day of Jet A fuel.

Structures:

The facility is relatively flat. The majority of the facility is paved with asphalt. Square storm water catch basins collect surface runoff from the asphalt surfaces. A system of storm water drain conduits transfers storm water to a detention pond. The detention pond eventually discharges to the Columbia Slough.

Aboveground Storage Tanks:

Located in the northwest corner of the airport property is the Jet A fuel aboveground storage tanks facility. The AST storage facility consist of two Jet A ASTs (Tank #1, and #2) with a 840,000-gallon capacity (each), and one Jet A AST (Tank #3) with a 1,680,000-gallon capacity. The two 840,000-gallon ASTs are

field–erected steel tanks with epoxy-coated interiors and painted exteriors constructed in 1972 and retro-fitted in 1996 with double bottoms and secondary containment. Tank #3 is a field-erected steel tank with epoxy-coated interior installed in 1996.

Tank # 1A

Tank #2A

Tank #3

The three ASTs are contained within concrete dike structures fitted with high-density polyethylene containment membrane. The secondary containment structures provide in excess of 110 percent of the single largest AST including a 25-year rainfall event and fire suppression.

40 CFR Subparagraph 112.8(c)(3)(i) through (iv). Drainage of rainwater from containment areas into a storm drain should be treated unless the bypass valve is normally sealed closed, inspections of run-off rainwater ensure compliance with applicable water quality standards, the bypass valve is opened and sealed under supervision, and adequate records are kept.

Rainwater collects in the tank dike area. This area is monitored daily, the dike area post indictor valve is opened manually to drain any accumulated clean water. The water is visually inspected for a sheen by an

authorized personnel before the discharge is permitted. Water is discharge through a 500-gallon oil/water separator prior to release to the airports storm water drainage system.

Secondary Containment for Tank #1 and #2 showing drain in foreground.

A 10,000-gallon sump fuel AST is also located at the fuel storage facility. The sump fuel AST is a double walled self-contained steel tank. Airline quality assurance practices require that all tanks and filters be checked for water at least daily by drawing a sample. This practices is called sumping. The sumping of tanks, filters, and transport trucks generates approximately 40 gallons of sump fuel per day. Sump fuel is stored in unusable sump tank and is periodically picked up by a licensed used oil recycler for processing off-site.

Sump fuel AST (USF).

Jet A is received by the facility from an underground pipeline owned and operated by Kinder Morgan Pipeline Company. Fuel is received at a rate of 600-gallons per minute at a pressure of 40 psig. The

pipeline receiving filtration and control valves are owned and operated by Kinder Morgan. The pipeline operation is not covered under this plan.

<u>40 CFR Subparagraph 112.8(d)(1)</u>. Provide protective pipe coating or wrapping for buried piping installed after August 16, 2002. Corrosion protection by cathodic protection or other equivalent means must be installed as well.

All underground piping at this facility installed after August 16, 2002 is coated or wrapped and is cathodically protected to prevent corrosion. The cathodic protection system is tested annually; records are filed in accordance with normal business practices.

<u>40 CFR Subparagraph 112.8(d)(2)</u>. Cap or blank-flange any piping not in service or in standby service for an extended time.

The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank-flanged at the terminal point and marked as to the origin.

<u>40 CFR Subparagraph 112.8(d)(3)</u>. Properly design pipe supports.

All the pipe supports at this facility appear to be in good condition and appear to have been designed to minimize pipe abrasion and corrosion and allow for pipe expansion and contraction. At such time that any pipe supports are observed to be abrading or corroding any piping, the pipe support in question shall be correctly immediately.

<u>40 CFR Subparagraph 112.8(d)(4)</u>. Regularly inspect all aboveground valves, piping and appurtenances. Conduct integrity testing of all buried pipe at the time of installation, modification, construction, relocation, or replacement.

Regular site inspections of the facility's aboveground valves, pumps, piping and appurtenances are performed in accordance with ATA 103 and local regulations. These inspections include daily, monthly, quarterly and yearly checks. Integrity testing shall be performed at the time of installation, modification, construction, relocation or replacement of any piping at this facility in accordance with 40 CFR 112, API 570 and all applicable codes, rules and regulations.

Additionally, the hydrant system (and other underground piping) is leak tested 1.) annually in accordance with API 1110, 2). weekly with a high precision leak detection system, and undergoes daily monitoring of

the system's pressure log for behavior consistent with loss of piping integrity. Daily monitoring of the pump pressure recorder is performed to ensure prompt action should a loss of pipe integrity be suspected.

40 CFR Subparagraph 112.8(d)(5). Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

The facility is equipped with posted warning and informational signs and placards to inform of hazards and safety precautions as listed in, but not limited to, this section of the rule.

Reload Racks:

There are two (2) fully automated Jet A load racks located within the secured area of the airport. One is located east of Concourse E, south of Runway 10L-28R. The second load rack is located north of the cargo ramp south of Runway 28L-10R and east of Runway 20. The load racks are equipped with standard bottom loading/unloading connections, deadman controls, Scully grounding, and overfill protection systems. Fuel flow into the refuellers is controlled by a deadman device that is held by the operator while continually observing the fuel transfer. The load racks themselves have preset meters that stop the flow automatically when a pre-determined amount of fuel has passed through the meter.

North Reload Rack

The north reload rack is a temporary facility. Daily inspection are conducted for capture of rainwater/oily water from a Poly-Star secondary containment. Containment outlet valves are kept closed until inspection have been made. Outlet valves are attached to "mini-O/W" separators that are only opened after inspection and discharge to impervious surface that is collected by the airports storm water drainage system. Catch basin located at NE if jet lane has "Safe Drain" insert installed and sealed to catch basin and includes an isolation valve to provide containment

South Reload Rack

The south reload rack is equipped with a spill control pit (approximately 8,000-gallon storage capacity) equipped with a post indicator valve (that is in the normally closed position) and connected to a 1,000-gallon

oil/water separator. Storm water at the reload rack is collected and passed through pit then the oil/water separator prior to discharge to the airports storm water drainage system. A 2000-gallon temporary drain tank is used for routine maintenance of the rack system, fuel in the dispensing pipes and meters is drain to this tank and then removed, it is kept empty when in normal operation.

Ground Service Equipment Fueling Stations:

There are two (2) fully automated card lock auto gas dispensing stations located within the secured area of the airport. One is located east of Concourse E, south of Runway 10L-28R adjacent to the Jet A North Reload Rack. The second load rack is located north of the cargo ramp south of Runway 28L-10R and east of Runway 20. Both fueling stations are continuously monitored with a Veeder-Root TLS-350 monitoring system that records daily fuel volume dispensed for each vehicle, fuel volume in the AST, and dispenser meter reading. The system also reconciles with fuel deliveries for inventory control. Each fueling stations has a 12,000-gallon double-wall fiberglass AST installed in 1994. The GSE Fueling Stations utilize card-access to control the pumps. The airport is a restricted access site and is completely fenced and monitored 24/7. Fuel deliveries are received by transport tanker trucks. Each delivery is approximately 8,000-gallons, with approximately 6 loads delivered per month.

North Fueling Station

South Auto Gas Fueling Station

2.3.2 Security

The PDX FC/Menzies facilities are located inside the secured area of the PDX and are manned 24 hours per day 7 days per week. All Menzies employees working at this facility have been issued airport ID badges. These badges must be worn at all times while on duty and in the airport secured area.

2.3.3 Permit Status of the PDX FC/Menzies

PDX FC/Menzies is covered under Port of Portland's NPDES for storm water discharge: 101647, file #107220
PDX FCPDX FC South Fueling Station UST Operating Permit: 26-11865-1998-OPER

2.3.4 Site History of Spills or Releases

There has been one release or emergency incidents (i.e., federal or state-reportable release quantities) that have occurred at the PDX FC/Menzies operations. Table 2-2 provides a listing of emergency incidents that occurred at this facility. It also provides a description of each incident, corrective actions taken, and plans for preventing recurrence for each event.

Table 2-2: Incident History for PDX FC/Menzies					
Date	**Location in Facility**	**Date of Investigation**	**Incident Description/Quantity**	**Causal Factors**	**Corrective Action/ Recommendations**
Jan. 26, 2001	Perimeter road, SE corner of PDX	Jan. 26, 2001	Refueller overturn/ 1,400-gallons	Icy road conditions Freezing Fog	Immediately cleaned up./diver education
Mar. 16, 2009	Overfill of tanker during reloading	Mar. 16, 2009	Overfill during transfer between tankers, > 30 gallons	Overflow protection system failure, cable out of adjustment	Immediately cleaned up additional personnel to monitor loading from top of tanker
July 23, 2014	Valve Vault #13	July 23, 2014	Flange gasket failure in containment vault/ estimated 12,000 gallons contained	Valve inadvertently left closed resulting in system surge and gasket failure	Immediately isolated line and drained containment vault. Opened valve and checked all system flange connections for tightness.

2.3.5 Hazardous and Non-Hazardous Waste Generation

Hazardous Waste

Hazardous wastes are solid wastes that exhibit ignitability, corrosivity, reactivity, or toxicity characteristics, or are identified on any of the hazardous waste lists described in 40 CFR 261. Steps that should be taken to determine waste characteristic are the following:

- Determine if the material is a solid waste. Solid waste can be a solid, liquid, or contained gas. Under RCRA a solid waste is any material that you will no longer be using for its originally intended purpose and will be discarded, reclaimed, or processed, before use.
- Determine whether the waste is exempted or excluded from the hazardous waste regulations. Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of CFR Title 40 Part 261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under part 280 of this chapter are exempted as hazardous waste.
- Determine if the waste is a listed waste. Hazardous waste from non-specific sources (F-listed waste), hazardous waste form specific sources (K-listed wastes), and discarded commercial chemical products, off-specification species, container residues, and spill residues thereof (P- and U-listed wastes. As discussed above the most likely solid waste created during a spill event would be exempted and not a listed hazardous waste.
- Determine if the waste is a characteristic hazardous waste. Characteristic hazardous waste are those waste that exhibit ignitability, corrosivity, reactivity, or toxicity.

PDX FC/Menzies does not currently generate hazardous waste at this facility based on generator knowledge and documentation through material safety data sheets and that it can be classified as a CESQG.

Contaminated spill response media should be handle with care, stored in compatible containers for storage and transportation. Contaminated spill response media and/or soil should be profiled for disposal or recycling as described above. Personnel should utilize appropriate personal protective equipment when handling contaminated spill response media in accordance with 29 CFR 1910 OSHA subpart H 1910.120.

Non-Hazardous Solid Wastes

Non-hazardous solid wastes are materials that are abandoned, recycled, or considered inherently waste-like (all discarded materials). Some discarded materials are excluded from being wastes by 40 CFR 261.

2.4 Potential Pollutant Sources

Locations within the PDX FC/Menzies operations that are potential pollutant sources of environmental contamination are listed below:

- Jet A ASTs storage area;
- Used Oil AST storage area;
- Refueling operations at the Gates.
- Jet A Reload Racks
- GSE Fueling Stations

A more detailed narrative of each identified potential pollutant source is discussed in the upcoming subsections. Table 2-3, located at the end of Section 2.3.8, provides a summary of these locations, including substances of concern present and approximate quantity, likelihood of pollutant release to the environment and pathway, and subsection discussed. The likelihood of pollutant release to the environment, presented in the table, is ranked according to the potential for a spill or leak to reach the environment (remote, low, and

high). The ranking serves to identify areas where facility personnel must pay particular attention to ensure that proper BMPs are followed to prevent a release and to identify sites where structural modifications may be needed.

2.4.1 Jet A ASTs Storage Area

Two 840,000-gallon and one 1,680,000 tanks contain Jet A fuel used to fill commercial aircraft. They are made of steel, with double bottoms. A concrete containment structure that has a 110 percent capacity surrounds each tank. The tanks are equipped with automatic shut-off devices to prevent overfilling. The potential for release is low. A release from the containment structure would be directed to the storm sewer system. The potential for release as a result of containment failure is remote; however, if a release occurs due to containment failure, the fuel would flow into the storm sewer system and eventually into the Columbia Slough and possible downstream into the Columbia River.

Secondary containment for ASTs.

A 10,000-gallon AST used for collecting sumping fuel is also located at the PDX FC Bulk Storage Terminal. The Sump Fuel AST is double-walled and built to UL 142 standards. The audible high-level alarm for the Sump Fuel AST is connected to the control room at the AST Bulk Storage Facility. The control room is constantly attended. The tank also is fitted with a visual gauge for inspecting volume stored in the AST. The maximum anticipated amount of sump fuel that could be released is 5,000-gallons; however, the potential for release is low because of the secondary containment provided by the AST.

10,000-gallon Sump Fuel AST.

BMPs are to be implemented in accordance with baseline BMPs (Annex 3.4.1) and activity-specific BMPs for Aboveground Storage Tanks (Annex 3.4.4), BMPs for Motor Pools and Mobile Fuel Storage (Annex 3.4.7), and BMPs for Fueling Stations (Annex 3.4.8).

2.4.2 Refueling Operations at the Gates

The majority of Jet A fuel is delivered from the hydrant system to the aircraft by the use of nine (9) hydrant servicers that connect a high pressure hose to the hydrant pit and another high pressure hose to the aircraft. This system serves 46 gates located at PDX's main terminal buildings. There are a total of 80 hydrant pits located at these gates. Jet A is pumped into the system via one or more of five (5) 1,000-gallon per minute pumps. Flow and pressure in the system is controlled at the AST Bulk Storage Facility by flow metered and pressure sensors. Its status in continuously monitored by a computer and displayed on a terminal located at the in the operations building control room.

Hydrant pit (typical).

Refueller delivered fuel uses only one hose connected to the aircraft. Standard under wing fueling nozzles are used to connect the aircraft. Fuel flow for both the hydrant servicers and the refuellers are controlled by a deadman device held by the fuelers. Standard under wing fueling nozzles are used to connect to the aircraft. Fuel flow from the refueller is controlled by a deadman device held by the operator. The operator continuously observes the aircraft's fuel gauges at the fueling connection to ensure overfilling does not occur. In the event of a problem, the operator immediately stops the fuel flow by releasing the deadman

device. There is no secondary containment on the aprons, and spills would follow the slight slope of the apron to the catch basins located throughout the apron and connected to the storm sewer system. Spill kits are stored on the apron in case of a small release. The possibility of a spill occurring is low.

Hydrant servicer fueling aircraft.

Refueller fueling aircraft.

BMPs are to be implemented in accordance with baseline BMPs (Annex 3.4.1) and activity-specific BMPs for Aboveground Storage Tanks (Annex 3.4.4).

2.4.3 Jet A Reload Racks

There are two (2) fully automated Jet A load racks located within the secured area of the airport. One is located east of Concourse E, south of Runway 10L-28R. The second load rack is located south of the cargo ramp south of Runway 28L-10R and east of Runway 20. The potential for release as a result of containment failure is remote; however, if a release occurs due to containment failure, the fuel would flow across the pavement into catch basins connected to an oil/water separators prior to discharging into the storm sewer system. The reload areas are equipped with emergency stops that will shut down flows to the rack within 20 seconds, therefore the potential maximum release would be approximately 116 gallons at 350 gpm. Personnel are stationed with a deadman control attached during fueling operations which once released immediately stop flow. The potential for release during fueling operations is low because of the secondary containment and the oil/water separators.

North Reload Rack.

South Reload Rack.

BMPs are to be implemented in accordance with baseline BMPs (Annex 3.4.1) and activity-specific BMPs for Fueling Stations/Reload Racks (Annex 3.4.8).

2.4.4 GSE Fueling Stations

PDX FC/Menzies operates two GSE fueling stations. The South GSE fueling station has one 12,000-gallon underground storage tank that is used to store unleaded gasoline. The North GSE Fueling station has one 10,000-gallon unleaded AST and one 10,000-gallon diesel AST. The GSE Fueling Stations utilize card-access to control the pumps. The airport is a restricted access site and is completely fenced and monitored 24/7. All Menzies personnel are issued access badges which control access. The USTs are made of fiberglass, double-walled and built to Underwriters Laboratories Standard). The USTs are equipped with automatic shut-off devices to prevent overfilling. When filling vehicles at the fueling station, an automatic shut-off switch controls fuel flow. There is a manually operated lever to activate the fuel pump. The potential for release as a result of containment failure is remote; however, if a release occurs due to containment failure, the fuel would flow across the pavement into catch basins connected to an oil/water separators prior to discharging into the storm sewer system. The GSE fueling stations are similar the reload racks in that personnel are stationed to observe if a release occurs; the dispensing nozzle serves as the deadman control. The GSE station has an emergency stop for immediate shut down of the flow to the dispensers. Therefore, the maximum probable spill at the GSE fueling station would be 20 to 40 gallons, based on 20 gpm flow. The potential for release during fueling operations is low because of the secondary containment and the oil/water separators.

North GSE fueling station.

South GSE fueling station.

BMPs are to be implemented in accordance with baseline BMPs (Annex 3.4.1) and activity-specific BMPs for Fueling Stations/Reload Racks (Annex 3.4.8).

Table 2-3: Summary of Potential Pollutant Sources and Incident Prediction for PDX FC/Menzies				
Potential Pollutant Sources	**Pollutants of Concern Present**	**Approximate Quantity Stored or Maximum Storage Capacity (gallons)**	**Potential for Pollutant Release to Environment/Rate and Direction of Flow(*)**	**Section Discussed**
Jet A ASTs Storage	Jet A	2- 840,000 gallons ea. 1- 1,680,000 gallons	Remote – ASTs equipped with secondary containment; flow is to secondary containment if release occurs during fuel transfer; flow is to the apron storm sewer system if there is containment failure.	Section 2.4.2
Refueling Operations at the Gates	Jet A	Up to 1,000 gallons per minute	high – no secondary containment; flow would follow the slope of the apron to the storm sewer system.	Section 2.4.5
Jet A Reload Racks	Jet A	Up to350-gallons per minute	low – flow is diverted to a containment pit in the event of a release on the containment pad for the south reload rack, otherwise storm water flow is diverted through an oil/water separator prior to discharge to the storm water sewer system.	Section 2.4.6
GSE Fueling Stations	Unleaded Gasoline and Diesel	Up to 20-gallons per minute	low – in the event of a release on the containment pad flow is diverted through an oil/water separator prior to discharge to the storm water sewer system.	Section 2.4.7

Note: (*) - depending on quantity and location, all releases have potential to contaminate groundwater or storm water, unless otherwise noted.
remote - highly unlikely for a release as adequate structural containment provisions and/or storage tank designs are present to contain any spill or leak. For example, a waste storage building with secondary containment or a double-walled AST.
low - minimal potential for release, as containment provisions are in place to contain most spills/leaks, unless of significant quantity. For example, drums of waste liquid stored on a concrete pad with no berms. The pad would be sufficient to contain small spills, but larger spills, if not quickly cleaned up, could flow off pad and onto grounds.
high - strong potential for release as there are no structural containment provisions to contain a spill. For example, drums of liquid material stored outdoors directly on the ground or an unpaved vehicle fueling area.

3.0 ANNEXES

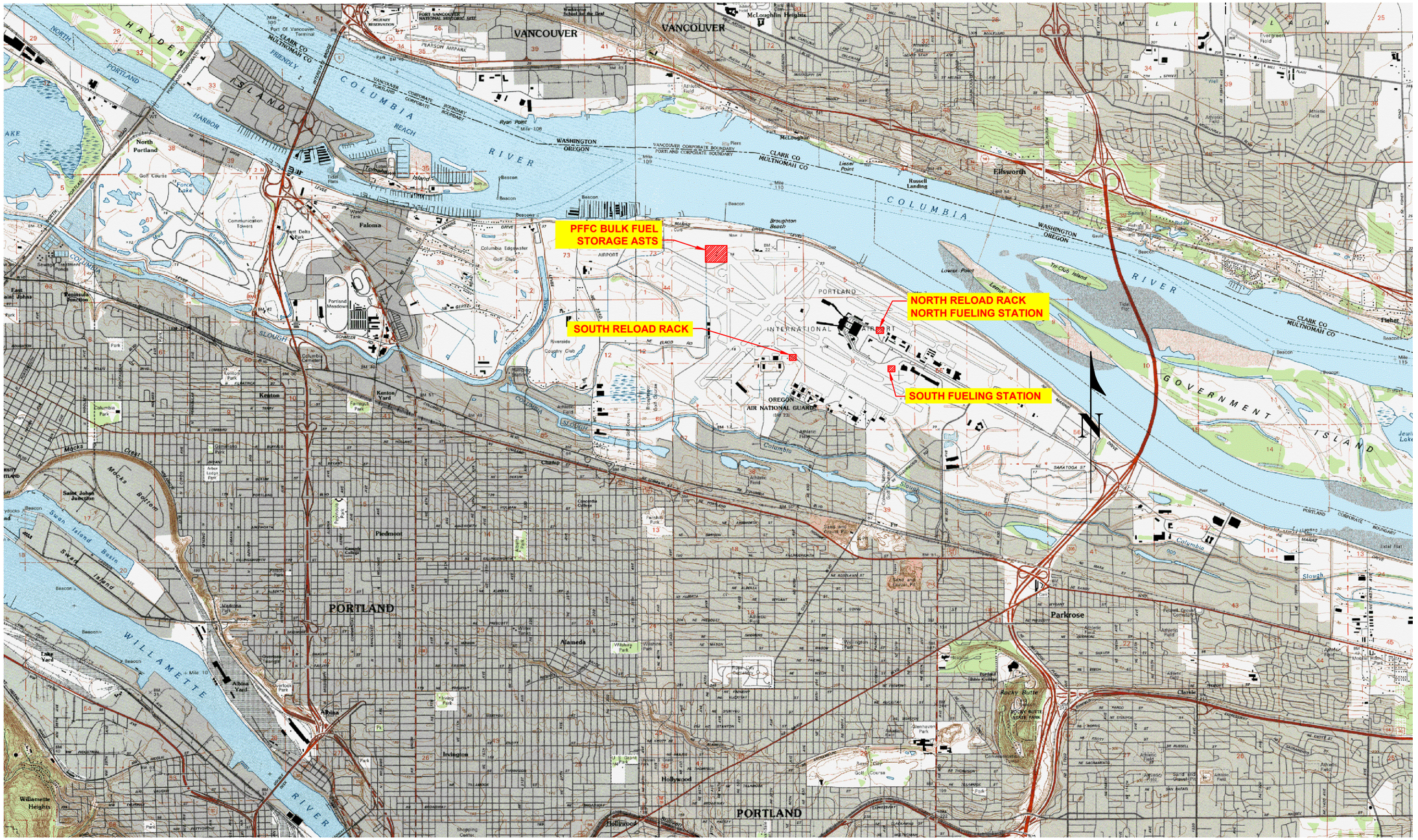
The content of the annexes supplements the material presented in the Core Plan. The annexes include facility maps and detailed supporting information on specific response techniques, such as procedures to address specific kinds of common spills and releases. It also includes BMPs as they pertain to activities at the site. Several sections address general operational BMPs, including inspections, training, and record keeping. Necessary documentation used to demonstrate regulatory compliance and checklists that can be used to ensure compliance and promote good housekeeping are included in the Annex 3.8.

3.1 Facility Maps and Drawings

The following maps and drawings are included in the ICP:

- A map showing the topography of the facility (Site Topographic Map);
- A drawing illustrating the structures, AST, reload racks, etc., on the facility (Site Facility Drawing) as well as general evacuation;
- A drawing illustrating the route of storm water runoff from the facility (Site Drainage Drawing); and
- A map showing the Hospital routes from the airport (Hospital Route)

Figure 3-1: Site Topographic Drawing



BASE MAP FROM USGS 7.5' QUADS; MT TABOR, OREGON 1990, AND PORTLAND, OREGON 1990

0 2,000 4,000 8,000

SCALE IN FEET

REVISION INFORMATION			
MILESTONE	DATE	REVIEWING AGENCY	
FRP-ICP			

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc.

668 NW 13TH AVENUE, SUITE 104
CAMBIE, OREGON 97010
503-266-2122

MENZIES AVIATION
PFFC - PORTLAND INTL AIRPORT
PORTLAND, OREGON

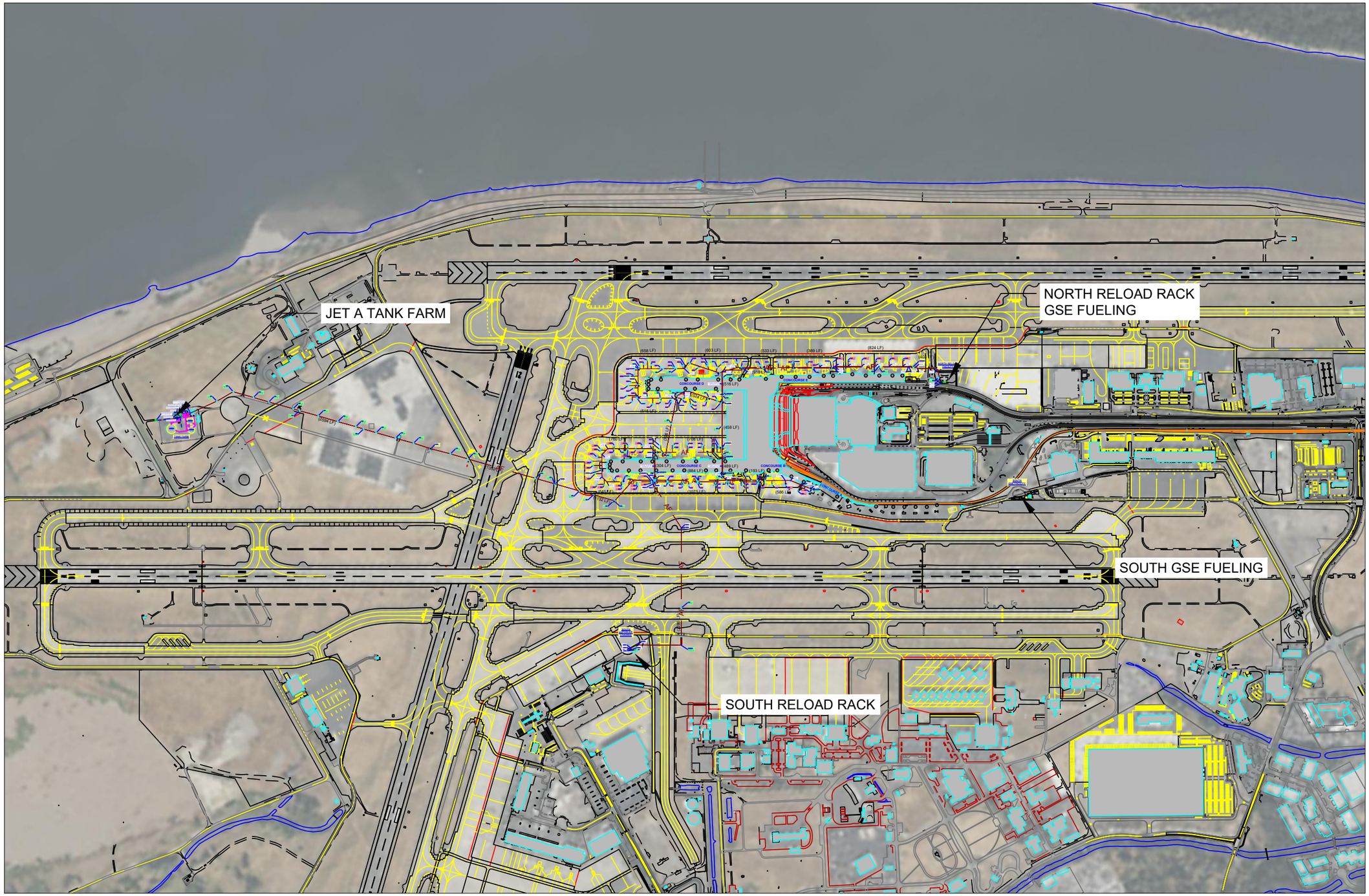
SITE TOPOGRAPHIC MAP, FIGURE 3-1

DATE	11/28/16
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	1"=20'

SITE PLAN

SHEET 1 OF 1

Figure 3-2: Site Facilities Drawing



0 1000 2000 Feet

REVISION INFORMATION		
MILESTONE	DATE	REVIEWING AGENCY
ICP–FRP	11/2016	
ICP–FRP UPDATE	8/2023	

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc

6910 NW 1ST AVENUE, SUITE #19
CANBY, OREGON 97013
(503)-266-2122

MENZIES AVIATION
PDX FC, PORTLAN INTL AIRPORT
PORTLAND, OREGON

FACILITIES LOCATION, FIGURE 3–2

DATE	08/15/23
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	

SITE PLAN

SHEET 1 OF 1

POST INDICATOR VALVES
FOR 2ND CONTAINMENT
NORMALLY CLOSED

CONTROL ROOM

LPD
18.51'
13.25'

HPV
TOL: 18.98'
INV: 14.00'

POINT OF GROUND ENTRY
INV: 14.60'

HYDRANT PUMPS AND FILTERS

PIPELINE RECEIPT MANIFOLD

SLOP TANK

OIL/WATER SEPARATOR
(U/G, 2,000 GALLONS)

FIRE FOAM BUILDING

UNDERGROUND TANK

HYDRANT PIPELINE (UNDERGROUND)

GENERAL EVACUATION DIRECTION

SPILL KIT

OFFICE

PDX CATCH BASIN

TANK #1A (860,000-GAL)

TANKS #2A (860,000-GAL)

TANK 1
20,000 BBL
67'Ø x 32'H

TANK 2
20,000 BBL
67'Ø x 32'H

TANK 3
40,000 BBL
95'Ø x 32'H

TANK FARM

TANK #3 (1,680,000-GAL)

SECONDARY
CONTAINMENT
BASIN DRAIN

0 100 200 Feet

N E S W

REVISION INFORMATION

MILESTONE	DATE	REVIEWING AGENCY
ICP–FRP	11/2016	
ICP–FRP UPDATE	8/2023	

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc

6910 W 1ST AVENUE, SUITE 109
CANBY, OREGON 97013
(503)-266-2122

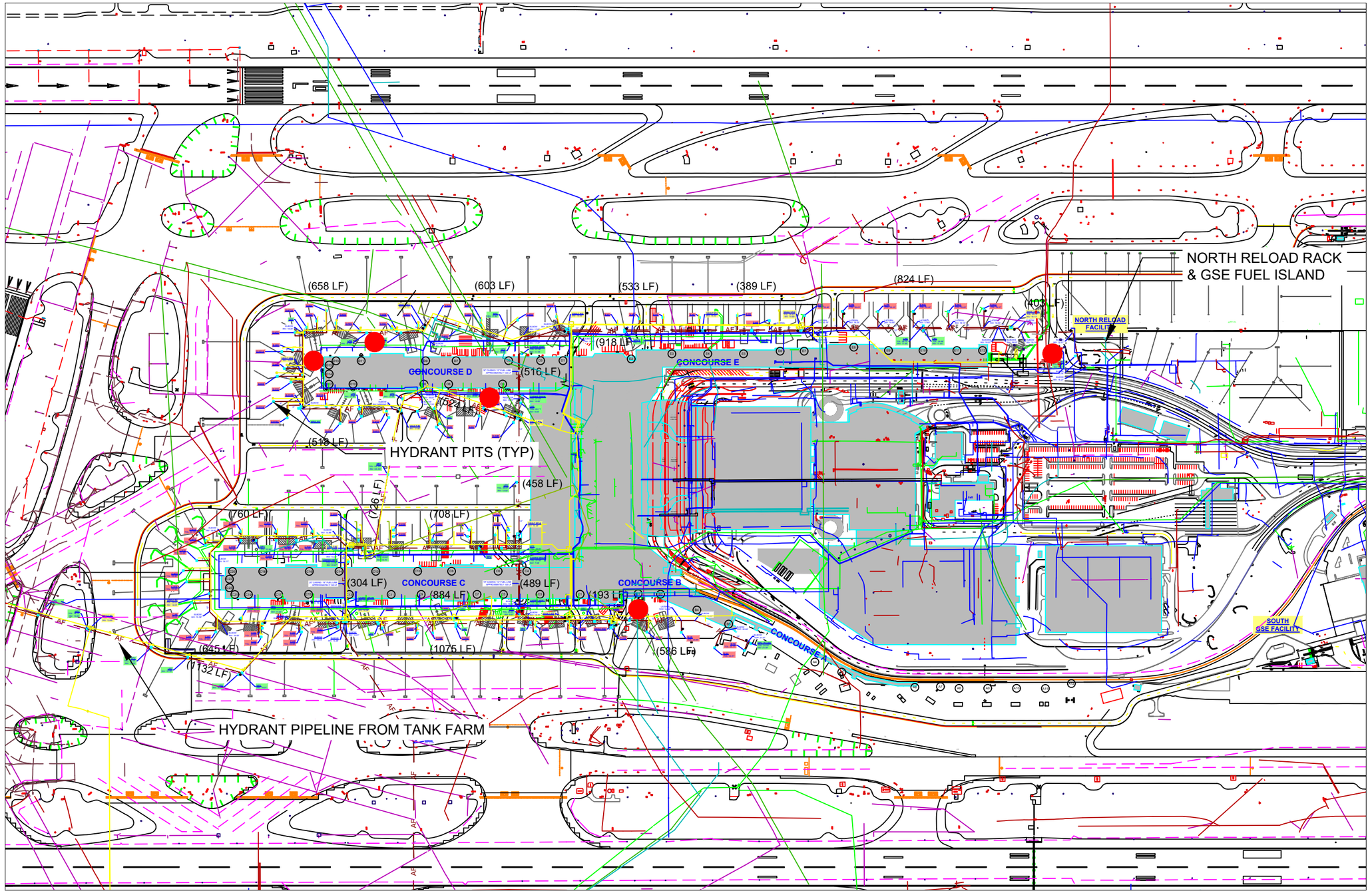
MENZIES AVIATION
PDX FC, PORTLAN INTL AIRPORT
PORTLAND, OREGON

TANK FARM FACILITIES PLAN, FIGURE 3–2A

DATE	08/15/23
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	

SITE PLAN

SHEET 1 OF 1



REVISION INFORMATION			
MILESTONE	DATE	REVIEWING AGENCY	
ICP–FRP	11/2016		
ICP–FRP UPDATE	8/2023		

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc
600 NW 1ST AVENUE, SUITE 109
CANBY, OREGON 97013
(503)-266-2122

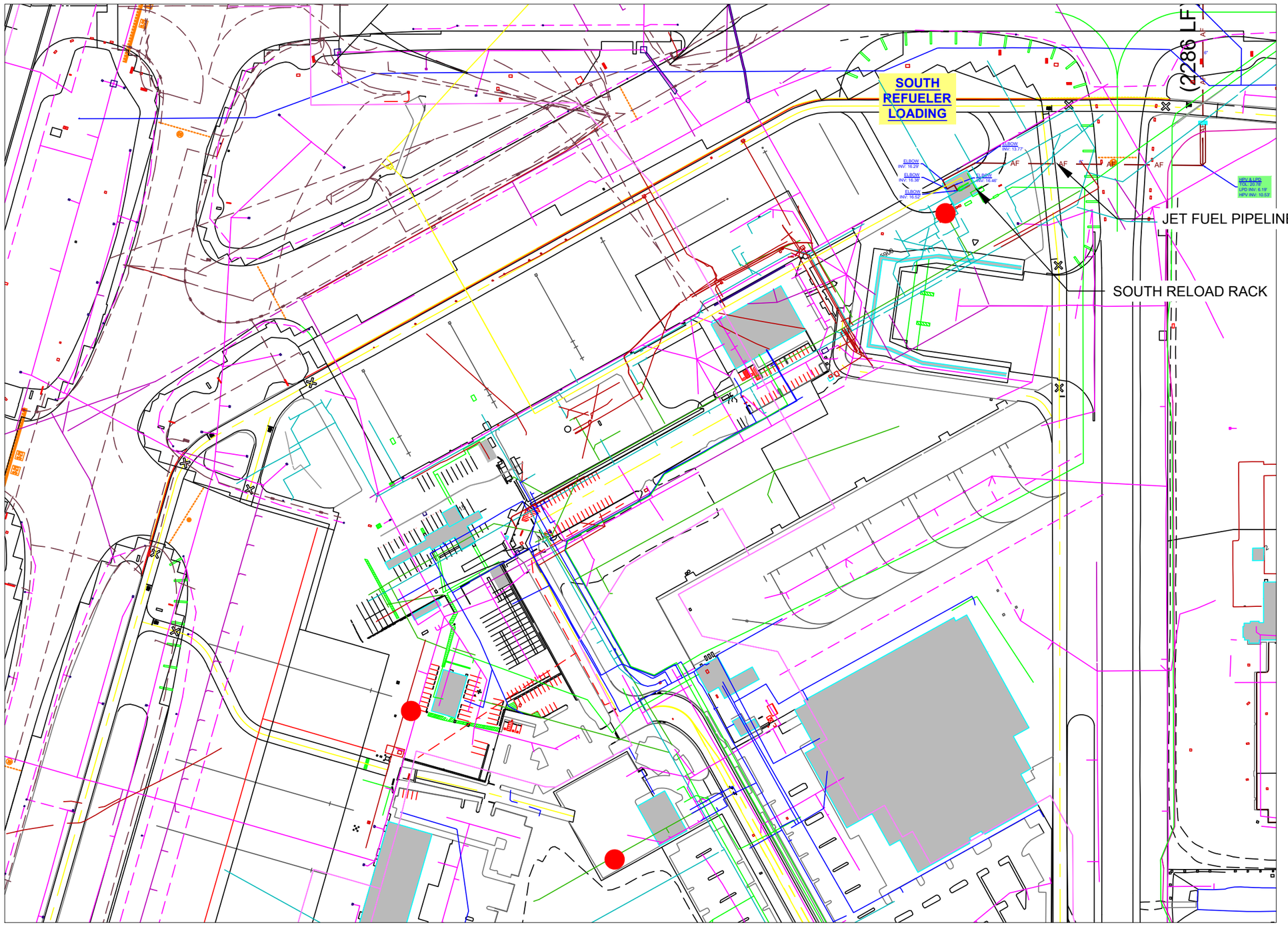
MENZIES AVIATION
PDX FC, PORTLAN INTL AIRPORT
PORTLAND, OREGON

TERMINAL & NORTH RELOAD, FIGURE 3–2B

DATE	08/15/23
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	

SITE PLAN

SHEET 1 OF 1



SPILL KIT OR CART LOCATION

0 200 400 Feet

REVISION INFORMATION			
MILESTONE	DATE	REVIEWING AGENCY	
ICP–FRP	11/2016		
ICP–FRP UPDATE	8/2023		

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc

6910 NW 1ST AVENUE, SUITE 109
CANBY, OREGON 97013
(503)-266-2122

MENZIES AVIATION
PDX FC, PORTLAN INTL AIRPORT
PORTLAND, OREGON

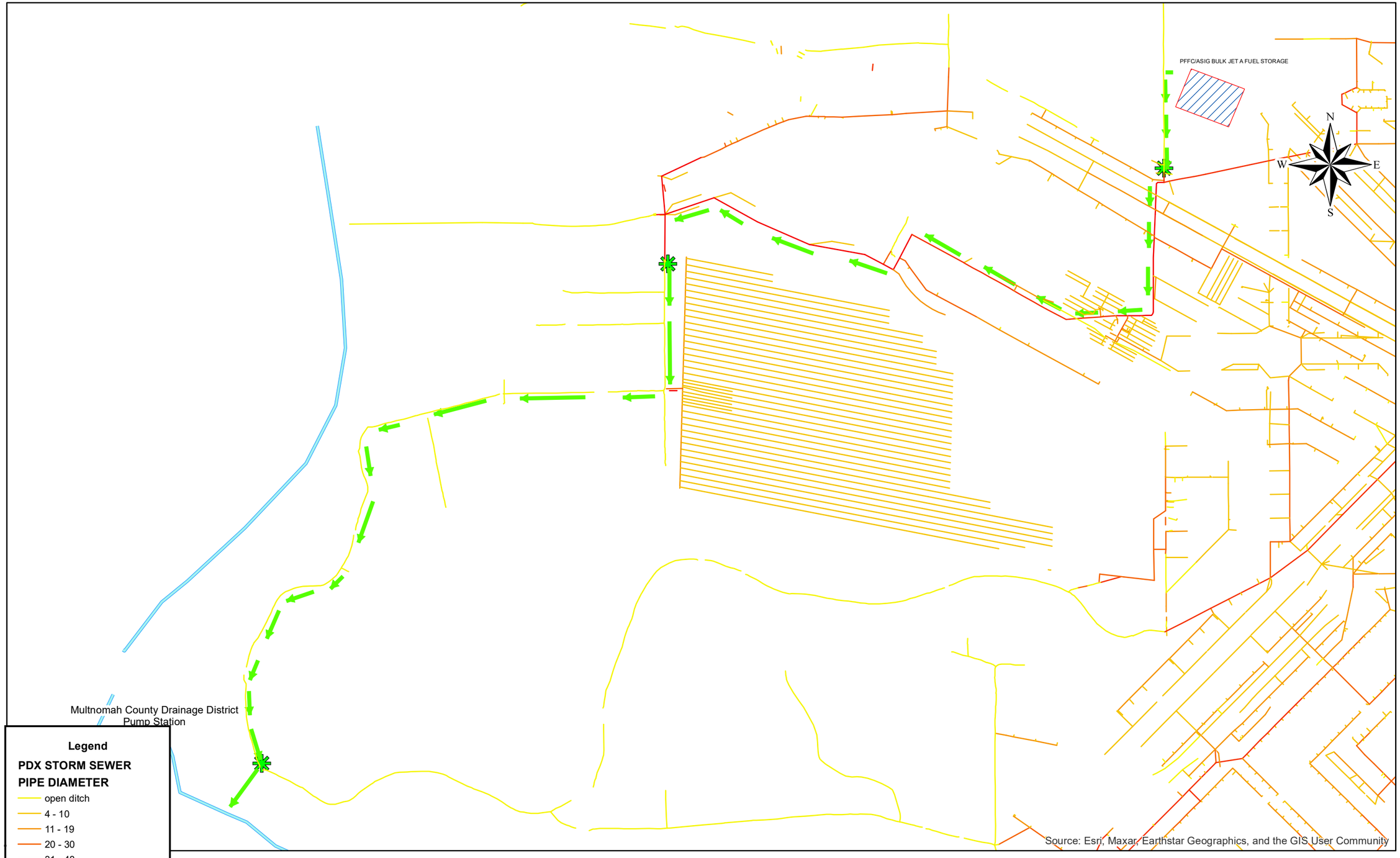
SOUTH RELOAD, FIGURE 3–2C

DATE	08/15/23
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	

SITE PLAN

SHEET 1 OF 1

Figure 3-3: Site Drainage/Spill Response



Legend

PDX STORM SEWER
PIPE DIAMETER

- open ditch
- 4 - 10
- 11 - 19
- 20 - 30
- 31 - 48
- 49 - 84
- SPILL FLOW PATH
- PDF FC BLDG
- Columbia Slough
- SPILL RESPONSE AREA

0 295 590 1,180 1,770 2,360 Feet

MENZIES AVIATION

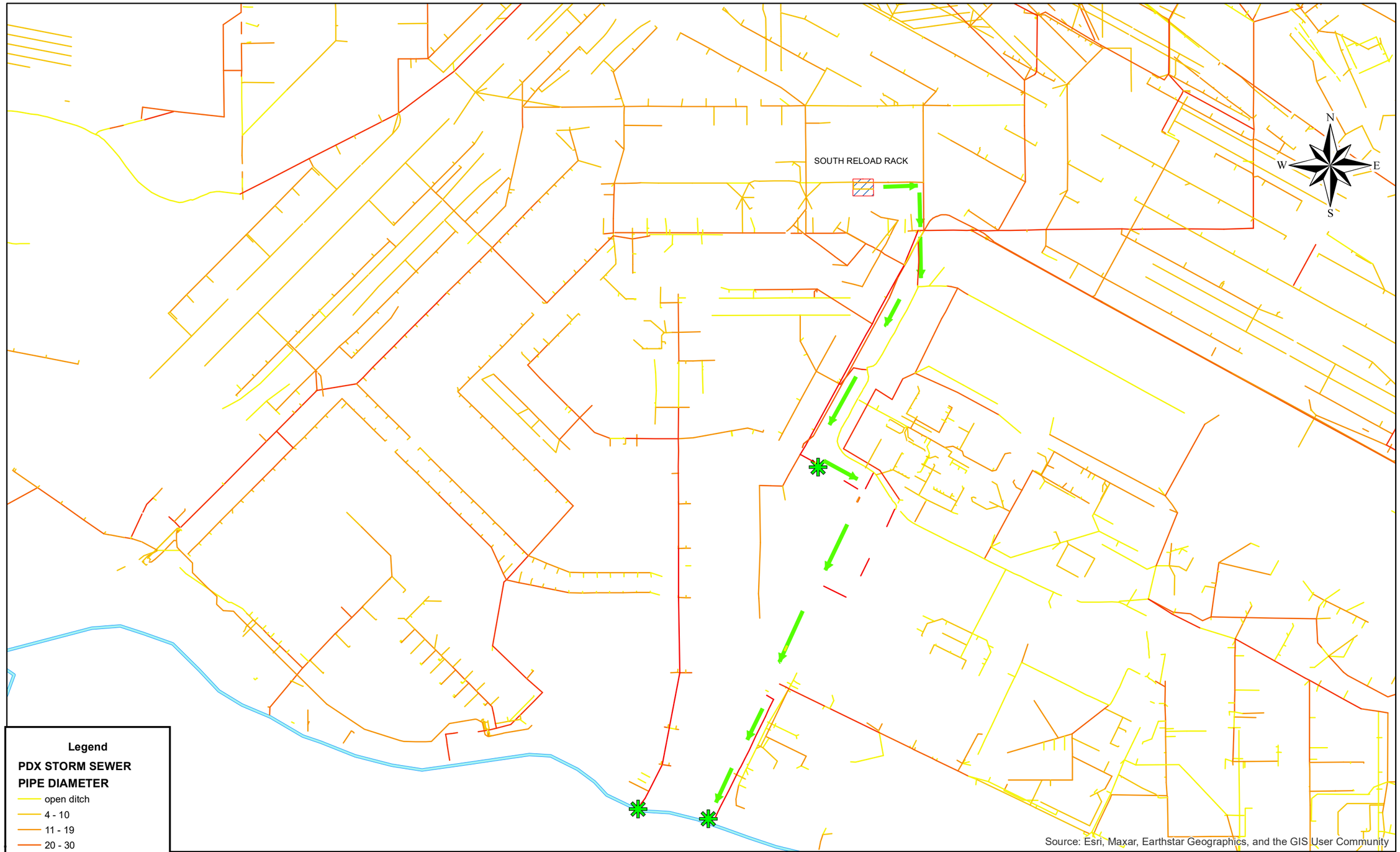
PDX FC/MENZIES PORTLAND INTERNATIONAL AIRPORT

PORTLAND, OREGON

SPILL RESPONSE SITE DRAINAGE, AST FUEL STORAGE FACILITY

[redacted]

FIGURE
3-3A



[redacted]

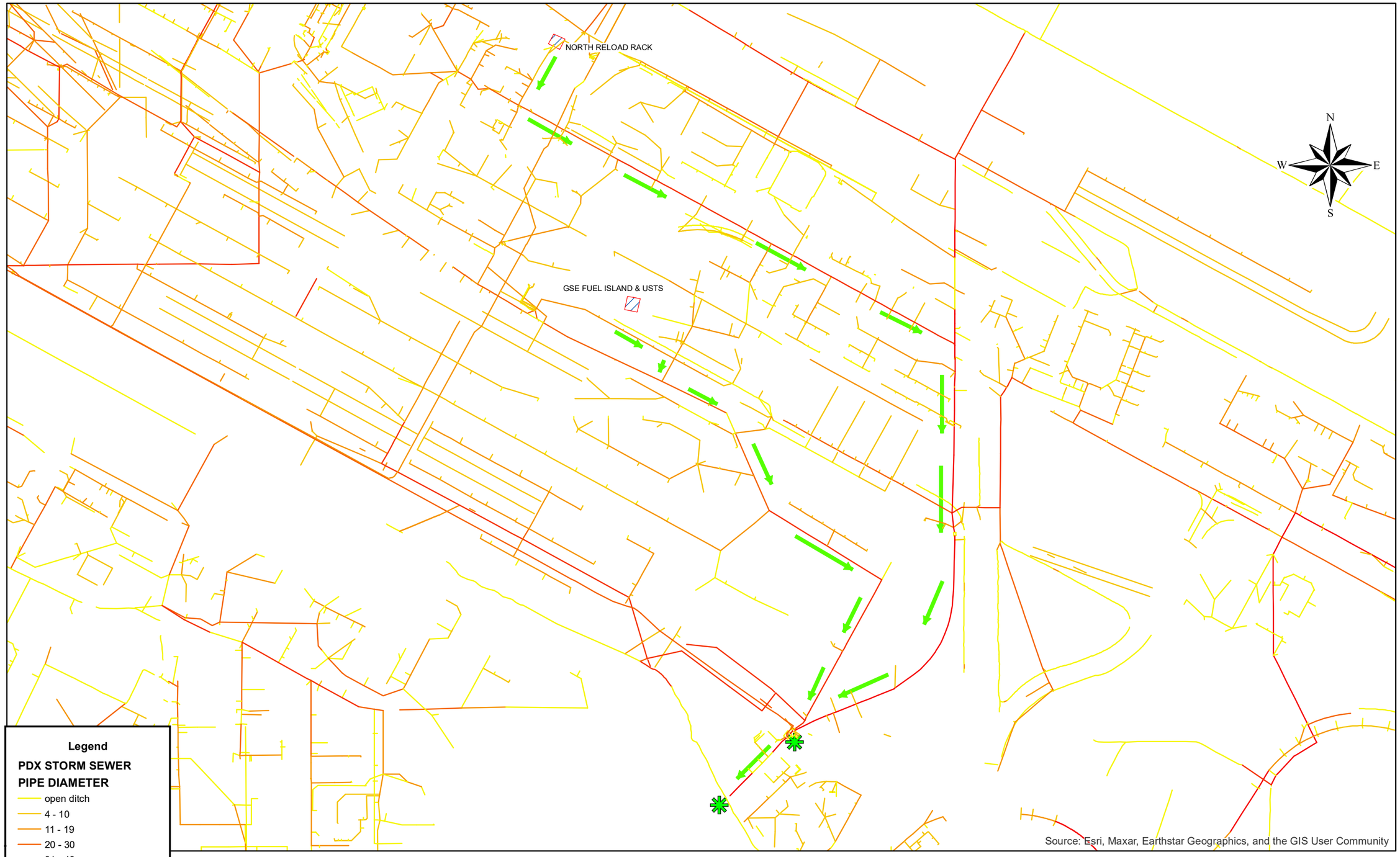
MENZIES AVIATION

PDX FC/MENZIES PORTLAND INTERNATIONAL AIRPORT

PORTLAND, OREGON

SPILL RESPONSE SITE DRAINAGE, SOUTH RELOAD

FIGURE
3-3B



Legend

PDX STORM SEWER PIPE DIAMETER

- open ditch
- 4 - 10
- 11 - 19
- 20 - 30
- 31 - 48
- 49 - 84
- SPILL FLOW PATH
- PDF FC BLDG
- Columbia Slough
- SPILL RESPONSE AREA

0 212.5 425 850 1,275 1,700 Feet

MENZIES AVIATION

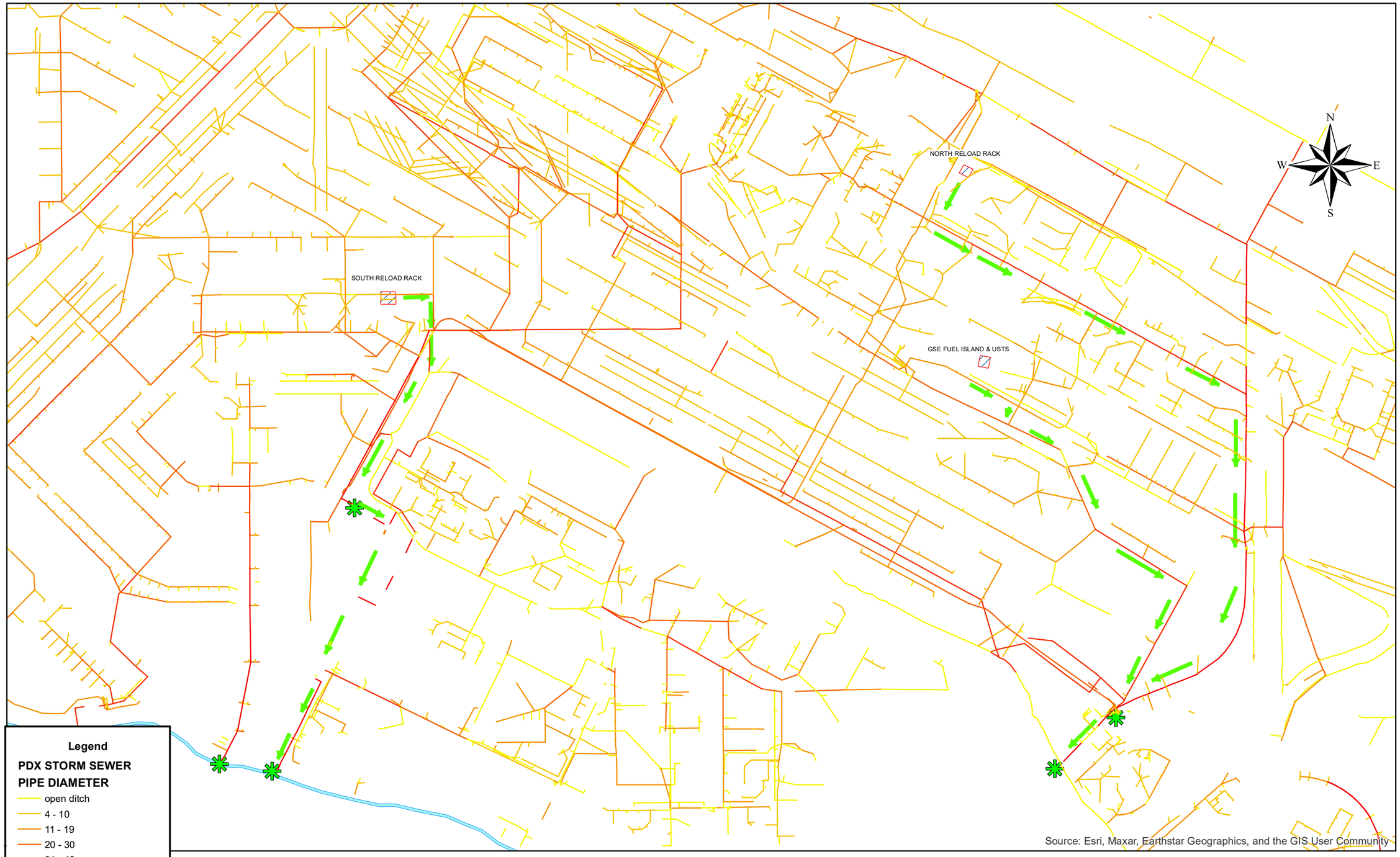
PDX FC/MENZIES PORTLAND INTERNATIONAL AIRPORT

PORTLAND, OREGON

SPILL RESPONSE SITE DRAINAGE, NORTH RELOAD & GSE FUEL ISLAND

[redacted]

FIGURE
3-3C



Legend

PDX STORM SEWER PIPE DIAMETER

- open ditch
- 4 - 10
- 11 - 19
- 20 - 30
- 31 - 48
- 49 - 84
- SPILL FLOW PATH
- PDF FC BLDG
- Columbia Slough
- SPILL RESPONSE AREA

0 262.5 525 1,050 1,575 2,100 Feet

MENZIES AVIATION

PDX FC/MENZIES PORTLAND INTERNATIONAL AIRPORT

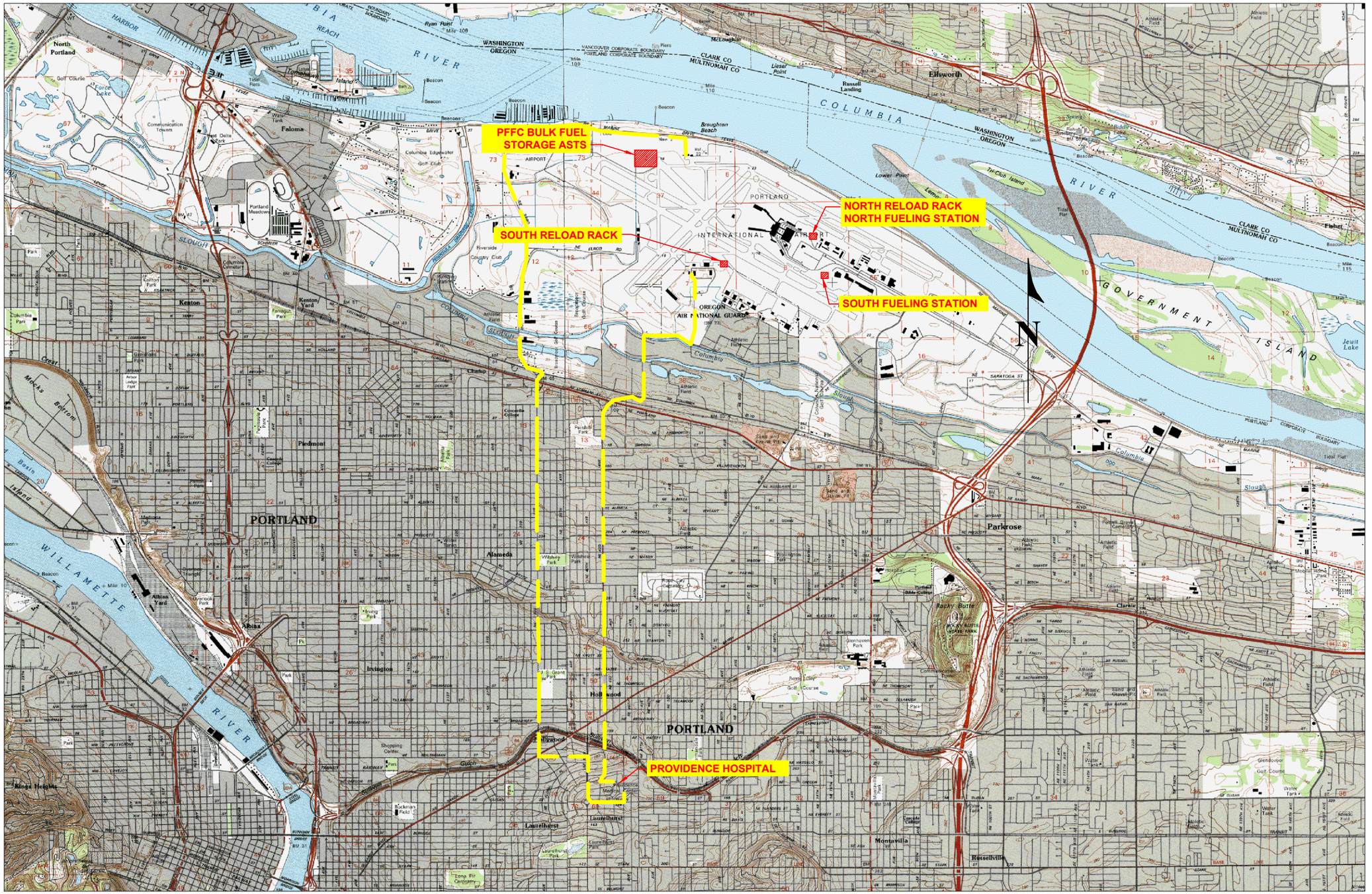
PORTLAND, OREGON

SPILL RESPONSE SITE DRAINAGE, NORTH & SOUTH RELOAD & GSE FUEL ISLAND

[redacted]

FIGURE
3-3D

Figure 3-4: Hospital Route



BASE MAP FROM USGS 7.5' QUADS; MT TABOR, OREGON 1990, AND PORTLAND, OREGON 1990

REVISION INFORMATION			
MILESTONE	DATE	REVIEWING AGENCY	
FRP-ICP			
FRP-ICP UPDATE	8/2023		

"PARTNERS IN SERVICE"

Advanced Remediation Technologies, Inc.
660 NW 53rd AVENUE, SUITE 104
GAINESVILLE, FLORIDA 32609
303-266-2122

MENZIES AVIATION
PDX FC - PORTLAND INTL AIRPORT
PORTLAND, OREGON

HOSPITAL ROUTES, FIGURE 3-4

DATE	11/28/16
DRAWN	LAD
DESIGN	LAD
CHECK	KAD
SCALE	1"=20'

SITE PLAN

SHEET 1 OF 1

3.2 Emergency Equipment Inventory

The following table includes all emergency equipment kept at the PDX FC/Menzies operations, listed by location:

Table 3-1: On-Site Emergency Equipment Inventory

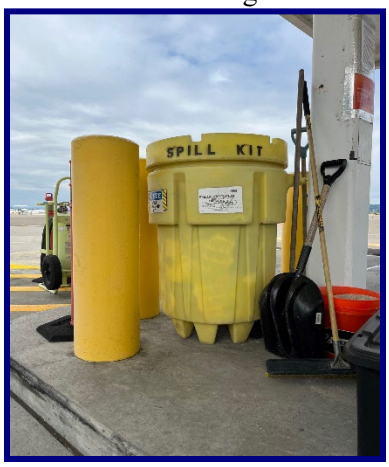
Type of Equipment	Location	Response Time
Spill Carts (1)	north reload rack	15 minutes
Spill Kits (4)	Bulk Fuel Storage Facility, North and South Reload Racks, south autogas	15 minutes
Vacuum Trucks (1,200-gallon and 800-gallon)	Bulk Fuel Storage Facility	15 minutes
Absorbent pads, brooms, floor dry	Throughout PDX FC/Menzies	15 minutes
Fire Extinguishers	Throughout PDX FC/Menzies	15 minutes

Equipment	Contents (minimum)	Quantity
Spill Cart (each)	55-gallon recovery drum	1
	Personnel Protective Equip (2-pair gloves, 2-safety goggles, 2-tyvek suites, 1 roll duct tape)	1
	Absorbent Pads (16” x 18”) bales (100 ea bale)	2
	Absorbent Booms (10’ x 4”)	2
	Absorbent 40-lbs bags	8
	Squeegee	1
	Absorbent socks (3” x 48”)	6
	Shovel (spark resistant)	1
	Push Broom	1
	Heavy Duty Plastic Bags (4-10 mil thick)	12
Spill Kit (each)	Personnel Protective Equip (2-pair gloves, 2-safety goggles, 2-tyvek suites, 1 roll duct tape)	1
	Absorbent Pads (16” x 18”) bales (100 ea bale)	2
	Absorbent Booms (10’ x 4”)	4
	Absorbent 40-lbs bags	4
	Absorbent Socks (3” x 48”)	6
	Shovel (spark resistant)	1
	Push Broom	1
	Heavy Duty Plastic Bags (4-10 mil thick)	12

All equipment will be cleaned after use and made suitable for response events. All equipment will be maintained according to manufacturer's specifications, including periodic calibration, if applicable.

Storage Fuel Farm

North Reload Rack



South Reload Rack

South Autogas

Spill Materials Supplies


1,500-gallon Vacuum Truck

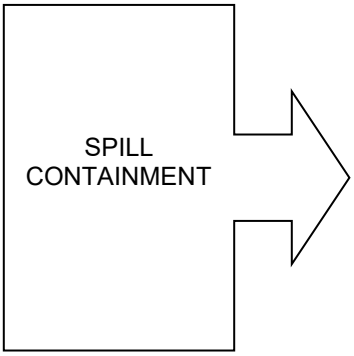
Additionally, emergency response contractors (US Ecology or Terra Hydra) can respond to major spill events with equipment capable of handling up to 15,000 barrels per day within one hour of the incident.

3.3 Spill Specific Procedures

Procedures for response to any type of spill that could occur at PDX FC/Menzies are specified in this section. Four categories of spills that could potentially occur at the facility are identified. Each category identifies the various types of materials explained within. Therefore, the facility personnel responding to an incident need to categorize the type of spill and respond accordingly.

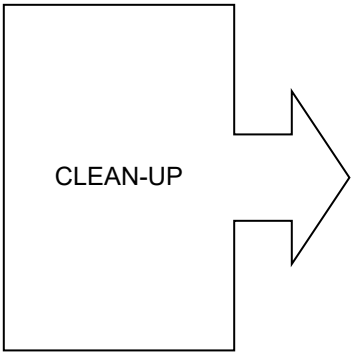
Waste Fuel and Fuel Products Spill Procedures

This category includes fuel type materials in both bulk (ASTs) and small containers in storage (i.e., gasoline, fuel tanks, diesel fuel, waste diesel, and diesel fuel additives).

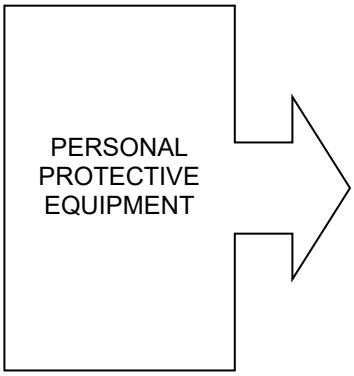


Attempt to halt the spill or leak by:

- Closing off connecting valves.
- Plugging the hole(s) with wood or any other available materials. Care must be taken to use spark retardant tools.
- Repositioning the fuel pod, tank truck, or drum so that the leak is slowed or stopped.
- Position some type of container/trash can under the leak or rupture.
- Enclose the spilled fuel with a dike of clay absorbent or an absorbent sock.



Use enough absorbent to soak up all the spilled liquid. Since most organic liquids are very flammable, avoid all sources of ignition or sparking. Scoop up spent solid absorbent with a non-sparking shovel with a long handle. Place absorbent in 55-gallon drums labeled "WASTE SPILL MATERIAL," "DIESEL," "JET A" or "AUTO GAS," depending on the contaminant. Recovered product for medium and large spill can be temporarily stored in the sump fuel AST. For worst case spill, secondary containment should be sufficient to contain spill. Recovered product can be temporarily stored in other ASTs and recovery equipment until appropriate disposal and/or treatment is arranged.



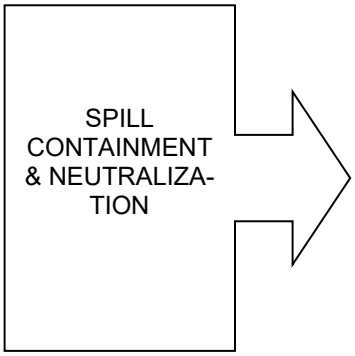
Personnel involved in cleaning up a fuel/fuel product spill must wear the following Personal Protection Equipment (PPE):

- Tyvek coverall
- Nitrile gloves
- Goggles/safety glasses
- Boots with chemical-resistant overshoes

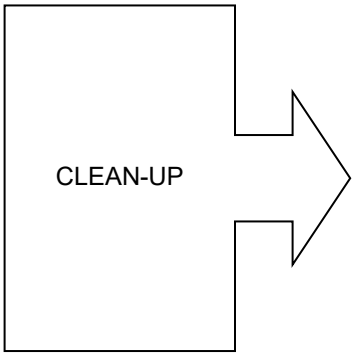
Fire Extinguishers to be used: water, dry chemical, or carbon dioxide.

Battery Acid and Other Corrosives Spill Procedures

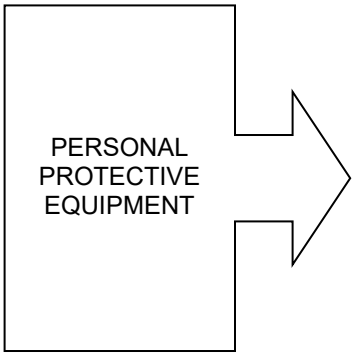
This category includes corrosives mainly found in small quantities in batteries or storage areas: batteries (sulfuric acid, mercury (Hg), nickel/cadmium (Ni/Cd), lithium (Li), alkali), phosphoric acid (rust remover), and potassium hydroxide.



Enclose spilled acid with a dike of absorbent. Add sodium bicarbonate to a liquid acid spill or add ascorbic acid to a liquid alkaline spill until it is completely covered.



Add absorbent until the acid or alkaline spill is absorbed. Scoop up spent solid absorbent material and place spent waste in a plastic drum.



Personnel involved in cleaning up an acid/corrosive spill must wear the following PPE:

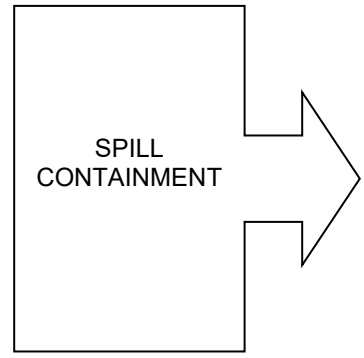
- Rubber or neoprene 18" gauntlet gloves
- Rubber or neoprene apron
- Rubber hightop boots or overshoes
- Long sleeve shirt
- Face shield/splash-resistant goggles

Wash all clothing after use.

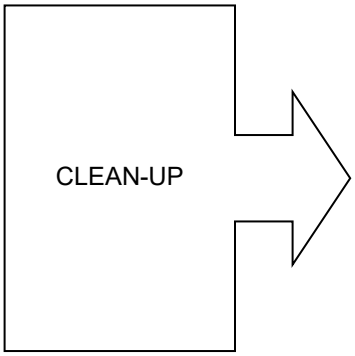
Fire Extinguishers to be used: water, dry chemical, or carbon dioxide.

Used Oil and Oil Products Spill Procedures

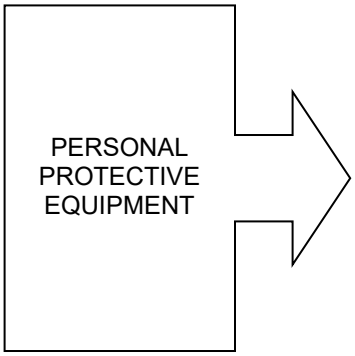
This category includes oil type materials mainly in small quantities located in storage cabinets and maintenance facilities: lube oil, oil/solvent, used oil, oil product (such as motor oil, gear oil, and engine oil), brake and transmission fluids, hydraulic fluids, grease, and fuel pump tester calibration fluid.



Enclose spilled oil with a dike of absorbent rolls or clay absorbent. Other recovered spilled oil can be stored in sump fuel AST



Use enough absorbent to soak up all the spilled liquid. Avoid all sources of ignition or sparking. Scoop up spent solid absorbent with a non-sparking shovel with a long handle. Place absorbent in a 55-gallon drum labeled "WASTE SPILL MATERIAL – OIL."



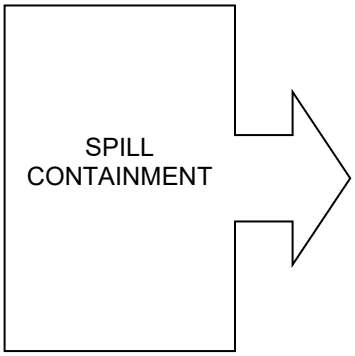
Personnel involved in cleaning up an oil product spill must wear the following PPE:

- Tyvek coverall
- Nitrile or rubber gloves
- Goggles/safety glasses
- Boots with chemical-resistant overshoes

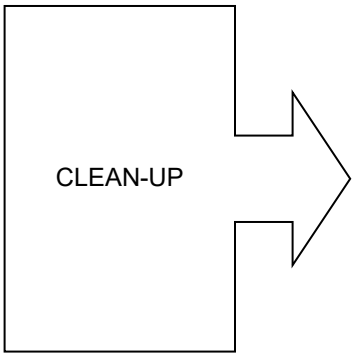
Fire Extinguisher to be used: carbon dioxide.

Paints, Thinners, and Other Organic Materials Spill Procedures

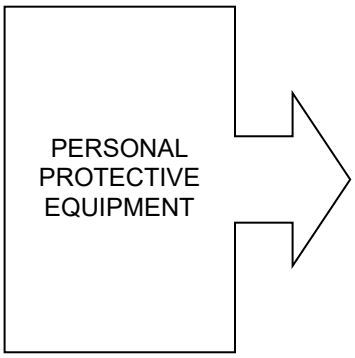
This category contains materials that are generally in containers smaller than 55 gallons and are stored in flammable cabinets and other storage areas. *Paint type materials* include: paint thinner (including methylene chloride products), waste paint, paint product, stain, mineral spirits, MEK, carbon tetrachloride, polyurethane, and lacquer. *Other materials* include: ethylene glycol (including antifreeze and windshield cleaner), isopropanol, linseed oil, methanol, coating compounds, de-icer, toner and dispersant, and isocanes.



Enclose spilled organic liquid with a dike of absorbent material or sweeping compound.



Use enough absorbent to soak up all the spilled liquid. Since most organic liquids are very flammable, avoid all sources of ignition or sparking. Scoop up spent solid absorbent with a non-sparking shovel with a long handle. Place absorbent in 55-gallon metal drum labeled "WASTE SPILL MATERIAL – PAINT PRODUCTS."



Personnel involved in cleaning up an organic material spill must wear the following PPE:

- Tyvek coverall
- Nitrile gloves
- Goggles/safety glasses
- Boots with chemical-resistant overshoes

Fire Extinguisher to be used: carbon dioxide and dry chemical type.

3.4 Operating Procedures and Best Management Practices

This annex presents facility operating procedures and BMPs. The PDX FC/Menzies has developed BMPs to prevent and control pollutant releases to the environment (i.e., storm water, groundwater, surface water, soil, and air) and from endangering human health. These BMPs are designed based on industry standards and are applicable to the potential pollutant sources identified in Section 2.3. BMPs are defined as:

- Baseline BMPs; and
- Activity-specific BMPs.

3.4.1 Baseline BMPs

Baseline BMPs are cost effective and easily implemented measures that are applicable facility-wide. Many of these BMPs have been used in the past or are currently being used (for example) for product loss prevention, worker health and safety, or to comply with other environmental regulations. The following presents a discussion of the baseline BMPs.

Spill Prevention and Response

As discussed in Section 2.1, PDX FC/Menzies implements emergency response procedures to effectively respond to and clean up spills. In addition, spill response equipment is available onsite and is listed in the Emergency Equipment Inventory (Table 3-1) in Annex 3.2. Spill preventative measures are addressed within the baseline and activity-specific BMPs, including inspections to promote early discovery of an incident that would require emergency response, spill prevention and response training, and procedures for appropriate management and containment of containers, tanks and storage areas.

Good Housekeeping

Good housekeeping practices are designed to maintain a clean and orderly work environment and involve the following control practices implemented at the facility:

- Quantities of stored products are kept as small as possible while still maintaining an adequate supply;
- Only compatible materials are stored together;
- Products are kept in their original containers with original label;
- Product and waste containers will be well organized and placed so the label can be read without moving it;
- Any detected spill will be attended to immediately;
- Leaking containers will be repaired, recontainerized or placed in overpack containers immediately upon discovery;
- Spill cleanup materials and equipment will be readily accessible and all personnel will be knowledgeable in their location and proper use;
- All lids on garbage dumpsters will be closed to prevent storm water accumulation and contamination;
- Garbage and waste material will be picked up on a regular basis;
- All work areas will be "policed" at least once a day;
- Scrap metal and empty containers (drums) exposed to precipitation will be wiped clean of any residue;
- Scrap metal or containers that show signs of rust or corrosion, or are stored outdoors for extended periods of time, will be covered with plastic or tarp;

- Empty containers and equipment will be stored on pallets and covered with plastic or a tarp where enclosed outdoor areas are not available. Another option is to store empty containers on their side to prevent rainwater accumulation; and
- Used oil, hydraulic fluid, solvent degreasing material, stripped paint, etc., will be disposed of properly and in accordance with applicable state and federal regulations.

3.4.2 Activity-Specific Best Management Practices

Whereas baseline BMPs can be applied facility wide, activity-specific BMPs are particular to an identified potential pollutant source. Activity-specific BMPs incorporate some of the baseline BMPs where applicable. The following subsections present activity-specific BMPs that are implemented at the facility.

3.4.3 BMPs for Indoor Storage Facilities

This section deals specifically with indoor storage of hazardous materials in designated rooms, cabinets, or shelves.

Storage Procedures

- An inventory of materials stored will be maintained to insure that the stored products are compatible.
- Containers will be arranged to provide 2 feet of aisle space between rows to allow adequate access for inspection and emergency response. All storage rooms will be evaluated to determine the capability to provide secondary containment for the stored materials. The volume of the largest containers, presence or absence of floor drains, vents near the floor, expansion joints, holes in the floor, slope of the floor, etc., are points that will to be considered in the evaluation. Frequently, a storage room will provide sufficient secondary containment. In some cases, a concrete berm can be installed in front of the door and along the walls to increase the containment volume provided by the room. Small sheds used as storage rooms can be placed on curbed pads. Floor drains should be closed in rooms designated for hazardous material storage.
- Drip pans will be placed beneath all dispensing taps that are used to fill other containers.
- Emphasis will be placed on good housekeeping. Workers will clean up after themselves. Spillage from leaking containers or equipment will be attended to immediately and/or reported to supervisors.
- The name and phone number of the person to notify in the event of a spill will be posted near the entrance to the storage area. In the case of a room storing large quantities (i.e., > 250 gallons), a copy of the appropriate spill response procedures should be conspicuously posted.
- All personnel who use the storage rooms will be trained in proper handling, containment, cleanup, and reporting procedures.
- Stacked containers will be limited in height so they are stable and secure.
- The storage room will be locked except when materials are being added or removed.
- Spill containment and cleanup equipment, appropriate for the materials stored, will be readily accessible.
- Adequate ventilation will be provided in areas storing flammable materials, and no smoking rules will be enforced (i.e., posting of signs).
- Bulk drums of flammable liquids will be grounded.

Unloading and Loading Procedures

- Activities will be conducted in areas where appropriate containment or diversionary structures are present to contain a spill. If none are present, temporary provisions such as portable berms may be provided.
- At least two persons will be present at all times during operations; one person will be responsible for directing the driver.
- Materials will not be stored in the designated unloading/loading area.
- Spill containment equipment will be readily accessible.
- When feasible, outdoor operations will not be performed during rain events.
- All delivery vehicles will use emergency brakes, and vehicles will be shut off when not in use.
- All container lids will be checked prior to loading/unloading to ensure they are secure.

Visual Inspections

The storage areas and containers will be informally observed daily, and formally inspected weekly to ensure that leakage has not occurred.

3.4.4 BMPs for Aboveground Storage Tanks

ASTs at PDX FC/Menzies are used to store Jet A fuel, sump fuel, and waste liquids such as vehicle waste oil. The following is a discussion of procedures to minimize the potential for release from an AST.

AST Operational Standards

ASTs at the facilities are subject to the Federal Standards outlined in 40 CFR 112 and 40 CFR 279. These include requirements for secondary containment and periodic tightness testing.

Secondary Containment

In accordance with SPCCP requirements outlined in 40 CFR 112.7 and used oil storage requirements outlined in 40 CFR 279.22, all ASTs must be provided with some form of secondary containment to prevent a release. The containment used is generally a function of the size of the tank, its contents, and its location. Containment systems may consist of concrete, asphalt, or compacted earth bases with berms, dikes, or curbing, drainage systems leading to a sump, diversion or retention pond. Alternatively, the containment may be a sheet metal enclosure (as with double-walled tanks) or any system that will contain the flow from the primary storage tank in the event of a leak.

There are specific secondary containment requirements for tanks with capacities greater than 660 gallons and used oil tanks that are 15 years of age or older outlined in 40 CFR 112.7(e)(2)ii and 40 CFR 279.22, respectively. Specifically, secondary containment for these tanks is designed to contain at least 100% of the tank's product volume. If numerous ASTs are co-located, a larger containment system can be provided but must be constructed to contain at least 100% of the largest tank's volume plus sufficient freeboard to contain precipitation. In areas that receive large amounts of precipitation, overhead protection may be present to exclude precipitation from the secondary containment structure. This is accomplished with a cover such as a roof or awning. Cover structures are designed and constructed with sufficient strength to prevent interference with normal operations in and around the tank system.

Facility Procedures

Physical Damage & Vandalism Controls

Because of their typical use in vehicle maintenance areas, ASTs are vulnerable to damage incurred from vehicle collisions and vandalism. For example, a collision could result in an instantaneous release of a large

volume of material if the tank were to rupture. Posting signs and enforcing ground-guide procedures (i.e., guide present to direct vehicle when backing up) discourages damage to ASTs from vehicle collisions. In addition, physical barriers such as fences, concrete/steel posts, and guardrails may be installed around vulnerable areas of the tank to protect tanks from collision. Fences, signs, padlocks, lighting, and security personnel deter vandals.

If physical damage or vandalism occurs, regardless of the extent, it is immediately reported to the Facility Manager. The tank is immediately inspected to survey the damage and repairs are initiated, if necessary.

Drainage of Collected Storm Water

Large-volume containment systems are designed to allow for drainage of collected precipitation. This usually consists of a drainage valve. Drainage of rainwater from the containment area is in accordance with 40 CFR 112.7(e)(2)iii. The following procedures must be followed:

- The release valve is normally kept locked;
- Accumulated water is only released upon verification that the water is free of contamination. This consists of observance of visible oil sheen;
- The drainage valve is resealed following drainage;
- Records will be kept of testing and discharge of accumulated precipitation;
- A log will be maintained of all drainage release events (see Form 3-2).

Other Facility Preventative Procedures

Preventative operational measures that are employed in addition to those listed above include:

- Supervision of all product delivery and removal to ensure that there is no spillage (e.g., from dislodged or broken delivery hose);
- Maintain records of all preventative measures, including inspections, and containment drainage discharge for a period of three years.

3.4.5 BMPs for Outdoor Storage Facilities

This section primarily addresses spill prevention procedures for outdoor storage facilities that are used for either materials (product) or waste storage. These storage areas include designated housed structures as well as open segregated areas within the grounds. ASTs are not addressed in this section (see section 3.4.4). BMPs discussed address storage areas of both new products and waste materials. Most of the recommended practices are applicable to both types of storage areas. Where practices are specific to one type of storage, it is noted accordingly.

Outdoor storage is discouraged due to the high potential for environmental contamination from spills. At a minimum, all hazardous materials and wastes should be stored under a canopy or inside a designated structure to provide protection from the elements. Outdoor storage should be a temporary last resort to management of hazardous materials and wastes.

Storage Procedures

General

- Hazardous materials and wastes will be segregated according to chemical compatibility. An inventory of materials stored will be maintained to insure that the stored products are compatible.
- Containers will be arranged to provide 2 feet of aisle space between rows to allow adequate access for inspection and emergency response.

- Stacked containers will be limited in height so they are stable and secure.
- Temperature extremes can cause containers to bulge and leak. Move containers to more protected areas, if necessary, to prevent mishaps.
- All containers stored in the open must be kept tightly closed to exclude rainwater.
- If former product drums are used to store waste products, the original labels must be obliterated and the type of waste to be held must be stenciled or marked on the drums.
- The levels of waste material in satellite waste accumulation drums will be monitored frequently to ensure that they are not overfilled. Careful pouring of the waste material into the storage containers will be emphasized in annual training to avoid contaminating the exterior of the container and the surrounding ground. If funnels are used, they will be removed after use and the containers will be closed.
- Environmental laws require that bungs be kept in the containers to exclude rainwater and prevent the contents from pouring out if they are inadvertently tipped over.
- The storage room will be locked except when materials are being added or removed.
- Drip pans will be placed beneath all dispensing taps that are used to fill other containers.
- All containers will have legible labels on them identifying the contents. The containers should be oriented so the labels may be read without having to move the containers. Hazardous waste containers will be labeled in accordance with federal and state hazardous waste regulations for regulated waste generators and will include the contents and the date the waste entered storage.
- Adequate ventilation will be provided in areas storing flammable materials and no smoking rules will be enforced (i.e., posting of signs).
- Bulk drums of flammable liquids will be grounded and bonded to containers during dispensing.
- Leaking containers will be repaired, replaced, or placed in overpack containers immediately upon their discovery.
- Emphasis will be placed on good housekeeping. Workers will clean up after themselves. Spillage from leaking containers or equipment will be attended to immediately and/or reported to supervisors.
- The name and phone number of the person to notify in the event of a spill will be posted near the entrance to the storage area. In the case of a room storing large quantities (i.e., > 250 gallons), a copy of the appropriate spill response procedures should be conspicuously posted.
- All personnel who use the storage rooms will be trained in proper handling, containment, cleanup, and reporting procedures.
- Spill containment and cleanup equipment appropriate for the materials stored will be readily accessible.
- Contaminated material and soil should be cleaned up and disposed of in accordance with applicable regulations. The Menzies Corporate Office will coordinate and/or contract for the disposal of all contaminated material and soil. Therefore, the Menzies Corporate Environmental Coordinator should be contacted prior to cleanup activities for instructions regarding the appropriate containers, labels and methods to use.

Secondary Containment

- All outdoor material and waste storage facilities will be designed to provide protection from the elements and secondary containment to minimize the potential for a spill to reach the environment. This includes:

- Outdoor storage sheds not equipped with containment provisions will be located on a concrete pad with a berm around the walls and the front entrance.
- Drums or containers of materials/waste stored in the open will not be stored directly on the ground. They will be stored on pallets or on a concrete pad. Where feasible, materials will be stored within a containment area (such as a lined bermed area).
- Drums or containers not stored in a building/shed or roofed area will be covered with a tarp or plastic sheeting that is tied down and/or anchored with rocks.

Drainage of Rainwater

- The following procedures will be adhered to when drainage of any accumulated rainwater within containment areas is required:
  - The release valve is normally kept locked.
  - Accumulated water is only released upon verification that the water is free of contamination of stored product. This consists of observance of visible oil sheen.
  - The drainage valve is resealed following drainage.
  - Records will be kept of discharge of accumulated precipitation.

Unloading and Loading Procedures

- Activities will be conducted in areas where appropriate containment or diversionary structures are present to contain a spill. If none are present, temporary provisions such as portable berms may be provided.
- At least two persons will be present at all times during operations; one person will be responsible for directing the driver.
- Materials will not be stored in the designated unloading/loading area.
- Spill containment equipment will be readily accessible.
- When feasible, outdoor operations will not be performed during rain events.
- All delivery vehicles will use emergency brakes and vehicles will be shut-off when not in use.
- All container lids will be checked prior to loading/unloading to ensure they are secure.

Visual Inspections

- The material and equipment storage areas will be informally observed daily, and formally inspected weekly to insure that leakage has not occurred
- Waste storage areas must be routinely inspected. Walkthrough inspections should be performed daily and thorough inspections must occur weekly to ensure that leakage has not occurred. The weekly inspections must also be documented at large and small quantity generator sites.

3.4.6 BMPs for Fueling Stations/Reload Racks

Fuel Stations refer to designated fixed locations for fueling of vehicles and/or refueller trucks. The following BMPs address general spill prevention and control measures and three operations, receiving, dispensing, and bulk fueling.

General Spill Prevention and Control Measures

- Adequate lighting will be present at the fuel point areas.

- Signs will be posted with instructions in the event of a spill, including names and numbers of emergency notification personnel.
- Absorbent material will be readily available in all cases.
- Fuel point operators will be familiar with this plan and be properly trained in spill prevention and control.
- The fueling area will be inspected daily for evidence of leaks (fuel stains) and any damage or cracks in the concrete containment area.
- All piping will be inspected and maintained according to 40 CFR 112.7(e)(3).

Receiving

- One Menzies personnel will always be present and attentive during receiving operations.
- The receiving tank will be gauged before and after delivery, as a matter of inventory control.

Dispensing

Dispensing is the delivery of fuel to the operational gas tank of a vehicle or equipment, or to other containers. It is usually accomplished by an electric service station pump, which delivers 10 to 25 gallons per minute (gpm). The pump discharges through a wire-reinforced synthetic rubber hose, and a compound lever-type nozzle. The nozzle usually has an automatic shutoff mechanism. If it has a lock-on, latch-open device which permits unattended operation, this feature should be disabled so the lever must be manually held open, in effect making the nozzle a deadman shutoff valve.

- The pump will be padlocked whenever it is not in use or under the direct supervision of the responsible person. The electrical pump switches should be located inside a securable building, or be securable themselves.
- Fueling operations will be conducted on a concrete pad with adequate provisions for secondary containment. This can include a fixed concrete berm, sandbags, or a sump with an oil/water separator.
- Care will be taken to prevent a spill from overfilling during fueling. Therefore topping off tanks is not permitted.

Bulk Fueling

Bulk fueling racks have larger pump hoses than service stations and pumping rates may range as high as 350 gpm.

- As with receiving operations, a Menzies personnel will always be present.
- To prevent the receiving truck from departing before disconnecting the fuel line, preventative measures such as posting reminder signs or having the operator hold the keys will be utilized.
- Pumps and electrical switches will be locked to prevent unauthorized use.

3.5 Preventative Maintenance and Inspection Procedures

The established preventative maintenance program focuses on maintenance and inspection of systems and equipment identified as potential pollutant sources and includes storm water management devices (oil/water separators, catch basins and outfalls).

The supervisors, during their normal daily routine, are responsible for inspecting the areas under their control for compliance with this plan. The Standard Operating Procedures (SOP) used at PDX FC/Menzies state that the facility will be inspected for implementation of proper security measures and elimination of potential fire/operational hazards at the close of each workday. A weekly review is also conducted to ensure

the facility is operating properly and no problems exist. In addition, periodic inspections will be made by the Facility Manager/Facility Supervisor. Checklists that may be used to document periodic inspections are provided in Annex 3.8. The following is a general guideline for inspecting facilities.

- Facility inspections are required to follow written procedures. The written inspection procedures and record of inspections, signed by the inspector, are maintained for a period of three years.
- Spill response inspections are required annually, at a minimum.

The following areas must be inspected:

Shop Maintenance Area

The work area must be clean and well maintained. All hazardous material, when not in use, must be covered and returned to designated storage areas.

Hazardous Material Containers

All containers must be clearly marked with their contents. They must be closed and made of suitable material for their contents. At no time will food containers be used to store hazardous material or waste.

Hazardous Waste Containers

As a CEQSG, PDX FC/Menzies is required to determine which of its wastes are hazardous, and treat or dispose of wastes onsite or deliver wastes to an offsite, permitted treatment, storage, or disposal facility. All hazardous waste containers must either be marked HAZARDOUS WASTE or with words that identify the contents of the container. All containers must be inspected to ensure they are clean, free of leaks, and in good condition. Waste containers must be closed when not in use. Containers located in an uncontrolled area must be sealed or locked to prevent mixing of wastes. Currently, PDX FC/Menzies generates no hazardous waste.

Spill Containment

Whenever possible, materials should be stored on an impermeable surface such as concrete and secondary containment should be provided. Secondary containment may include a diked containment area, storage lockers with spill containment, or spill pallets. Inspect secondary containment to ensure it has the capacity to contain the largest possible spill. Determine if spill kits or equipment are present, easy to locate, and readily accessible. Inspect the spill kit to determine if it contains the types and quantities of material necessary to contain any potential spill. Fire extinguishers must be suitable for the types of materials stored and must be maintained and readily accessible.

Accumulation Areas

CESQGs may accumulate hazardous waste onsite, but if at any time more than 1,000 kilograms (2,205 pounds) of hazardous waste, one kilogram of acute hazardous waste, or 100 kilograms of acute hazardous waste spill cleanup debris is accumulated, all of the wastes become subject to full regulation.

Exempt Wastes

Exempt wastes must be stored separately from non-exempt wastes. Section 268.50(d-e) of the RCRA regulations describes the storage requirements of exempt wastes. Section 261 defines what a hazardous waste is and how a waste may become exempt. Used oil that meets burn standards and the requirements of an exempt oil as per RCRA 261.4(12) (i.e. oil recovered from transportation practices), and is to be used for energy recovery, can be held in excess of the holding time restrictions. These drums or ASTs should be clearly marked USED OIL, and should include a sampling date if it is required. If sampling is required, results should be attached to the drum when they are obtained. In all cases, these exempt wastes should be stored separately from RCRA hazardous wastes.

Waste Segregation

Storage areas must be clearly marked with the types of material they are permitted to contain. Kits and packages containing incompatible materials must be separated when not in use. Examples of potentially incompatible wastes can be found in Appendix V of RCRA Part 265.

Drains

Drains must be inspected to ensure some form of control is in place to prevent contamination from reaching the environment or a wastewater system. Various control measures include oil/water separators, positive elevation (the drain is at a higher elevation then the material), and valves. Any system or valve must be inspected to see that it is working and in use.

The following areas are considered to be part of a storm water management inspection. At a minimum, they should be included in all routine inspections, on a monthly basis.

Ditches and Waterways

Ditches, ponds, waterways, and drainage pipes around facilities and work areas will be inspected for evidence of leaks or spills.

Overland Flow

The flow of storm water runoff must be controlled to minimize its contact with potential pollutants. Ditches and barriers should be established to prevent the flow of surface water through areas with potential pollutants. Inspect areas to determine if excessive storm runoff is occurring. Inspect the runoff barriers to determine if they are in good condition and functioning properly.

Material Storage

Material should be stored to minimize contact with storm water. Hazardous material should be covered or stored in a shelter. Ensure hazardous material containers stored outdoors are clean and in a well drained area.

Aboveground Storage Tanks

Tank Integrity Testing

40 CFR Subparagraph 112.8(c)(6). Aboveground tanks must be subject to regular integrity testing and whenever repairs are made and should be frequently inspected for signs of deterioration or accumulation of oil inside diked areas. Visual inspection must be combined with another testing technique and comparison record must be kept. The tank's supports and foundations must also be inspected.

Regular site inspections of the facility are performed in accordance with ATA 103 and local regulations. These inspections include daily, monthly, quarterly and yearly checks encompassing both analytical and visual inspections. Integrity testing shall be performed at the time of installation, modification or repair of any aboveground storage tank at this facility in accordance with 40 CFR 112, a nationally recognized and industry accepted standard and all applicable codes, rules and regulations. All field-erected tanks at this facility are tested on a regular schedule in accordance with API 653 and frequent inspections outside the tank are performed to detect signs of deterioration and discharges, to confirm the integrity of the tank foundation and supports and to monitor the dike area. Specifically, daily and monthly inspections for all aboveground storage tanks are conducted by facility personnel as follows:

- Daily checks consist of visually inspecting tank surfaces and equipment for corrosion and paint condition. Routine exterior maintenance, such as spot or touch-up painting, is performed by facility personnel. Tank equipment and gauges are checked for proper operation and they will be repaired by facility personnel, unless special technical skill or equipment requires an outside contractor. Extensive exterior maintenance, such as sandblasting, painting of tanks, interior surface maintenance, and required integrity testing is performed by outside contractors. Visual inspections

for leaks are made during scheduled rounds of the facility. Should emergency repairs be necessary, they will be undertaken immediately. Inspection records are maintained at the facility.

- Exterior surfaces of tanks for leaks, cracks, areas of wear, thinning, maintenance, operating practices, settling of structures, separation or swelling of seams, malfunctioning equipment, and structural or foundation weakness;
- Proper functioning of tank gauging leak detection systems, cathodic protection equipment, and monitoring and warning systems.

For field-erected tanks with a capacity of 10,000 gallons or more, a detailed 10-year inspection must be performed in accordance with API 653. The inspection must consist of the following:

- Cleaning the tank and difficult to reach areas within the tank in accordance with generally accepted practices;
- Removal, transportation, and disposal of sludge as required by law;
- Inspecting tank shell for soundness, testing all welds and seams on tank bottom for porosity and tightness; work performed consistent with generally accepted industry testing and inspection practices;
- Visual inspection of the internal surface of the tank and difficult to reach areas for corrosion or failure;
- Inspection of internal coatings for any signs of failure such as cracks, bubbles, blisters, peeling, curling, or separation;
- A tightness test of any connecting underground pipes.
- A formal API 653 inspection report is kept on file and to be used to schedule the next inspection date.

More frequent inspections and additional cleaning may be required when changing type of product stored or when major maintenance or repairs are needed. Immediate corrective measures will be taken if any leaks are identified, including notifying the IOSC/QI immediately upon detection.

3.6 Employee Training

The training program will be performed as a classroom course or as an on-the-job training program. Periodic briefings will also be provided under this training program. All facility personnel are to be instructed by Menzies personnel, who must be trained in hazardous waste management, spill prevention and control procedures, and storm water pollution prevention procedures. Training will be conducted using the ICP, and the trainer will ensure that all employees are familiar with its contents. In particular, the Facility Manager of PDX FC/Menzies will ensure that the duties and responsibilities of the IRT are understood by facility personnel (see Section 2.1). The training will also provide instruction in applicable pollution control laws, rules, and regulations. The content of training courses will be modified to incorporate changes in operational procedures resulting from post-incident investigations. The training will also provide the following:

- Procedures for effectively responding to spill and emergency incidents (contingency planning);
- Familiarization with emergency procedures, emergency equipment, and emergency systems (e.g., communication/alarm systems, response to fire or explosion, response to groundwater contamination incidents, and procedures for use, inspection, and repair of emergency and monitoring equipment);
- Good housekeeping and material management practices;
- Operation and maintenance of equipment to prevent spills or incidents requiring emergency response;
- Descriptions of known spill events or failures, malfunctioning equipment/components, and recently developed precautionary measures;
- Onsite pollution prevention requirements; and
- Management/Procedures for fueling, used oil, spent solvent, painting, and used batteries.

Training is provided on, at least, an annual basis. This does not include periodic briefings. Facility personnel will be trained within six months of hire, assignment to the facility, or to a new position at the facility, as required by 29 CFR 1910.38 and 1910.119.

All training given to individuals must be documented. The following records must be maintained at the facility:

- Name and job title of employee trained;
- Written job description for each position;
- Written description of the type and amount of both introductory and continuing education that will be given to each employee; and
- Records of training completed by personnel.

Training records must be maintained on current personnel until the closure of the facility. Training records on former employees must be kept for at least three years from the last day of employment at the facility.

In addition to the general annual training discussed above, the facility shall ensure that adequate training is provided to all employees who participate, or are expected to participate, in emergency responses and storm water pollution prevention. Emergency response training consists of two levels that correspond to different personnel responsibilities.

Full Time Personnel

Full time personnel shall meet the requirements of the first responder awareness level as described in 29 CFR 1910.120(q)(6). These employees will most likely be the first to discover a spill or emergency

incident. Their responsibility is to initiate the first response sequence by notifying the proper authorities. They must be trained in the following areas:

a. An understanding of what hazardous substances are and the risks associated with them in an accident;

b. An understanding of the potential results associated with hazardous material and waste emergencies;

c. The ability to recognize the presence of hazardous substances in an emergency;

d. The ability to identify hazardous substances, if possible;

e. An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and U.S. Department of Transportation's Emergency Response Guidebook;

f. The ability to realize the need for additional resources, and to make appropriate notification to the communication center.

IOSC/QI

The IOSC/QI shall meet the requirements of the first responder operations level as described in 29 CFR 1910.120(q)(6). These employees will respond to releases or potential releases of hazardous substances to protect nearby persons, property, or the environment from the effects of the spill. This level must have received eight hours of training or demonstrate competency in the following areas, in addition to the areas listed above, for the first responder awareness level:

a. Knowledge of basic hazard and risk assessment techniques;

b. How to select and use proper personal protective equipment;

c. Knowledge of basic hazardous materials terms;

d. How to control basic control, containment and/or confinement operations;

e. How to implement basic decontamination procedures;

f. Knowledge of the relevant SOP and termination procedures.

3.7 Planning Drills and Training Exercises

Menzies shall meet the requirements of 40 CFR 112.21 Subpart D for self-inspection, drill/exercises, and response training through simulation of most probable to worst case spill scenarios. It is recommended that the training program be based on the USCG's Training Elements for Oil Spill Response, as applicable to facility operations. Menzies must notify the OR DEQ at least 60days before a full deployment exercise and tabletop drills, and 10 days prior to equipment deployment.

Tabletop exercises involve key personnel discussing hypothetical scenarios in an informal setting. This type of exercise can be used to assess oil spill contingency plans, policies, and procedures or to assess the ICP structure to guide the response to, and recovery from a pollution incident. Tabletop's typically are aimed at facilitating understanding of concepts, identifying strengths and shortfalls, and achieving changes in the approach to a particular situation. Participants are encouraged to discuss issues in depth and develop decisions through slow-paced problem solving, rather than the rapid, spontaneous decision making that occurs under actual or simulated emergency conditions. The effectiveness of a tabletop is derived from the energetic involvement of participants and their assessment of recommended revisions to current policies, procedures and plans.

For a typical exercise, the situation is established by the scenario. It describes a pollution event or spill incident and brings discussion participants up to the simulated present time. Personnel apply their

knowledge and skills to a list of problems presented by the leader; problems are discussed as a group; and the leader generally agrees on and summarizes the resolutions.

Drill/exercises represent the next level of the exercise training cycle. They are used to validate the plans, policies, agreements and procedures solidified in discussion-based exercises. Operations-based exercises include drills and full-scale exercises with response deployment. They can clarify roles and responsibilities, identify gaps in resources needed to implement plans and procedures and improve individual and team performance. Operations-based exercises are characterized by actual reaction to an oil spill or pollution incident, response to emergency conditions; mobilization of equipment, resources, and/or networks; and commitment of personnel, usually over an extended period of time.

A drill/exercise is a coordinated, supervised activity usually employed to validate a single specific operation. Drill/exercises are commonly used to provide training on ICP, verify oil spill contingency plans, or practice and maintain current skills. Drill/exercises are also an effective training ground for lessons learned from previous spills or exercises. Drill/exercises at the operational-base size should be completed annually. Typical attributes of drills include but are not limited to:

- A plan holder oil spill contingency plan
- Lessons learned
- A realistic incident scenario which would address environmental, cultural, economic impacts
- Address public concerns regarding human health and wildlife impacts

Menzies shall submit a post drill report summary to OR DEQ within 60 days of completion of the drill or exercise. Menzies shall retain records of tabletop and drill/exercises for at least three (3) years and make available upon request by OR DEQ and/or USEPA.

3.8 Health and Safety Policies

Menzies's health and safety policies were established to protect personnel from the hazards posed by fieldwork. The procedures developed as part of the policies are intended to minimize the potential for exposure to hazardous materials, accidents, or physical injury during daily field activities or under adverse conditions. The procedures also specifies emergency measures that may be required during medium to worst case spill/release events.

The procedures must be observed by the Menzies personnel. Subcontractors participating in fieldwork at the Menzies sites or on off-site properties are required to prepare and maintain their own health and safety procedures. Personnel working in control zones will meet the medical surveillance, personal protection, respirator fit test, and hazardous waste operations training requirements specified by the federal Occupational Safety and Health Administration (OSHA) (29 CFR 1910.120). Menzies maintains a basic Health and Safety Plan (HASP) for Menzies first responder personnel. Fieldwork observers must also comply with the safety requirements of Menzies's corporate procedures. Menzies field participants, observers, and subcontractors must read the HASP and sign an agreement to comply with its conditions.

3.9 Recordkeeping and Internal Reporting Procedures

A facility's ability to remain in compliance depends upon proper documentation that serves as a foundation for effectively preventing the occurrence of a spill or release. The facility will maintain the following records onsite:

- Onsite training records of all individuals, including initial and annual refresher training and any other pertinent offsite training certification;
- Preventative Maintenance Logs;
- Sampling data, including permit monitoring;

- Include the following records as part of the ICP as they occur:
  - Description of spill or other discharges;
  - Descriptions of the quality and quantity of storm water discharges;
  - All inspection and maintenance activities.
- Maintain for three years written internal inspection procedures, records of the inspection (scope on inspection, inspection personnel, inspection dates, major observations, actions resulting from inspection) performed at the facility, and incidents of noncompliance. An appropriate supervisor or inspector must sign these records. If no incidents of noncompliance are identified, the ICP shall include a certification that the facility is in compliance;
- Records of all events where rainwater from a diked area drains into a storm drain or an effluent discharge that ultimately empties into an open water course, lake, or pond, thus bypassing the in-plant treatment system;
- Note in the operating record the time, date, and details of any emergency incident that requires implementing the ICP;
- Maintain all employee training records summarized in the Training section of this plan;
- Maintain written procedures on spill notification at potential spill sites or at the main office;
- If a spill occurs where more than 1,000 gallons of oil reach navigable waters, or if harmful quantities reach navigable waters in two spill events occurring within a 12 month period, the facility must submit to the Regional Administrator within 60 days of the spill the following information:
  - Name of facility;
  - Facility owner or operator name(s);
  - Facility location;
  - Date and year of initial facility operation;
  - Maximum storage or handling capacity of the facility and normal daily throughput;
  - Facility description, including maps, flow diagrams, and topographical maps;
  - SPCCP with all amendments;
  - Cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;
  - Corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;
  - Additional preventative measures taken or contemplated to minimize the possibility of recurrence.
- Within 15 days of an emergency incident that requires implementing the ICP, a written report must be submitted on the incident to the Regional Administrator, state, and local administrator. The report must include:
  - Name, address, and telephone number of the facility owner or operator;
  - Name, address, and telephone number of the facility;
  - Date, time, and type of incident;
  - Name and quantity of materials involved;
  - The extent of injuries, if any;
  - An assessment of actual or potential hazards to human health or the environment;
  - Estimated quantity and disposition of recovered material that resulted from the incident.

In addition, the following information will also be maintained at the facility:

- Material Safety Data Sheets (MSDSs) must be available for all materials. All hazardous material or waste storage areas must maintain copies of MSDSs for all materials in these areas in a location that is readily available to all employees;
- A list of names and contact numbers of the EC, the alternate and emergency responders must be posted at each satellite accumulation point, accumulation point, and telephone. The fire extinguisher and fire alarm need to be clearly visible (40 CFR 262.34 (d)(5)(ii)).

3.10 Forms

This annex includes forms that may be used as records of incidents and inspections that provide the necessary documentation to maintain regulatory compliance. These records should be completed as necessary. All forms identified in the ICP as being an integral part of the plan should be kept with the ICP, as directed in the text.

- Aboveground Storage Tank Monthly Inspection
- Menzies Incident/Accident Report
- Initial Spill Notification
- DEQ Spill/Release Report Form
- Form 3-1: Record of Annual SPCCP Inspection
- Form 3-2: Record of Storm Water Discharge
- Form 3-3: Letter of Agreement between PDX FC/Menzies and Community Emergency Responders
- Form 3-4: Monthly Storm Water Inspection Checklist
- Form 3-5: Exercise Documentation Forms

ABOVE-GROUND STORAGE TANK
MONTHLY INSPECTION

Facility _____ **Year** _____

Tank Location _____ **Tank Size** _____ **gal**

Month	Overall Condition	ANY RUST?	TANK, PIPES, GAUGES, ETC. LEAKING?	Containment Valve Closed?	Water in Secondary Containment?	Water Discharge Documented?	Spills Around Facility?	Fire Extinguisher Present?	Comment # (Back of Page)
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									

COMMENT 1: _____

COMMENT 2: _____

COMMENT 3: _____

COMMENT 4: _____

COMMENT 5: _____

COMMENT 6: _____

COMMENT 7: _____

COMMENT 8: _____

COMMENT 9: _____

COMMENT 10: _____

COMMENT 11: _____

COMMENT 12: _____

COMMENT 13: _____

COMMENT 14: _____

COMMENT 15: _____

COMMENT 16: _____

COMMENT 17: _____

COMMENT 18: _____

SPILL INCIDENT REPORT FORM

This advisement is first notice to Corporate Claims and the HS&E Department. A complete Accident/Incident report is to be forwarded to Corporate Claims within 5 business days. Addendum reports can be added any time.

TO: CLAIMS & INSURANCE **FROM**:

Menzies ☐

Six Digit Base Code: Dept. Phone #:
IATA Airport/City Code: Department:
Date of Incident/Accident: Time of Incident/Accident:
If known, Estimate of Damage: (US Dollars)

Type

☐Aviation Liability ☐Auto ☐Environmental ☐Property ☐FYI Incident

Employee Injury

Report to Travelers: 1-800-832-7839 Claim Number:

Non-Employee Injuries: ☐Yes ☐No ☐Unsure
Ambulance Needed: ☐Yes ☐No

Description of Injury:

Company Property Involved or Damaged: ☐Yes ☐No
☐Company Automobile and Asset Number:
☐Company Mobile/Ground Equipment: Type: Asset Number:
☐Company Other:
☐Company Buildings

Non-COMPANY Property Involved or Damaged: ☐Yes ☐No
☐Aircraft If Aircraft, Note Type of Aircraft: Tail #
☐Auto ☐Building ☐Other, specify:
☐Company Mobile/Ground Equipment: Type:

Owner of Non-Company Property, if known:
Brief Description of Injury or Property:
Description of Incident/Accident:

SPILL INCIDENT REPORT FORM

Spill Response Notification Form

Reporter's Last Name	First Name	Middle Initial
Position:	Phone: Day:	Phone: Evening:
Company:	Organization Type:	
Address:	City:	State: Zip:
Were Materials Discharge? (Y / N)	Confidential? (Y / N)	
Meeting Federal Obligations to Report? (Y / N)	Date Called:	
Calling for Responsible Party? (Y / N)	Time Called:	

Incident Description

Source and /or Cause of Incident:			
Date of Incident:		Time of Incident:	AM/PM
Incident Address Location:			
Nearest City:		State:	
Distance from City:		Units of Measure: Gals/Bbls	
Direction from City:		Section:	
Container Type:		Tank Fuel Storage:	
Capacity:		Units of Measure: Gals/Bbls	
Facility Fuel Storage Capacity:		Units of Measure: Gals/Bbls	
Facility Latitude:	Degrees:	Minutes:	Seconds:
Facility Longitude:	Degrees:	Minutes:	Seconds:

Materials

CAS Code:	Discharged Quantity:	Unit of Measure: Gals/Bbls
Material Discharged in Water:	Quantity:	Unit of Measure: Gals/Bbls

Response Action

Actions Taken to Correct, Control or Mitigate Incident:

Response Action Cont.

Were there Evacuations? (Y / N)	Number Evacuated:
Was there any Damage? (Y / N)	Damage in Dollars (approx.)"
Medium Affected:	
Description:	
More information About Medium:	

Additional Information

Any information about the incident not recorded elsewhere in the report:

Caller Notifications

EPA? (Y / N)	USCG? (Y / N)	State? (Y / N)
Other? (Y / N)		
Describe:		

Impact

Number of Injuries:	Number of Deaths:

SPILL/RELEASE REPORT

State of Oregon Department of Environmental Quality

1 - GENERAL INFORMATION **OERS No. _____**

a. Company/Individual Name: _____

b. Address: _____

_____

c. Company Contact Person:_____

d. Phone Number(s): _____

e. Specific on-site location of the release (and address if different from above):

_____

_____

_____

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

a. Date/Time Release started:_____ Date/Time stopped:_____

b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):

ODEQ _____

OERS _____

NRC _____

Other (describe):_____

c. Person(s) reporting release:_____

d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:

_____

_____

Please attach copies of material safety data sheets (MSDS) for released material(s).

e. The release affected: ____Air ____Groundwater ____Surface Water ____Soil ____Sediment

f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):

_____

Has the release reached the surface water identified above?: ____Yes ____No
Could the release potentially reach the surface water identified above? ____Yes ____No
Explain:_____

_____

g. Depth to nearest aquifer/groundwater:_____

Is nearest aquifer/groundwater potable (drinkable)? ____Yes ____No
Has the release reached the nearest aquifer/groundwater? ____Yes ____No
Explain:_____

_____

h. Release or potential release to the air occurred? ____Yes ____No
Explain:_____
_____

i. Was there a threat to public safety? ____Yes ____No
j. Is there potential for future releases? ____Yes ____No
Explain:_____
_____

k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):
_____
_____
_____

l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

3 - SITE INFORMATION

a. Adjacent land uses include (check all that apply and depict on site maps):
____Residential ____Commercial ____Light Industrial ____Heavy Industrial ____Agricultural
____Other (describe):_____
b. What is the population density surrounding the site:_____
c. Is the site and/or release area secured by fencing or other means? ____Yes ____No
d. Soil types (check all that apply): ____alluvial ____ bedrock ____ clay ____sandy
____silt ____ silty loam ____artificial surface (cement/asphalt/etc.)
e. Describe site topography:_____
_____
_____

4 - CLEANUP INFORMATION

a. Was site cleanup performed? ____Yes ____No
If No, explain:_____
_____

b. Who performed the site cleanup?
Company Name: _____
Address: _____
_____
Cleanup Supervisor: _____
Phone Number(s): _____

c. Has all contamination been removed from the site? ____Yes ____No
If No, explain:_____
_____

d. Estimated volume of contaminated soil removed:_____

e. Estimated volume of contaminated soil left in place:_____

f. Was a hazardous waste determination made for cleanup materials? ____Yes ____No

g. Based on the determination, are the cleanup materials hazardous wastes?
____Yes ____No If Yes, list all waste codes:_____

h. Was contaminated soil or water disposed of at an off-site location? ____Yes ____No
If yes, attach copies of receipts/manifests/etc., and provide the following information:
Facility Name:_____
Address: _____
_____
Facility Contact: _____
Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? ____Yes ____No
If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):
_____
_____
_____
_____

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):
_____
_____
_____
_____
_____

5 - SAMPLING INFORMATION

Attach copies of all sample data and indicate locations of sample collection on maps.

a. Were samples of contaminated soil collected? ____Yes ____No ____N/A
b. Were samples of contaminated water collected? ____Yes ____No ____N/A
c. Were samples collected to show that all contamination had been removed?
____Yes ____No ____N/A
d. Describe sampling activities, results and discuss rationale for sampling methods:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

6 - SPILL REPORT CHECKLIST

To ensure that you have gathered all the information requested by the Department in this Spill/Release Report, please complete the following checklist:

____ Map(s) of the site showing buildings, roads, surface water bodies, ditches, waterways, point of the release, extent of contamination, areas of excavation and sample collection locations attached.

____ Material Safety Data Sheet (MSDS) for released material(s) attached. **Note: an MSDS is not required for motor fuels.**

____ Sampling data/analytical results attached.

____ Receipts/manifests (if any) for disposal of cleanup materials attached.

____ Contractor reports (if any) attached.

If you would like to submit your report by e-mail it can be submitted electronically to:
DOSPILLS@deq.state.or.us

Form 3-1: Record of Annual SPCCP Inspection

This inspection record documents annual inspections conducted in accordance with 40 CFR 112. The facility inspection record must be kept for a period of three years.

Date	Review Supervisor And Title	Modifications/Changes to Facility Operations (as a result of the inspection)

Form 3-2: Record of Storm Water Discharge

As required by 40 CFR 112, any time that storm water is discharged from a firewall or dike, a record of inspection, discharge, and oil removal is to be maintained. PDX FC/Menzies maintains dikes for secondary containment of the Jet A Bulk Storage ASTs. The following table will be used as a discharge record from the dike.

Tank ID	Date of Discharge	Quantity Discharged	Oil Sheen Present?	Supervisor's Signature	Comments

Form 3-3: Letter of Agreement Between PDX FC/Menzies and Community Emergency Responders

From: _____

Facility name PDX Fuel Company, LLC Consortium Fuel Storage and Distribution
Facility address 5000 NE Marine Drive, Portland Oregon
Latitude 45°35'50"
Longitude 122°36'45"
Facility POC _____

To: _____

Organization name _____
Organization address _____
Organization POC _____

Date _____

This letter serves as an agreement between the _____(organization) and the _____ (facility) with regard to emergency response for Jet-A (petroleum) releases. The facility stores a maximum of 3,360,000 gallons of Jet A in three aboveground storage tanks.

The _____ (organization) has received a copy of the _____ (facility) Integrated Contingency Plan (ICP). The ICP is a document that defines response procedures for emergency incidents occurring at the _____ facility. The _____ (organization) has responsibilities in the emergency response process. The appropriate personnel at the _____ (organization) are aware of their responsibilities as they relate to emergency response and have been appropriately trained.

If changes need to be made concerning the applicability or implementation of this agreement, please contact the facility representative listed above. A signed copy of this agreement will be kept with the ICP at the facility.

_____ _____
Name of Organization Representative Date

_____
Signature of Organization Representative

Form 3-4: Monthly Storm Water Inspection Checklist

	YES	NO	NA
Are dikes free of leaks and rainwater accumulation?			
Are ditches, ponds, waterways, and drainage pipes around the facility free of leaks and spills?			
Do any areas on the facility show evidence of excessive erosion?			
Are erosion control methods in good condition and operating properly?			
Do any of the areas show evidence of receiving excessive storm water runoff?			
Are barriers to runoff in good condition and operating properly?			
Are materials stored to minimize their contact with storm water?			
Are all storm water BMPs being implemented?			

COMMENTS:

Form 3-5: PDX FC/Menzies
Integrated Contingency Plan
EXERCISE DOCUMENTATION Forms

Qualified Individual Notification Drill Logs

Drill Log:		
Date:		
Company:		
Qualified Individual(s):		
Emergency Scenario:		
Evaluation:		
Changes to be Implemented:		
Time Table for Implementation:		

Spill Management Team Tabletop Exercise Logs

Tabletop Exercise Log:	
Date:	
Company:	
Qualified Individual(s):	
Emergency Scenario:	
Evaluation:	
Changes to be Implemented:	
Time Table for Implementation:	

3.11 Hazard Identification Tanks

The fuel facilities store primarily Jet A fuel which has an approximate flashpoint range of 100-150 degrees Fahrenheit. Jet A is classified as a non-persistent petroleum fuel according to 40 CFR 112 appendix E.

HAZARD IDENTIFICATION - TANKS

Date of Last Update: July 2003

Tank No.	Substance Stored (Oil and Hazardous Substance)	Quantity Stored (gallons)	Tank Type/Year	Maximum Capacity (gallons)	Failure/ Cause
Aboveground Storage Tanks (AST)					
1A	Jet Fuel A	840,000	Fixed roof/1972	840,000	None
2A	Jet Fuel A	840,000	Fixed roof/1972	840,000	None
3	Jet Fuel A	1,680,000	Fixed roof/1996	1,680,000	None
USF	Jet Fuel A	5,000	Double wall steel/1996	10,000	None
N. Autogas	Unleaded	10,000	Double wall steel/2017	10,000	None
N. Autogas	Diesel	10,000	Double wall steel/2017	10,000	None
Generator	Diesel	<500	Double wall steel/2003	500	None
Underground Storage Tanks (UST)					
S. Autogas	Unleaded	<10,000	Double wall fiberglass	12,000	None

SECONDARY CONTAINMENT CAPACITIES

Date of Last Update: July 2003

Secondary Containment No	Substance Stored in Tank	Maximum Quantity Stored in Tanks (gallons)	Surface Area/Year	Maximum Capacity of Secondary Containment (gallons)	Failure/ Cause	Largest Tank Capacity
1A	Jet A	840,000	37,369ft^2./1972	1,010,110	None	840,000
2A	Jet A	840,000	37,369ft^2./1972	1,010,110	None	840,000
3	Jet A	1,680,000	46,781ft^2./1996	1,941,271	None	1,680,00

Formula: L xW = Surface Area. Surface Area x Height (Dike Wall) = Cubic Feet. 1cu ft. = 7.48 gallons.
Note: Tank Diameter has been deducted. Tank 1A and 2A share same containment.

3.12 Vulnerability Analysis

In this section entitled vulnerability analysis, PDX FC/Menzies addresses the potential effects of a fuel spill to human health, property, and the environment.

3.12.1 Planning Distance

If the ASTs were to rupture, most of the fuel would be contained within the diked area. Some fuel would infiltrate and could adversely impact soil and groundwater. Fuel released beyond the facility may occur due to dike failure, overspillage of the dike, or earthquake conditions.

Any release outside the diked area would drain west to the airport storm water drainage system that consist of ditches and sewers. The airport storm water sewer system discharges into the Columbia Slough. The airport discharge is near a levee and pump station. The pump station delivers the storm water runoff into the lower Columbia Slough. The lower Columbia Slough connects with Smith and Bybee Lake and eventually releases into the Willamette River which discharges into the Columbia River.

The vulnerability of environmental receptors downgradient of the facility is relatively small for the following reasons:

- The site drains into an airport drainage network with a large storage capacity.
- The airport drainage network releases into the upper Columbia Slough which is retained by a Multnomah County Drain Commission levee providing considerable storage capacity.
- Jet A fuel is a non-persistent petroleum substance and would naturally dissipate.

Planning distances are used to describe fuel transport to and in navigable waters. The planning distances for the site are as follows:

DI = Distance from the nearest opportunity for discharge, XI, to a storm drain or an open channel leading to navigable water.

D2 = Distance through the storm drain or open concrete channel to navigable water.

D3 = Distance downstream from the outfall within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down as determined by the planning distance formula.

D4 = Distance from the nearest opportunity for discharge, X2, to fish and wildlife and sensitive environments not bordering navigable water.

DI = < 100 feet

D2 = 2.5 miles

D3 = 8-9 miles (Bybee Lake, Willamette River, Columbia River)

D4 = 2,000 feet (Columbia River over five foot flood levee)

Assuming a length of 13,200 feet (2.5 miles) from the point of discharge through a storm drain to navigable water, the travel times (distance/velocity) are:

8.8 hours at a velocity of 25 feet per second

73.3 hours at a velocity of 3 feet per second

110 hours at a velocity of 2 feet per second

Storm drains are located in close proximity to the facility and can provide a direct pathway to navigable waters. Since DI is less than or equal to 0.5 mile, a discharge from the facility could pose substantial harm because the time to travel the distance from the storm drain navigable water (D2).

Planning distance calculations and discussion was based in part on the following characteristics of the facility and immediate vicinity.

- The nearest body of navigable water is assumed to be the Columbia Slough and is located approximately 2.5 miles from the site.
- The topography near the tank farm is relatively flat with a mild slope towards the airport drainage system to the west. Any release from the subject site will travel through the airport storm sewers and unnamed drainage ditches on the airport property to the upper Columbia Slough.
- For planning distance calculations, it is assumed that a fuel release would overspill the levee, although highly unlikely.
- Conveyances are considered adequate to handle any flow released from the tank farm.
- Bybee and Smith Lake have fish and wildlife sensitive environments.

Generally, the groundwater flow would be towards the Columbia River. Any release at the facility has the capacity to infiltrate through the soil to groundwater. The City of Portland does not have any wellhead protection areas near the facility. Contaminated groundwater however, could flow to the Columbia River.

(1) Water intakes (drinking, cooling, or other);

None.

(2) Schools;

Woodlawn School is ½ mile from the Columbia Slough, although no impact is likely.

(3) Medical facilities;

None within reach of a release.

(4) Residential areas;

None, there are no nearby residences.

(5) Businesses;

Broadmoor Golf Course borders the airport drainage.

(6) Wetlands or other sensitive environmental;

Columbia Slough

(7) Fish and wildlife;

Bybee and Smith Lake, Ridgeland National Wildlife Preserve, 20 miles downstream.

(8) Lakes and streams;

Bybee and Smith Lake are on the Columbia Slough approximately 5 miles past the pump station levee

(9) Endangered flora and fauna;

Unknown.

(10) Recreational areas;

None

(11) Transportation routes (air, land, and water);

Portland International Airport, which provides air transportation for commercial domestic and international flights. Airport terminals are located approximately 3/4 mile east of the facility. Taxiway ''B' and 'I' are located within approximately 700 feet to 100 feet of the fuel storage facility.

Marine Drive runs east/west and is located approximately 1,000 feet mile north of the facility.

The Columbia River is located approximately 2,000 feet north of the facility.

(12) Utilities;

Gas, water, and electricity are provided to the PDX FC/Menzies site.

Call Oregon Utilities Notification Center 1-800 332-2344 for precise locations of utilities.

(13) Other areas of economic importance (e.g. beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats;

None

3.13 Analysis of the Potential for an Oil Spill

Because the facility handles fuel, the probability of an oil spill exists. However, spill prevention is the best method to protect the environment, public, PDX FC/Menzies personnel and assets, and

public property against the threat of a spill. This goal is achieved through personnel training, adherence to proper operational and safety procedures, and sound engineering practices.

The number of spills at this facility over the past several years shows that prevention, containment, and detection systems in place at the facility have been affective.

The following are considered the most likely risk probability for a spill location and event.

Location	Product	Quantity (gallons)	Probability	Likely Consequence	Impact
Valve/piping Integrity	Jet A	<50	low	Confined to secondary containment.	Slight
Hydrant System Integrity	Jet A	<50	low	Subsurface impact	Moderate
Earthquake AST Rupture	Jet A	1,680,000	low	Worst case discharge	Substantial
Overfilling	Jet A	<5,000	low	Spilled to ground	Moderate
Terrorist Act AST Rupture	Jet A	1,680,000	low	Worst case discharge	Substantial

3.14 Small/Average Most Probable Discharge

(2,100 gallons or less)

Date: March 31, 2014
Time: 1600 hour
Weather: Clear, wind from the SW at 5 mph
Temp: 55°

During filling a Tank 1-A, the terminal operator (TO) disengaged the high level alarm to squeeze a little more fuel into the tank. The TO then receives a phone call and forgets about the fuel levels in the tank. After hanging up the telephone, the TO glances outside and notices fuel coming out of the vents.

TIME EVENT

1601 The TO shuts down the pipeline influent.

1603 The TO notices several puddles of fuel around the tank.

1615 The TO contains spill with absorbent pads and boom from the office to contain spill.

1620 The TO returns to the office. He estimates the spill volume to be 2,100 gallons and contacts the Facility Manager (FM). The FM instructs TO to begin notification procedures.

1650 The FM arrives on site (response time 35 minutes) and re-evaluates the severity of the spill. It is determined that a majority of the fuel remained near the tanks in the secondary containment.

1700 The terminal's spill response contractor, CCS, is notified of the incident and requested to respond with equipment and manpower to further evaluate the spill and start clean-up operations.

1705 Brad Keith (EC) of Menzies's Office of Environmental Affairs is contacted.

1740 State emergency response representative (ORES) arrives (1 hr and 10 minutes response time).

1830 Contractor personnel start to arrive at the terminal and following a brief safety meeting with Menzies, CCS personnel are directed to the spill area and permitted to start staging the clean-up operation, including removal of impacted soils (response time 2 hours).

1900 Contractor crews with protective clothing and organic vapor respirators manually start to remove the absorbent pads and boom.

2000 With the possibility of product reaching the groundwater, hourly monitoring of existing water monitoring wells will begin. Estimate that 100 gallons reached the groundwater through nearby drainage swales. In the event that product is detected, pumping of water wells will begin. Using two vacuum trucks obtained from IW, the product/water mixture will be pumped into available storage tanks.

2100 Following the soil removal, an estimated 1,000 gallons infiltrated the soil. Terminal personnel and local environmental agencies examine the exposed soil for evidence of saturation which requires additional soil removal. Following this evaluation, appropriate gas testing mobile equipment is supplied to start a more aggressive soil removal.

0600 State emergency response personnel On-Scene Coordinator (OSC) and FM/IOSC/QI agree that sufficient soil has been removed to eliminate any threat to the environment, pending follow up test results. All contaminated soil has been spread on visqueen until dump site disposal can be arranged, according to disposal program outlined in Integrated Contingency Plan (ICP).

1000 Following a review of clean-up operations and various test results taken by both state emergency response personnel and the clean-up contractor, it is agreed that a long term monitoring program needs to be set up and the clean-up contractor needs to make disposal arrangements for the contaminated soil.

A soil-gas venting system will be installed in the spill area. Also new monitoring wells and drilled around the perimeter of the spill area, a long term sampling and remediation program will be implemented, and the water from the new monitoring wells will be pumped and treated through a carbon filtration water treatment system.

An incident investigation is conducted. The results are reviewed with State emergency response personnel.

3.15 Medium/Maximum Most Probable Discharge

(between 2,100 and 36,000 gallons or 10 percent of the worst case discharge, whichever is less)
Date: July 10, 2014
Time: 1300 hour
Weather: Wind from the north, light rain
Temp: 65°

The Terminal is due to receive Jet A fuel in Tank No. 1A with a safe fill capacity of 840,000 gallons or 20,000 barrels. Facility Manager (FM) and Terminal Operator (TO) are on duty.

TIME EVENT

1305 The pipeline dispatcher calls Terminal, notifies FM that the receipt had started at 1240 and there had been a rise in the line pressure, then the pressure dropped and stabilized.

1310 FM has the TO investigate the phone call, TO notices that the inlet valve to Tank No. 1A is closed and the flange between the valve and pipeline has burst. TO immediately notifies FM to shut down receipt.

1312 FM notifies the pipeline dispatcher to shut down receipt. FM shuts down terminal operations.

1315 The FM, now assuming the position of the IOSC/QI has TO make the necessary notifications outlined in the Emergency Notification Procedures. Also, the clean-up contractor, CCS has been alerted.

1318 TO notifies FM/IOSC/QI that the proper notifications have been made, and estimates the spill to be 36,000 gallons or 857 barrels.

1320 Airport Fire and Police Dept. arrive (response time 5 minutes) a brief safety meeting is conducted.

1325 Fire Dept. begins to put a layer of foam on top of the spilled product. Police Dept. secures the entrance and exit gates.

1330 TO reports to FM/IOSC/QI and is instructed, to get all hose and the gasoline driven pump and proceed to the stairway going to Tank No 1A.

1335 State environmental personnel (OSC) arrives (response time 20 minutes) and are briefed in a meeting with the Superintendent, Fire Dept. and Police Dept.

1345 CCS arrives on site (response time 30 minutes). FM/IOSC/QI evaluates clean up options with the unified command (OSC, Fire, Police and CCS). It is determined that the area is fully contained and the area is covered with foam. Fire Dept. will continue to standby and monitor.

1355 Three vacuum trucks arrive, CCS starts staging for site clean-up, (600 gallons per minute recovery rate) begin removing product/water mixture and pump into the oil/water separator.

1400 With the possibility of product reaching the groundwater through the permeable secondary containment floor hourly monitoring of existing water monitoring wells will begin. In the event that product is detected, pumping of water wells will begin. Using two of the vacuum trucks already on site. Product/water mixture will be pumped into Oil/Water separator, and if test results warrant, a carbon filtration system will be installed to further treat water.

1630 A safety meeting is conducted by the Unified Command. Center vapor generation is minimal at this point and the Police and fire Dept. elect to leave the scene.

1730 Word is received that the Advanced Remediation Technologies, Inc (Environmental and Engineering Consultant) representatives are en-route and will be on site the following morning.

1900 CCS notifies Superintendent that the spilled product has been removed from the dike area around Tank No. 1A and soil removal will begin.

1930 The dike area around Tank No. 2 will be stripped of dirt and gravel and new fill will be installed. All contaminated soil from the impacted area will spread on visqueen until dump site disposal can be arranged. Any required permits will be obtained from the necessary state regulatory agencies.

DAY 2

0800 Advanced Remediation Technologies, Inc. representatives arrive on site. Meeting conducted with the IOSC/QI and OSC.

An incident investigation is conducted. The results are reviewed with State environmental personnel.

3.16 Worst Case Discharge

Three tanks with a total capacity of 3,360,000 gallons or 80,000 barrels are contained within secondary containment at the Portland, Oregon facility. The largest tank, No. 3 has a shell capacity of 1,680,000 gallons, or 40,000 barrels. This worst case discharge from the Portland terminal results from a catastrophic failure of that tank is due to a structural failure of the shell material. At the time of the rupture, the tank was containing Jet A fuel.

Nature and Cause of Spill

Date: September 15, 2014 Time: 3:30 PM

Weather: Warm, 30 mph winds, no rain for the past 15 days

Temp: 75°

There are three people on duty at the terminal, a Facility Manager, and two terminal operators. The terminal is in the process of receiving a product pipeline delivery. A loud thunderous noise is heard by the employees and they notice that Tank No. 1A has experienced a partial rupture of the side wall.

Immediate Actions

The Facility Manager (FM) is working in the office with one of the terminal operators (OP 1) when the noise is heard. After verifying the safety of OP 1 and his immediate environment, FM proceeds outside to check on the safety of the additional people on site while OP 1 assesses any damage to the office building, phone lines, electricity, and alarm systems. A visual inspection of the tank farm area by the FM reveals that a large amount of product is escaping from a rather large hole on the lower side wall on Tank No. 2A. Product is escaping at an estimated rate

of 4,000 barrels per hour. Some product is forming into pools at various points around the tank and is spilling over the dike wall towards airport drainage ditches. All other tanks appear to be intact; however, dike surrounding Tank No. 3 has shifted, creating a slight separation at the northwest corner.

The FM shuts down terminal operations. OP 1 has determined that no apparent damage has occurred to the office building. A cellular phone and the Integrated Contingency Plan (ICP) is retrieved from the office by the FM and evacuation of the terminal site takes place through the main entrance gate. Everyone is accounted for on the Service Road outside the terminal.

OP 1 is instructed to begin making notifications using the ICP as a reference. OP 2 remains at the main entrance to control access, and the FM begins a further assessment of the situation. The FM, now assuming the position of the IOSC/QI, has determined that the services of CCS (primary response contractor), and Terra Hydr (secondary response contractor) are needed. The following order of calls are made: Airport Fire Department (911), Airport Communication System, and ORES. OP 1 then calls the National Response Center, EPA, and the remaining terminal personnel that are not on site. The Aviation Department temporarily closes air traffic.

At 3:47 p.m. the FM/IOSC/QI returns to the terminal and unlocks the gate to allow access to response personnel. Equipment staging sites are set up in the parking lot next to the terminal office building with a secondary site to be the vacant field next to the tank farm. Because of high levels of vapor concentrations being generated by the continuous flow of product, the FM/IOSC/QI determined that responders will need to wear SCBA, eye protection and protective clothing. Continued assessment and monitoring of the area will also be required. Wind is to the southeast and has the potential to send vapors to neighboring facilities and away from the remainder of the terminal. OP 1 is directed to contact these facilities and notify them of the incident.

Police arrive at 3:48 p.m. to secure the area.

The Airport Fire Department arrives at 3:48 p.m. and, equipped with appropriate PPE and explosion detection meters, enters the terminal site. After a brief safety meeting, it is determined that the Fire Department will secure the area and standby. The Fire Department is advised of the neighboring facilities and concern over the vapors traveling towards them. The Fire Department decides that evacuation of the adjacent properties is not necessary at this time. Assisted by the Fire Department HAZMAT team, OP 1 and OP 2, suit-up in PPE and begin gathering sorbent materials and shovels from the facility trailer for containment efforts at the facility. A team is sent out on to airport property to contain released fuel in airport drainage ditches and sewer. The FM/IOSC/QI is notified that Multnomah drain commission has sent someone to shut down pumps in the upper Columbia Slough.

Containment and Recovery Actions

After a brief safety meeting at 4:05 p.m., it is determined that an immediate response action will include transferring product from Tank No. 3 to available storage Tanks No. 1A and 2A (recovery rate of 84,000 gallons per hour). Airport Fire Department and Menzies employees leave the site to put sandbags on top of the upper Columbia Slough levee as an added precaution.

At 4:30 p.m. two other facility employees arrive at the scene and the FM/IOSC/QI sets up a command center in the terminal office. He meets with the Menzies employees and briefs them on his assessment and the PPE requirements for the area. The FM/IOSC/QI then requests that one facility employee coordinate with CCS and Terra Hydr.

A representative from a district office of the Environmental Protection Agency (EPA) arrives at 4:30 p.m. and meets with the FM/IOSC/QI and CCS to gather facts and to assess the situation. Another facility employee is instructed by the FM/IOSC/QI to begin working with the EPA to review current clean-up efforts and to develop a long term plan for any remediation work that may be needed.

EPA Region X has responded back to FM/IOSC/QI via telephone that they will arrive in 4 to 5 hours.

At approximately 5:30 p.m., CCS has arrived with three people, three vacuum trucks, and equipment to assist in containment and clean-up operations. It is determined by CCS and the FM/IOSC/QI to have the three vacuum trucks assist in recovering the product that has formed in various pools through-out the tank farm. In the event that

they may be needed, CCS has been requested to provide additional vacuum trucks and pumps. CCS has access to several pump trucks in the Portland area. Due to the severity of the spill and the porosity of the soil, the FM/IOSC/QI requests that CCS contact a well drilling contractor for installation of a product recovery well system.

At 5:45 p.m. CCS personnel leave site to investigate impact on the Columbia Slough. Skimmers and booms are ready to be mobilized.

At 6:40 p.m. local terminal personnel continue to staff security, communications and field operations functions pending the arrival of additional members of the CCS team. The FM/IOSC/QI then determines additional staffing needs to accommodate shifts and activates additional personnel through CCS. The FM/IOSC/QI assigns the role of Safety Manager to a facility employee and coordinates with the section chiefs to address potentially hazardous and unsafe incident conditions. He determines the adequacy of PPE equipment by monitoring and helps to limit extent of entry by establishing exposure zones. An incident-specific safety plan, including emergency escape procedures, is developed.

At 7:15 p.m. CCS personnel indicate that most of the fuel released to the Columbia Slough has dissipated. They observed a sheen on the surface and mobilized absorbent booms to mitigate.

At 7:30 p.m. the trucks requested arrive, and begin loading (recovery rate of 88,000 gallons). Personnel arrive from CCS at approximately 9:00 p.m. and begin working with the FM/IOSC/QI to support and supplement the clean-up activities. A 12-hour shift rotation is established to relieve personnel. A Menzies employee is assigned the task of organizing lodging and catering arrangements with local businesses.

At 9:45 p.m. the FM/IOSC/QI directs a Menzies employee to work with appropriate agencies to ensure the protection of wildlife and environmentally sensitive areas. The major environmental resource concern is the potential of contamination in the Columbia Slough. Contamination has been effectively contained behind the levee of the upper Columbia Slough and removal of oil is underway. While all efforts are being made to contain and quickly remove accumulated product, due to the porosity of the soil, there is likely to be vertical migration at those exposed areas which are not impervious. Other resource concerns include the economic disturbance to businesses in the vicinity. The FM/IOSC/QI is directed to ensure that all funds required to carry out the response activities are in place.

Material and Storage Disposal

The petroleum product collected from the containment area is being pumped into available storage tanks on-site and into tank trucks. The non-liquid wastes are being stored in an established waste storage area in the parking area of the terminal, appropriately marked as hazardous materials and secured.

Notification

The OP 1 made the initial contacts; however, the FM/IOSC/QI maintains in contact for verbal updates to State and Federal agencies.

Volume of Material Recovered

In the first 12 hours 302,000 gallons (36%) have either been recovered or transferred to other tankage.

3:30 a.m., Tank No. 1A is completely empty.

The volume discharged was 554,000 gallons. The amount of product that was loaded on to trucks and returned to storage tanks, as well as the amount of product that was transferred from Tank No. 3 and put in to storage tanks was 302,400 gallons. Ultimate disposal of product at a later time will include any product that was contaminated by temporary storage in available storage tanks.

OTHER ACTIONS

The gross contamination is removed in four days of operation and remediation efforts are underway. The area surrounding the outside of the containment wall, the airport drain system, and ground water conditions in the vicinity will be monitored as required by state and federal regulations.

Within approximately 12 hours, a subcontractor arrives to install a recovery well system to recover product from the groundwater. A soil-gas venting system will also be installed in the spill area as part of the initial recovery system.

The Menzies Office of Environmental Affairs will work with the EPA to develop a sampling program, which will evaluate the extent of contamination in the soil and groundwater. The anticipated remediation program will be coordinated through the EPA.

FOLLOW UP

A post incident review meeting will take place within two weeks to evaluate the effectiveness of the facility's response plan and the status of all regulatory compliance issues. Discussions with the EPA will be ongoing during remediation and subsequent monitoring of environmental conditions.

3.17 DISCHARGE DETECTION SYSTEMS

Discharge Detection by Personnel

Terminal operators perform the following terminal inspections:

DAILY:

General condition of tank yard	Hoses, swivels, and nozzles
Security, fire and safety features	Ground reels, cables and clamps
Fuel leak evidence	Fire extinguishers
Storage tank sumps	Waste fuel tanks
Filter sumps	

MONTHLY:

Filtration testing	Floating suctions
Ground cable continuity	Fuel meter seals
Signs & placards	Fire extinguishers

SEMI-ANNUALLY:

Line strainers	Emergency shutdown system
Distribution piping	Vista HT-100 leak detection test

ANNUALLY:

Storage tank interiors	Tank vents
Meter calibration	Tank high level controls

Pressure gauges	Cathodic protection
Filter Elements	Facility condition
Water Defense System	

Automated Discharge Detection

The terminal is equipped with high level and high-high level audible and visual alarms. The loading/unloading racks all have deadman devices, which will automatically stop flow if the attendant releases the handle.

3.18 Worksheet to Plan Volume of Response Resources For Worst Case Discharge

Part I	Background Information		
Step A	Calculate Worst Case Discharge in Barrels (Appendix D)		40,000
Step B	Oil Group[1] (Table 2 and section 1.2 of Appendix F)		1
Step C	Operating Area (choose one)		
	Nearshore/inland/Great Lakes ☐	Rivers and Canals ☒	

Step D	Percentage of Oil (Table 2)		
	Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
	80	10	10
Step E1	On Water Oil Recovery	Step D2 x Step 1	4,000
Step E1	Shoreline Recovery	Step D3 x Step 1	4,000
Step F	Emulsion factor (Table 3 of Appendix F)		1
Step G	On Water Oil Recovery Resource Mobilization Factor (Table 4 of Appendix F)		

Tier 1	Tier 2	Tier 3
0.30	0.40	0.60

1 A facility that handles, stores or transports multiple groups of oil must do separate calculations for each group on site except those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation the volumes of all products must be summed to determine the percentage of the facilities total oil storage.

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
1200	1600	2,400
Step E1 x Step F x Step G1	Step E1 x Step F x Step G2	Step E1 x Step F x Step G3

Part III Shoreline Cleanup Volume (barrels)

4,000
Step E2 x Step F

Part IV On Water Response Capacity by Operating Area

(Table 5 of Appendix F, amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
1,500	3,000	6,000

Part V On Water Amount Needed to be Identified, but not Contracted for in Advance

(barrels/day)

Tier 1	Tier 2	Tier 3
600	800	1,200
Part II Tier 1 – Step J1	Part II Tier 2 – Step J2	Part II Tier 3 – Step J3

Note: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

3.19 FEDERAL FINANCIAL RESPONSIBILITY

Page Intentional Left Blank

3.20 Menzies Aviation PERSONNEL TRAINING LOG

Page Left Intentional Blank

3.21 REPONSE CONTRACTOR TRAINING LOG, EQUIPMENT LIST, AND AGREEMENT

Page Left Intentionally Blank