CROWLEY®

Oil Discharge Prevention and Contingency Plan

Crowley Fuels LLC

Fort Yukon

Bulk Fuel Storage Facility

Crowley Fuels LLC
201 Arctic Slope Ave.
Anchorage, AK 99518

ADEC Plan #~~16~~21-CP-5193
EPA Plan #FRPAKA0093

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OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN REVISION LOG				
REVISION NUMBER	**REVISION TRANSMITTAL ATTACHED**	**REVISION DATE**	**PRIMARY REASON FOR REVISION**	**INITIAL WHEN ENTERED**
—	**Yes**	**29 July 2011**	**New facility – ODPCP submittal**	
1	**Yes**	**17 October 2011**	**ADEC RFAI Response**	
2	**Yes**	**26 April 2012**	**EPA and USCG Response**	
3	**Yes**	**13 January 2015**	**Annual review and Company update. Scenario corrections**	
4	**Yes**	**December 2016**	**ADEC Renewal**	
	Yes	**April 2017**	**ADEC RFAI Response**	
		May 2017	**ADEC Approval of Renewal**	
5		**June 2017**	**ADEC Approval for Company name change**	
6		**September 2017**	Amend to address conditions of approval; update Facility POC	
7		**April 2018**	Annual review; Administrative update and revision to Part 2	
		May 7, 2018	Amendment approved by ADEC	LAP
8		**May 2019**	Annual review and administrative updates	LAP
9		**June 2020**	Annual review and administrative updates	**LAP**
0	**Yes**	**November 2021**	Annual review and ADEC Renewal	

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Record of Annual Reviews

As provided in 33 CFR§154.1065, an annual review of this Facility Response Plan (FRP) will be conducted within one month of the anniversary date of U.S. Coast Guard (USCG) approval.

Crowley Fuels, LLC (Crowley Fuels) will submit plan amendments to the USCG immediately for changes of a significant nature. Changes of an informational nature will be submitted at the time of the annual review. The Coast Guard will approve changes before they will be incorporated. Crowley Fuels will resubmit the entire plan six months before the end of the approval period.

Records of the annual review of this FRP will be kept on the Record of Annual Reviews below. Any changes to this plan will be treated as a change to the entire FRP, and will be recorded on the Revision Log.

Date of Annual Review	Person Reviewing	Date Confirmation Letter Sent	Person Sending Confirmation Letter
Oct 2014-Jan 2015	T. Murphy, Crowley Fuels	13 January 2015	T. Murphy, Crowley Fuels
December 2016	C. Godden, Crowley Fuels	April 2017	C. Godden, Crowley Fuels
March 2018	M. Moravec, Crowley Fuels	May 2018	M. Moravec, Crowley Fuels
May 2019	M. Johnnie, Crowley Fuels	July 2019	L. Pearson, Pearson Consulting
June 2020	M. Johnnie, Crowley Fuels	June 2020	L. Pearson, Pearson Consulting
November 2021	M. Jonnie, Crowley Fuels	November 2021	L. Pearson, Pearson Consulting

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ADEC Certificate of Approval

Alaska Department of Environmental Conservation

Oil Discharge Prevention and Contingency Plan
Certificate of Approval

Certificate Number:	17CER-021.1	Plan Number:	16-CP-5193
Plan Title:	Fort Yukon Bulk Fuel Facility Oil Discharge Prevention and Contingency Plan		
Covered Facility(s):	Crowley Fuels, Fort Yukon Facility		
Plan Holder:	Crowley Fuels, LLC		
Address:	201 Arctic Slope Avenue, Anchorage, Alaska 99518		
Telephone:	907-777-5461	Fax:	907-777-5558
Region(s) of Operation (18 AAC 75.495):	Interior		
Effective Date of Approval:	June 14, 2017	Expiration Date:	May 31, 2022

This approval is subject to the terms and conditions of the applicable Alaska Department of Environmental Conservation contingency plan approval letter dated 6/14/2017 and continuing compliance with the requirements of AS 46.04 and 18 AAC 75.

Rebecca A Spiegel 6/14/2017

for Graham Wood, Approving Authority — Date
Prevention, Preparedness, and Response Program Manager

DEC Amendment Approval

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Prevention, Preparedness, and Response Program

610 University Avenue
Fairbanks, AK 99709-3643
Main: 907-451-2102
Fax: 907-451-2362
www.dec.alaska.gov

Facility #: 5547

August 21, 2020

Electronic Distribution Only

Ms. Megan Johnnie, Senior Specialist, Operations Integrity
Crowley Fuels, LLC
201 Arctic Slope Ave
Anchorage, AK 99518

Subject: **Crowley Fuels, LLC Fort Yukon Bulk Fuel Storage Facility Oil Discharge Prevention and Contingency Plan, ADEC Plan #: 16-CP-5193 Minor Amendment Approval.**

Dear Ms. Johnnie:

The Alaska Department of Environmental Conservation (department) received an application package to amend the Crowley Fuels, LLC Fort Yukon Bulk Storage Facility Oil Discharge Prevention and Contingency Plan (plan) on July 7, 2020. The submittal has been evaluated and approved as a minor amendment in accordance with 18 AAC 75.415(f) by the department. The amendment incorporates the following into the plan:

1. Update plan to reflect annual review
2. Update plan contact names and email address references
3. Update plan with NRC and O'Brien's spill reporting forms
4. Update to Table 2-1 Maintenance, Inspection and Compliance Schedule for tanks
5. Update Table 3.1.2 Oil Storage Container Information
6. Update Bibliography references in Section 3.12

The current approval certificate, 17CER-021.1 remains in effect with the original expiration date of May 31, 2022. Please provide final versions of the amendment to the parties in the format indicated in the enclosed distribution list within 30 days of this letter, if not already completed.

APPEAL: This is a final decision. Aggrieved persons with standing may appeal this decision to the Alaska Superior Court within 30 days as provided by the Alaska Rules of Appellate Procedure.

If you have any questions, please contact me at 907-255-9384 or contact John Ebel at 907-451-2102 or John.Ebel@alaska.gov.

Sincerely,

DocuSigned by:
Darryl Verfaillie
8D0546FBA5614CD...

Northern Region Manager

Enclosures: Amendment Distribution List

cc with enclosure:
John Ebel, ADEC
dnr.cplans@alaska.gov, ADNR
Dnr.nro.spills@alaska.gov
Audra.Brase, ADF&G
Leslie Pearson, Pearson Consulting

EPA Approval

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
222 West 7th Avenue, Room 537, Box 19
Anchorage, Alaska 99513-7588

July 11, 2017

Ms. Carrie Godden
Director, Facilities Engineering
Crowley Fuels, LLC
201 Arctic Slope Avenue
Anchorage, Alaska 99518-3088

RE: Review of FRPAKA0090, Crowley Fuels Facility Response Plan, Fort Yukon, Alaska

Dear Ms. Godden:

Pursuant to the Clean Water Act, 33 U.S.C. Section 1321(j)(5), as amended by the Oil Pollution Act of 1990, the United States Environmental Protection Agency (U.S. EPA) has reviewed your Facility Response Plan (FRP) and finds that it meets the requirements of Section 311(j)(5) of the Clean Water Act and 40 CFR 112.20(c)(4). Your FRP is approved for 5 years until July 11, 2022.

Note that, pursuant to 40 CFR 112.20(d)(1), the owner or operator of a facility for which a response plan is required shall revise and resubmit revised portions of the response plan to U.S. EPA within 60 days of each facility change that may materially affect the response to a worst case discharge. Changes which may require revisions to a response plan include:

- a change in the facility's configuration;
- a change in the type of oil handled, stored or transferred;
- a change in the capabilities of the oil spill response organization;
- a change in the facility's spill prevention and response equipment or emergency response procedures; and
- any other change that materially affects the implementation of the response plan.

In addition, 40 CFR Section 112.20(d)(2) provides that changes in personnel and telephone number lists included in an FRP do not require U.S. EPA approval, but should be supplied to U.S. EPA as the revisions occur.

If you have questions regarding this correspondence, please contact me at 907-271-3247 or Vivian Melde at 907-257-5000, ext. 3305.

Sincerely,

Robert S. Whittier, Jr.
On Scene Coordinator (OSC)
Emergency Preparedness and Prevention Unit

USCG Approval

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Sector Anchorage

PO Box 5800
JBER, AK 99505-0800
Staff Symbol: s
Phone: (907) 428-4190
FAX: (907) 428-4218
westernalaskafacilities@uscg.mil

16611/ANC-F-006
March 21, 2018

Crowley Fuels LLC Fort Yukon
Attn: Facility Manager
201 Arctic Slope Ave.
Anchorage, AK 99518

Dear Sir or Madam:

We have reviewed the Facility Response Plan for Crowley Fuels LLC Fort Yukon. The Facility Response Plan meets all applicable requirements in Title 33 Code of Federal Regulations Part 154 (33 CFR 154) for a "*significant and substantial harm"* facility and is hereby approved. **The approval is valid until March 19, 2023**.

You must resubmit an updated plan every five years in accordance with 33 CFR § 154.1060.

If your facility undergoes any changes outlined in 33 CFR § 154.1065 (b), you must submit corresponding revisions to the Facility Response Plan to this office within 30 days. Also, whenever you revise the Facility Response Plan, you must notify this office. Please include facility identification number ANC-F-006 in future correspondence.

If you have any questions, please contact my Facilities Branch at (907) 428-4190.

Sincerely,

S. C. MACKENZIE
Captain, U. S. Coast Guard
Captain of the Port, Western Alaska

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Cross-Reference to EPA Plan Requirements
(per 40 CFR 112.20 (h))

ITEM	SECTION/FIGURE (PAGE #)
EMERGENCY RESPONSE ACTION PLAN 40 CFR 112.20(h)(1)	
Emergency Response Coordinator (name and phone number)	~~Section 1.2~~Section 1.2
Emergency Notification Phone List(s) (names and phone numbers of federal officials, and Facility, company and contracted responders)	~~Section 1.2~~Section 1.2 (all) Figure 1-1
Spill Response Notification Form	Figures 1-2 (ADEC)
Facility Equipment List (with locations)	Section 3.6 (all) Table 3-1 Table 1-2
Facility Response Team (duties, response times, and qualifications)	Section 3.3 (all) Figure 3-1 ~~Section 1.2~~Section 1.2 (reporting) ~~Table 1-1~~Table 1-1, ~~Table 1-2~~Table 1-2 (times) ~~Section 1.5.3~~Section 1.5.3
Evacuation Plan(s) (Facility and community; condensed)	~~Section 1.3.4~~Section 1.3.4
Evacuation Plan Diagram	~~Figures 1-3~~Figures 1-3, ~~1-4~~1-4, and ~~1-5~~1-5
Immediate Actions (condensed)	Section 1.1 (all) See also Section 1.5.3
Facility Diagram(s)	~~Section 1.8~~Section 1.8 (all)
FACILITY INFORMATION 40 CFR 112.20(h)(2)	
Facility Name, Location, & Phone (physical address with street address, city or directions from nearest city, borough, and phone number)	Introduction
Latitude and Longitude	Introduction
Wellhead Protection Area (if appropriate)	N/A
Owner Name and Address	Introduction
Emergency Response Coordinator(s) (name, position, address, emergency phone number, and training)	~~Section 1.2~~Section 1.2 ~~Figure 1-1~~Figure 1-1 Section 3.3 (all) Figure 3-2 Training Section 3.9
Year of Oil Storage Start-up	Section 3.1.1
Current Operation (SIC and brief description of operations)	Section 3.1 (all) Introduction (all, SIC)
Dates and Type of Substantial Expansion	Section 3.1.1

ITEM	SECTION/FIGURE (PAGE #)
EMERGENCY RESPONSE INFORMATION 40 CFR 112.20(h)(3)	
Worst Case Response Personnel and Equipment Lists (Facility, company, and contracted personnel **and** equipment, including description, location, operational status, testing information, capacities, recoveries, and limitations)	Section 3.6 (all) Section 3.3 (all) Table 2-1 Table 2-5 Table 3-1 Table 3-2 Figure 3-3 ~~Table 1-2~~Table 1-2 Section 3.4 (all – limitations) Terminal Operations Manual (inspection logs)
Evidence of Availability (contracts or other approved means)	Section 3.8 (contracts and MOUs)
Emergency Notification Phone List(s) (names and phone numbers of federal officials, Facility responders, company responders, and contracted responders)	~~Section 1.2~~Section 1.2 (all) ~~Figure 1-1~~Figure 1-1 Figure 3-2
Spill Response Notification Form	Figures 1-2 (ADEC)
Facility, Company, and Contracted Responders	~~Section 1.2~~Section 1.2 Section 3.3 (all) Figure 3-1 Figure 3-2 Section 3.8 (all)
Facility Equipment List (with locations and testing information)	Section 3.6 (all) Table 3-1 ~~Table 1-2~~Table 1-2 Terminal Operations Manual (inspection logs)
Evacuation Plan(s) (Facility and community)	Section 1.3.4 Section 1.3.5
Evacuation Routes Diagram	Figures 1-3, 1-4, 1-5
Duties of Emergency Response Coordinator (alert all Facility personnel, notify responders, characterize discharge, notify authorities, assess hazards, assess and implement removal, coordinate response, obtain monies, and direct initial cleanup)	Section 3.3 (all) Figure 3-1 ~~Section 1.2~~Section 1.2 ~~Figure 1-1~~Figure 1-1 Section 1.5.3 Section 1.3 (all; site characterization, safety hazards)
Determination of Required Response Resources	Section 2.3.1 (all) Table 2-3 Table 2-5 (worksheet)
HAZARD EVALUATION 40 CFR 112.20(h)(4)	
Discharge History	Section 2.2
Potential Discharges (locations and potential environmental effects)	Section 2.3.2 (all) Section 3.2 (all) Section 3.10 (all) (see also, Section 1.6 Scenario)

ITEM	SECTION/FIGURE (PAGE #)
Tanks and Surface Impoundments (with labeled schematic)	Section 3.1.1 (all) ~~Figure 1-8~~Figure 1-8
Transfers To/From Transportation Vehicles and Vessels (operational description and typical volumes)	Section 3.1.2 Section 3.1 (all) Section 2.1.6
Day-To-Day Operations (description of operations capable of causing discharges and typical volumes)	Section 2.3.2 (all) Section 3.1 (all)
Secondary Containment Volumes	Section 2.1.8 (all)
Normal Daily Throughput	Section 3.1.2
Vulnerability Analysis (calculation of planning distance using Attachment C-III and potential effects on human health, property, and environment)	Section 3.2 (all) ~~Figure 1-15~~Figure 1-15 Figures 3-4 and 3-5 Section 3.10 (all) SDS (health effects; see binder in office)
DISCHARGE SCENARIOS 40 CFR 112.20(h)(5)	
Worst Case Discharge Scenario	Section 2.3.1 Table 2-3, Table 2-5 (see also, Section 1.6 Scenario C)
Small Discharge Scenario	Section 2.3.1
Medium Discharge Scenario	Section 2.3.1
DISCHARGE DETECTION SYSTEMS 40 CFR 112.20(h)(6)	
Detection by Personnel (procedures, personnel, and inspections)	Section 2.5 (all) Terminal Operations Manual
Automated Discharge Detection Equipment	Section 2.5 (all)
PLAN IMPLEMENTATION 40 CFR 112.20(h)(7)	
Implementation of Response Actions	~~Section 1.1~~Section 1.1 (all) ~~Section 1.5~~Section 1.5 (all) (see also ~~Section 1.6 Response Strategies~~Section 1.6 Response Strategies, ADEC Scenarios)
Response Equipment Used in Each Scenario	Table 2-5 ~~Table 1-2~~Table 1-2 Section 3.6 (all)
Disposal Plan and Permits	Section 1.6.9 Section 3.1.4
Containment and Drainage Plan	Section 1.6.5 ~~Figure 1-10~~Figure 1-10 (facility drainage) Section 3.2.1
SELF-INSPECTION, TRAINING, AND MEETING LOGS 40 CFR 112.20(h)(8)	
Self-Inspection Checklists and Records (tanks, secondary containment, and response equipment)	Terminal Operations Manual Section 2.1.7 (tank inspection described) Section 2.1.8 (SCA inspection described) Section 2.1.9 (piping inspection described) Section 3.6 (equipment inspection described) (Note: Records maintained at Facility)

ITEM	SECTION/FIGURE (PAGE #)
Training Exercises and Mock Alert Drills (description and record)	Section 3.9 (all) Section 2.1.2 (Note: Records maintained at Facility)
DIAGRAMS (PLAN VIEW) 40 CFR 112.20(h)(9)	
Site Diagram	~~Section 1.8~~Section 1.8 (all)
Site Drainage Diagram	~~Figure 1-10~~Figure 1-10
Site Evacuation Diagram	~~Figures 1-3, 1-4~~Figures 1-3, 1-4 and 1-5
SITE SECURITY 40 CFR 112.20(h)(10)	
Emergency Cut-Offs	~~Section 1.8~~Section 1.8, ~~Figure 1-9~~Figure 1-9
General Security (fencing, guards, lighting)	Section 2.1.5

USCG Cross Reference — 33 CFR 154.1035

REQUIRED ELEMENT			SECTION (page)
(a) INTRODUCTION & PLAN CONTENT			
1	**Facility's name and address, phone and telefacsimile number**		Introduction (page 1)
2	**Facility location description**		Introduction ~~Figure 1~~Figure 1 Figure 1-7 in ~~Section 1.8~~Section 1.8 Section 3.1
3	**Facility owner/operator name (24-hr)**		Introduction (page 1)
4	**Table of contents**		(TOC-i to TOC-iv)
5	**Cross index (if appropriate)**		This document
6	**Record of changes/Revision log**		Preface (page Revision Log i)
(b) EMERGENCY RESPONSE ACTION PLAN			
1	**Notification procedures**		~~Section 1.2~~Section 1.2
	(i)	prioritized name/phone number of persons to notify Facility personnel, facility management team, OSRO, QI & alternate; Federal, State, local agencies	~~Section 1.2.1~~Section 1.2.1 ~~Figure 1-1~~ Figure 1-1 Figure 3-2
	(ii)	initial notification form (call Nat'l Response Center)	~~Figure 1-1~~Figure 1-1 (~~Figure 1-2~~Figure 1-2 ADEC form)
2	**Facility's spill mitigation procedures**		
	(i)	Describe oil groups by volumes: Average most probable discharge, Maximum most probable discharge, Worst case discharge	Section 3.1.1 Section 2.3.1 Table 2-3 Table 2-4
	(ii)	prioritized steps to mitigate/prevent discharge Actions to be taken by facility personnel in the event of a discharge, potential discharge, or emergency involving the following equipment and scenarios: (A) Failure of manifold, transfer equipment, or hoses; (B) Tank overfill; (C) Tank failure; (D) Piping rupture; (E) Piping leak; (F) Explosion or fire; and (G) Equipment failure	~~Section 1.1~~Section 1.1 ~~Section 1.1.1~~Section 1.1.1 (Checklists) See also Section 1.5.3
	(iii)	equipment list for avg most probable discharge facility personnel responsibilities: avg most probable discharge	~~Table 1-2~~Table 1-2 ~~Section 1.1~~Section 1.1 ~~Section 1.5.3~~Section 1.5.3 Section 3.6, Table 3-1
3	**Facility's Response Activities**		
	(i)	facility personnel responsibility to respond prior to arrival of qualified individual	Section 1.5.3 ~~Section 1.1.1~~Section 1.1.1 (QI/IC is normally on site)
	(ii)	qualified individual's/alternate's responsibilities/authority	Section 3.3.4
	(iii)	facility management organization structure (ICS)	Section 3.3, Figure 3-2
	(iv)	identify oil spill removal organization and identify the spill management team	Section 3.8 Figures 3-1 and 3-2 Section 3.3
	(v)	job descriptions for each spill management team member	Section 3.3.4
	(vi)	resource providers and specific resources necessary to provide the dispersant capabilities, if pre-approved for area of operation	N/A (not pre-approved in AK)

REQUIRED ELEMENT		SECTION (page)
	(vii) providers and specific resources necessary to provide aerial oil tracking capabilities	Section 3.8 (Chadux ~~and MSRC~~)
	(viii-ix) mobile facilities/MTR in >1 COTP zone	N\A
4	**Fish and Wildlife Sensitive Environments** based on the worst-case discharge from the facility	~~Section 1.6.4~~ Section 1.6.4 ~~Section 1.6.10~~Section 1.6.10
	(i) list areas of economic importance and environmentally sensitive identified in the ACP	Section 3.10 (see sub-area plans and GRS)
	(ii) List/map/chart of areas and describe response actions to protect	Figure 3-5 Section 3.2.4 Section 3.10 ~~Figure 1-15~~Figure 1-15 Figure 3-4
	(iii) identify equipment and personnel available to protect – identify equipment available – identify personnel available [contract or other] – distance reached in 24 hours at maximum current.	~~Table 1-2~~Table 1-2 Table 2-5 Table 3-1, 3-2 Section 3.3 Section 3.2 ~~Figure 1-15~~Figure 1-15
5	**Disposal Plan**	Section 1.6.8, ~~Section 1.6.9~~Section 1.6.9 Section 3.1.4
(c)	**TRAINING & EXERCISES**	Section 3.9
1	**Training procedures**	Section 3.9
2	**Drill/Exercise procedures**	Section 3.9.3
(d)	**PLAN REVIEW AND UPDATE PROCEDURES**	Section 2.1.1
(e)	**APPENDICES**	
1	**Facility-specific information**	Section 3.1
	(i) facility physical description, facility plan showing mooring areas, transfer locations, control stations, safety equipment, piping and storage tanks:	Introduction ~~Section 1.8~~Section 1.8; Site Plan Figures Section 3.1
	(ii) identify vessels that facility transfer oil to/from simultaneously	Section 3.1
	(iii) identify 1st valve: facility piping separates transportation-related side	~~Figure 1-14~~Figure 1-14
	(iv) information on amounts oil & hazardous material at facility SDS (also maintained at facility)	Section 3.1.2 Section 3.10.1 See SDS binder in office
	(v) other information facility owner/operator for oil spill response	~~Section 1.8~~Section 1.8 (Facility Diagrams)
2	**List of contacts: include information on 24-hr contact:**	~~Section 1.2~~Section 1.2; ~~Figure 1-1~~Figure 1-1
3	**Equipment lists & records**	
	(i) equipment list necessary for an average most probable discharge facility personnel list necessary for an average most probable spill	Table 3-1; ~~Table 1-2~~Table 1-2 ~~Section 1.2~~Section 1.2 (list on page 1-3)
	(ii) reference major equipment owned oil spill removal org.	Section 3.8
	(iii) equipment owned: oil spill removal organization	Section 3.6, Table 3-2
4	**Communications plan** describe primary/alternate communications methods during discharges	~~Section 1.4~~Section 1.4

	REQUIRED ELEMENT	SECTION (page)
	5 Site-specific safety & health plan this may reference another existing plan or document	~~Section 1.3~~Section 1.3 Site Safety Plan Template included in Terminal Operations Manual (See also SDS in binder in facility office)
	6 List of acronyms and definitions	Section 3.13 (all)

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INTRODUCTION

General Information

Owner/Operator of Facility: Crowley Fuels LLC

Facility Name: Fort Yukon Bulk Fuel Terminal

Facility Address (street address or route): P.O. Box 89, FAA VORTAC Road

City, State, and U.S. Zip Code: Fort Yukon, AK 99740

Facility Phone Number: (907) 662-2408

Facility FAX Number: (907) 662-2646

Latitude (Degrees: North):	Longitude (Degrees: West):
66.57107	145.27703
degrees, minutes	degrees, minutes
Dun & Bradstreet Number:	Standard Industrial Classification (SIC) Code:
N/A	424710
Largest Aboveground Oil Storage Tank Capacity (Gallons):	Maximum Oil Storage Capacity (Gallons):
288,043 (6,858 bbl.)	750,250 (17,864 bbl.)
Number of Aboveground Oil Storage Tanks:	Worst Case Oil Discharge Amount (Gallons)
8	327,516 (7,796 bbl.) (EPA)

Facility Distance to Navigable Water. Mark the appropriate line.

0-¼ mile	¼-½ mile	½-1 mile	>1 mile
	X		

The primary contact for this plan is:

Megan Johnnie
~~Senior Specialist, Operations Integrity~~ Safety, Facilities & Compliance Manager, Environmental Compliance
Crowley Fuels LLC
201 Arctic Slope Ave
Anchorage, AK 99518
(907) 777-5501
Fax: (907) 777-5558

Applicability of Substantial Harm Criteria

Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes X No

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons *and*, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons *and* is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons *and* is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

Yes No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons *and* has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes No X

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submittal information is true, accurate, and complete. I further certify that the resources needed to implement the plan will be committed as necessary and appropriate.

Signature: Scott C. Mulvihill

Name: Scott Mulvihill

Title: Manager, Terminal Operations

Date: 24 June 2020

Certification

This Oil Discharge Prevention and Contingency Plan (ODPCP) provides action plans and reference material which implement and meet applicable State of Alaska requirements for oil spill contingency planning under 18 AAC 75. The ODPCP sets forth the policy and objectives of Crowley Fuels LLC, to plan for oil discharge actions and is written to meet applicable guidelines.

This ODPCP is applicable to the operations at the Crowley Fuels LLC Facility in Fort Yukon, Alaska. It is written as a working plan for oil discharge prevention, control, containment, and cleanup. The contents of this ODPCP reflect a carefully thought out approach for responding to pollution incidents using accepted procedures and sound operational strategies.

In accordance with State and federal regulations and by my signature, I verify acceptance of this ODPCP and certify that it is within my authority to commit and provide all the necessary manpower, equipment, and other oil discharge prevention and response resources, including the stated contractual cleanup agents, as necessary to implement this ODPCP and to control, cleanup, and mitigate any discharge originating from the facility covered by this ODPCP while owned and operated by Crowley Fuels LLC.

The ODPCP is designed to meet the requirements of the Alaska Department of Environmental Conservation regulations contained in 18 AAC 75, Article 4, US Coast Guard 33 CFR 154, and of the EPA per 40 CFR 112.20.

Signature: Katharine Fontaine

Name: Katharine Fontaine

Title: Crowley Fuels LLC, Vice President Operations

Date: November 2021

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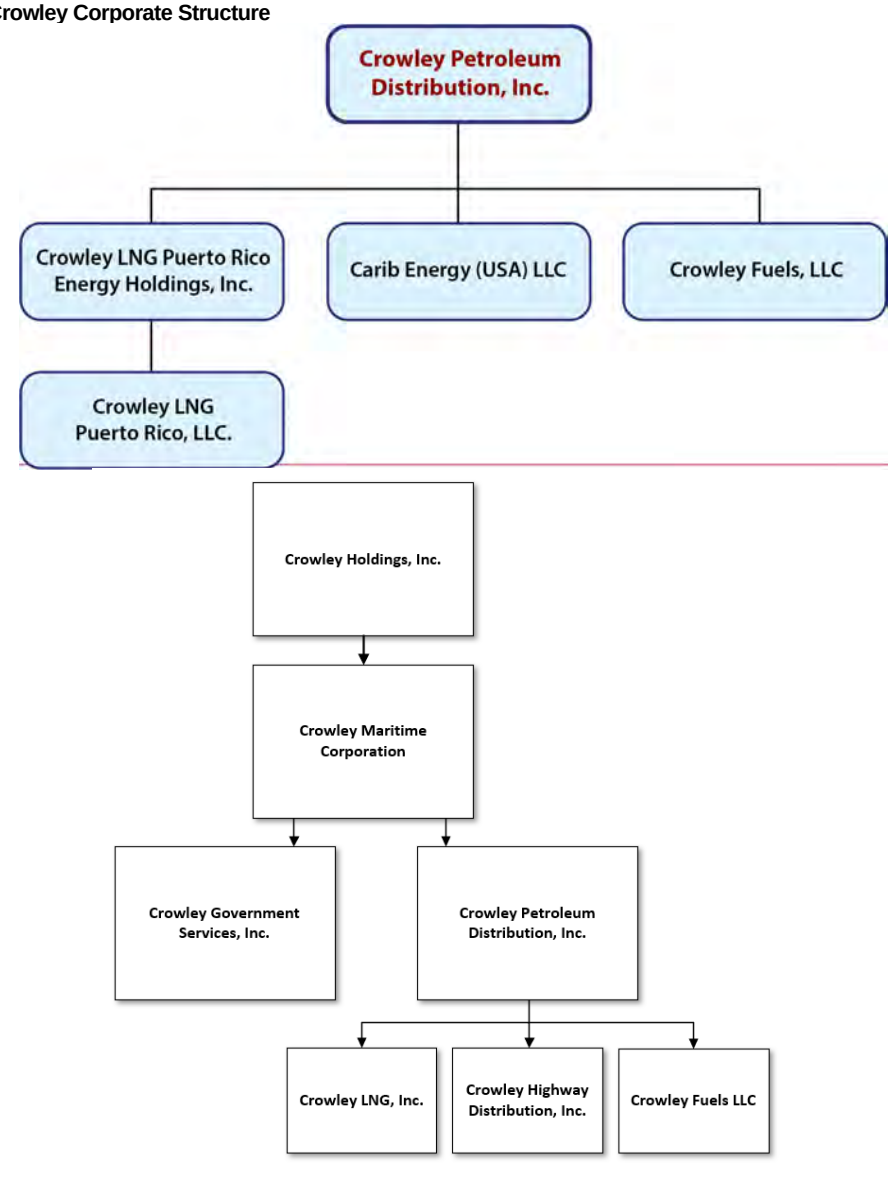
This Oil Discharge Prevention and Contingency Plan (ODPCP)/Facility Response Plan (FRP) is to be followed by employees of the Crowley Fuels, LLC (Crowley Fuels) Fort Yukon Bulk Fuel Storage Facility. Crowley Fuels, through a chain of wholly owned subsidiaries, belongs in the Crowley Petroleum Distribution Inc. (Crowley) family of companies. Crowley, as the holding and parent company of Crowley Fuels, provides administrative and emergency response support personnel.

Crowley Corporate Structure



The Ft. Yukon Facility is located approx. 1,700 feet from the Yukon River on the north bank (Figure 1). The Facility is within the Interior Alaska Subarea.

Facility Address:	Crowley Fuels LLC P.O. Box 89 Fort Yukon, AK 99740 Phone: (907) 662-2408 FAX: (907) 662-2646
Oil storage start-up date:	2011

The Facility distributes petroleum products (gasoline and diesel) by delivery truck to residential and commercial customers in Ft. Yukon, and also sells packaged fuel and oil products from its retail store. Product is delivered to the Facility during the open water season by river barges ranging in size up to 7,600 barrels capacity.

This ODPCP/FRP discusses step-by-step contingency procedures to follow from the time a spill is detected, and authorities notified until the spill is properly recovered. The Response Action Plan (Part 1) contains initial response actions and notification procedures to be performed immediately after the first detection of a spill. The Prevention Plan (Part 2) provides a description of oil discharge prevention measures and policies employed at the Facility. The supplemental information in Part 3 presents equipment, training, and environmental information pertinent to efficient oil spill containment and cleanup. Part 4 presents the best available technology (BAT) comparison. Part 5 calculates the Response Planning Standard (RPS) for this facility.

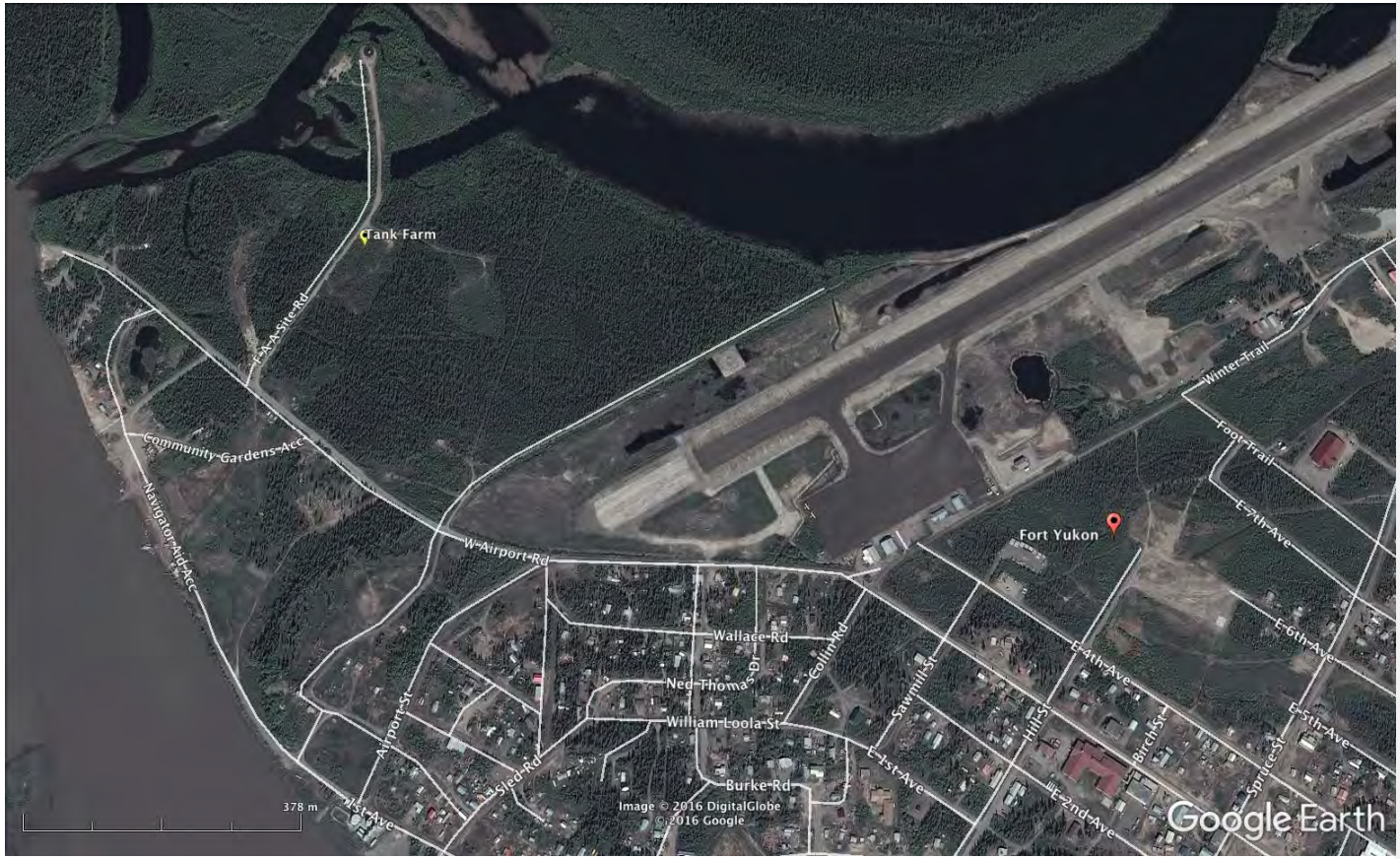
The ODPCP/FRP is designed to meet the requirements of the Alaska Department of Environmental Conservation (ADEC) regulations contained in 18 AAC 75, Article 4, US Coast Guard (USCG) 33 CFR 154, and of the Environmental Protection Agency (EPA) per 40 CFR 112.20.

The adjusted ADEC Response Planning Standard for the Facility is: ..... **77,988** gallons
(based on the largest tank volume of 288,043 gallons; see Section 2.6 in Part 2).

Federal Response Planning Volumes are (see Section 2.3 in Part 2):

USCG Average Most Probable Discharge:.....1.10 bbl.
USCG Maximum Most Probable Discharge: ..... 11.05 bbl.
USCG Worst-Case Discharge: ..... 110.5 bbl.
EPA Small Discharge.....50 bbl.
EPA Medium Discharge:.....779 bbl.
EPA Worst-Case Discharge: ..... 7,798 bbl.

Figure 1. Location Map-Fort Yukon Terminal



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PART 1 — RESPONSE ACTION PLAN

The Facility Manager acting as Initial On-Scene Incident Commander/Emergency Response Coordinator (OSIC/ERC) will coordinate all initial response actions of Facility personnel as listed and has the authority to mobilize all resources.

1.1. EMERGENCY ACTION CHECKLIST

All spills will be reported by the person(s) discovering the spill to the Facility Manager as soon as possible. If a transfer is in progress, the Person in Charge (PIC) of the transfer will be notified immediately and initiate emergency actions.

EMERGENCY RESPONSE ACTIONS:

1. Stop any cargo transfer operations.
2. Eliminate sources of ignition. Ensure personnel safety. (See ~~Figure 1-3~~Figure 1-3 and ~~Figure 1-4~~Figure 1-4 for fire extinguisher locations and emergency routes.)
3. Locate spill source and assess incident size and threat. If safe, don appropriate personal protective equipment and secure. Evacuate area, if necessary.
4. Initiate appropriate land or marine containment and recovery actions (see ~~Sections 1.5 Deployment Strategies~~Sections 1.5 Deployment Strategies, and ~~1.6 Response Strategies~~1.6 Response Strategies).

NOTE: to prevent fire or explosion, FLAMMABLE PRODUCTS WILL NOT BE BOOMED ON WATER (flammable products include GASOLINE and AV GAS).

5. Collect spill data identified on the ADEC Spill Report Form (Figure 1-2).

Notifications (to be made as soon as possible):

Incident Observer / PIC will notify:

- ❑ Other persons involved with transfer (Facility personnel, vessel master, truck driver, etc.)
- ❑ Local Facility Manager or designee
  - ❑ Facility Manager or designee will notify O'BRIEN'S Command Center office. (or a Crowley Fuels Qualified Individual if O'BRIEN'S cannot be reached)

NOTE: SEE SECTION 1.2 FOR SPECIFIC CONTACTS AND TELEPHONE NUMBERS.

O'BRIEN'S COMMAND CENTER OFFICE NOTIFICATIONS:

O'BRIEN'S Command Center will notify:

- ❑ Qualified Individual
- ❑ National Response Center: .....(800) 424-8802 –or– (202) 267-2675
- ❑ U.S. Coast Guard Sector Anchorage ..... (907) 428-4100 or (866) 396-1361
- ❑ State and Local Agencies
  - Alaska Department of Environmental Conservation:
    Toll Free (after hours).....(800) 478-9300
    Northern (Fairbanks).....(907) 451-2121
  - Environmental Protection Agency (for land-based spills)
    Anchorage .....(907) 271-5083
    Region X 24-hr, Seattle.....(206) 553-1263
- ❑ Response Action Contractor
  - Alaska Chadux ~~Corp~~ Network. .....(907) 348-2365

1.1.1. Emergency Incident Checklists

SAFETY (applicable to all emergencies)

- ❑ Suspend operations to ensure fire or other safety hazards do not exist.
- ❑ Account for all personnel and set up a safety perimeter to ensure their safety.
- ❑ Eliminate sources of ignition-switches, motors, electrical circuits, and open flames.
- ❑ Determine product type and tank(s) involved.
- ❑ Review Safety and Data Sheet (SDS) for explosion, breathing or other hazards. Use appropriate Personal Protective Equipment (PPE).
- ❑ Based on hazards, initiate spill/fire response or evacuation if necessary.

STORAGE TANK OVERFILL OR RUPTURE CHECKLIST

- ❑ Stop all transfers (to or from tank) [PIC].
- ❑ Ensure safety of personnel in area.
- ❑ Ensure all drain lines to the exterior of secondary containment are closed.
- ❑ Notify Facility Manager of spill.
- ❑ Cordon off area to prevent personnel or traffic from entering into and spreading oil.
- ❑ If possible, transfer tank contents to another tank to lower liquid level below leak.
- ❑ Use sorbents to contain small spill — otherwise secure area and obtain assistance from the Facility Initial Response Team (IRT).

MANIFOLD OR PIPING RUPTURE CHECKLIST

- ❑ Shut down pumping system and isolate pipeline by closing valves. [PIC]
- ❑ Ensure safety of personnel in area.
- ❑ Eliminate sources of ignition if spill is flammable.
- ❑ Cordon off area to prevent personnel or traffic from entering into and spreading oil.
- ❑ Notify Facility Manager of spill.
- ❑ Use sorbents, clean sweep, boom or earth berms to contain spread of spill.
- ❑ If not immediately contained, secure area and obtain assistance from the IRT.
- ❑ Do not resume normal operations until permanent repairs are made.

PIPING/HOSE CONNECTION LEAKS AND EQUIPMENT FAILURE
(*both under pressure and not under pressure*)

- ❑ Stop oil transfers and/or shut down the pumping system (where applicable). [PIC]
- ❑ Isolate the leaking piping, hose, connection, or equipment
- ❑ Ensure safety of personnel in area.
- ❑ Eliminate sources of ignition if spill is flammable.
- ❑ Ensure discharge containment area is holding all spilled oil.
- ❑ Retighten bolts, drain the hose and renew gasket, and replace faulty hose and/or equipment.
- ❑ Pump spilled oil into portable containers for disposal.
- ❑ Collect and wipe up residue with sorbents and clean sweep.
- ❑ If not immediately contained, secure area and obtain assistance from the IRT.
- ❑ Do not restart transfer until leak has been stopped, and cause identified/repaired.

FIRE AND EXPLOSION

- ❑ Sound general alarm and notify all personnel in the immediate area.
- ❑ Eliminate all ignition sources.
- ❑ Stop all fueling operations, close all valves and secure electrical breakers.
- ❑ Notify Facility Management and Fire Department.
- ❑ Evacuate area and account for everyone; do not attempt to re-enter without permission from authorized personnel (Fire Department and Facility Manager).
- ❑ If safe, two employees may attempt to put out small fires with a fire extinguisher.
- ❑ For electrical fires, use CO_2 or dry chemical extinguisher.
- ❑ The Facility Manager will coordinate response actions with the local Fire Department.

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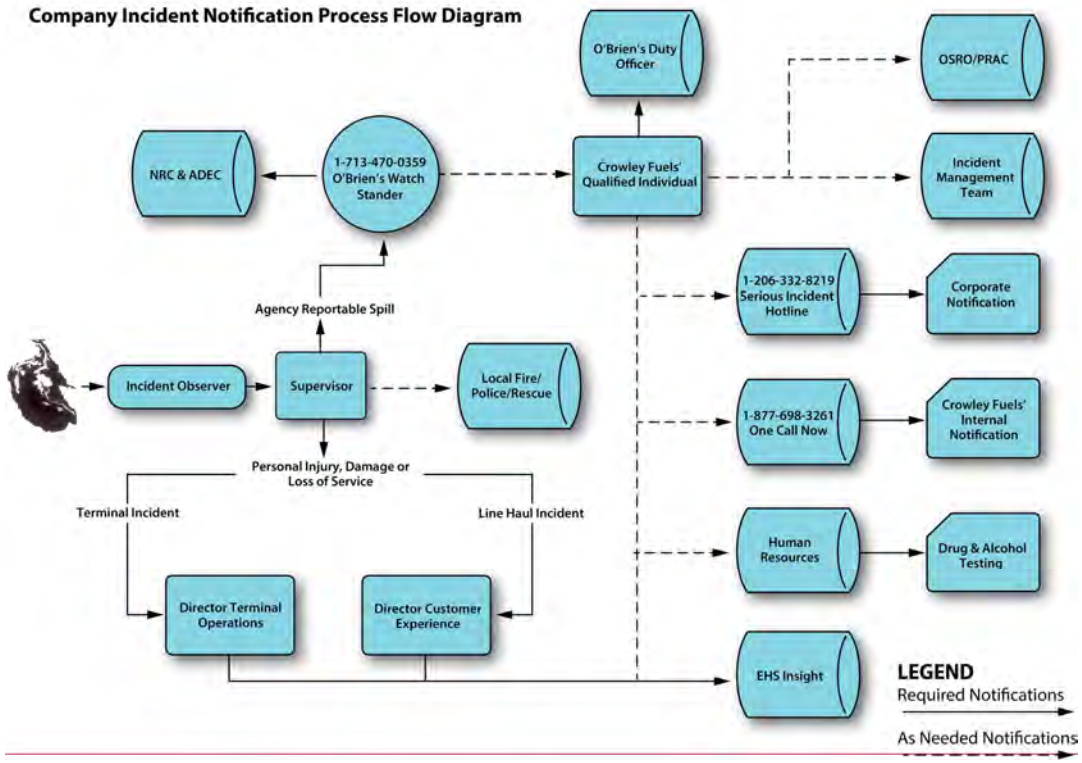
1.2. REPORTING AND NOTIFICATION

All spills will be reported as soon as possible to Facility Management. Initial spill response actions will normally begin before the reporting sequence is carried out (~~Figure 1-1~~Figure 1-1). As safety dictates, all spills of oil or hazardous substances to water or any spill greater than 55 gallons outside of secondary containment MUST BE IMMEDIATELY REPORTED to the proper Alaska State and Federal authorities as required by 18 AAC 75.300.

Figure 1-1 Oil Spill Management Response and Notification Diagram



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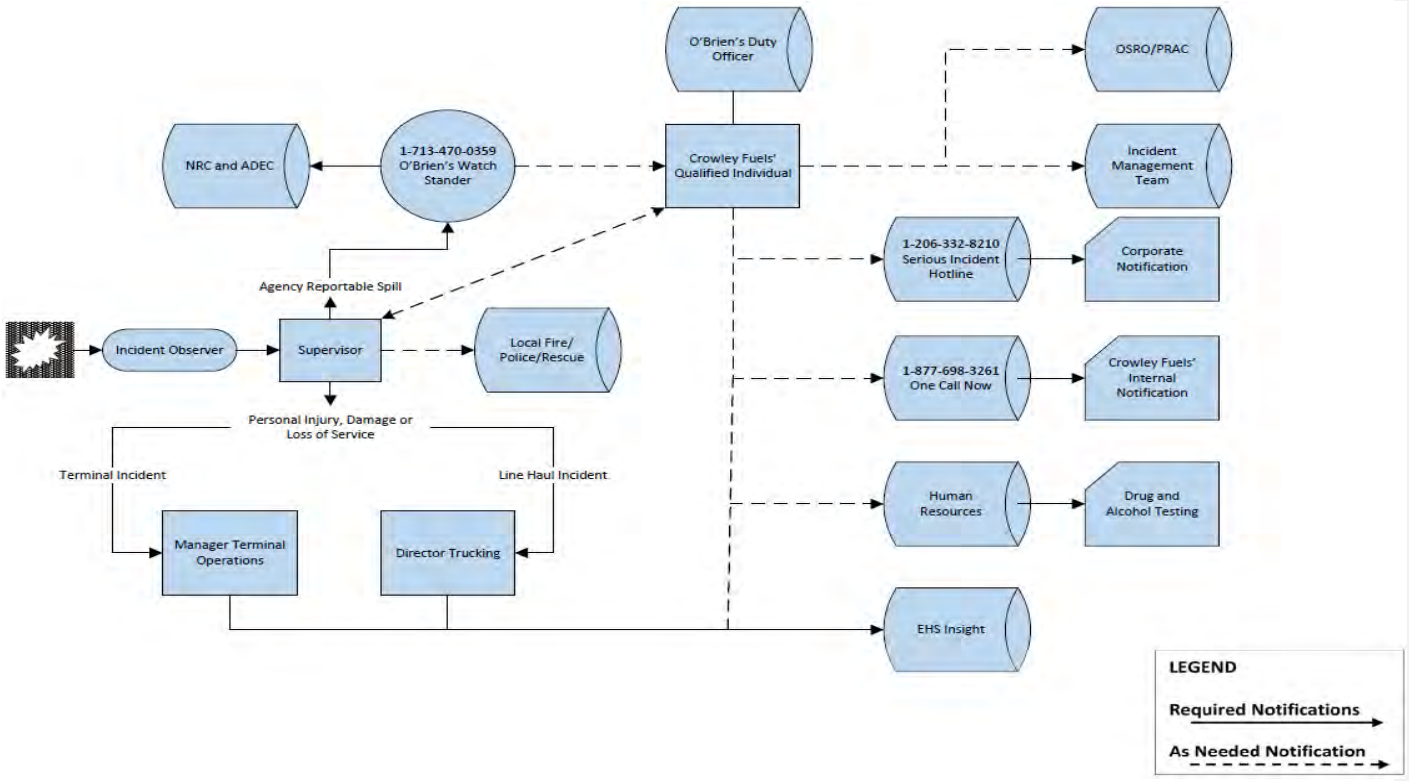
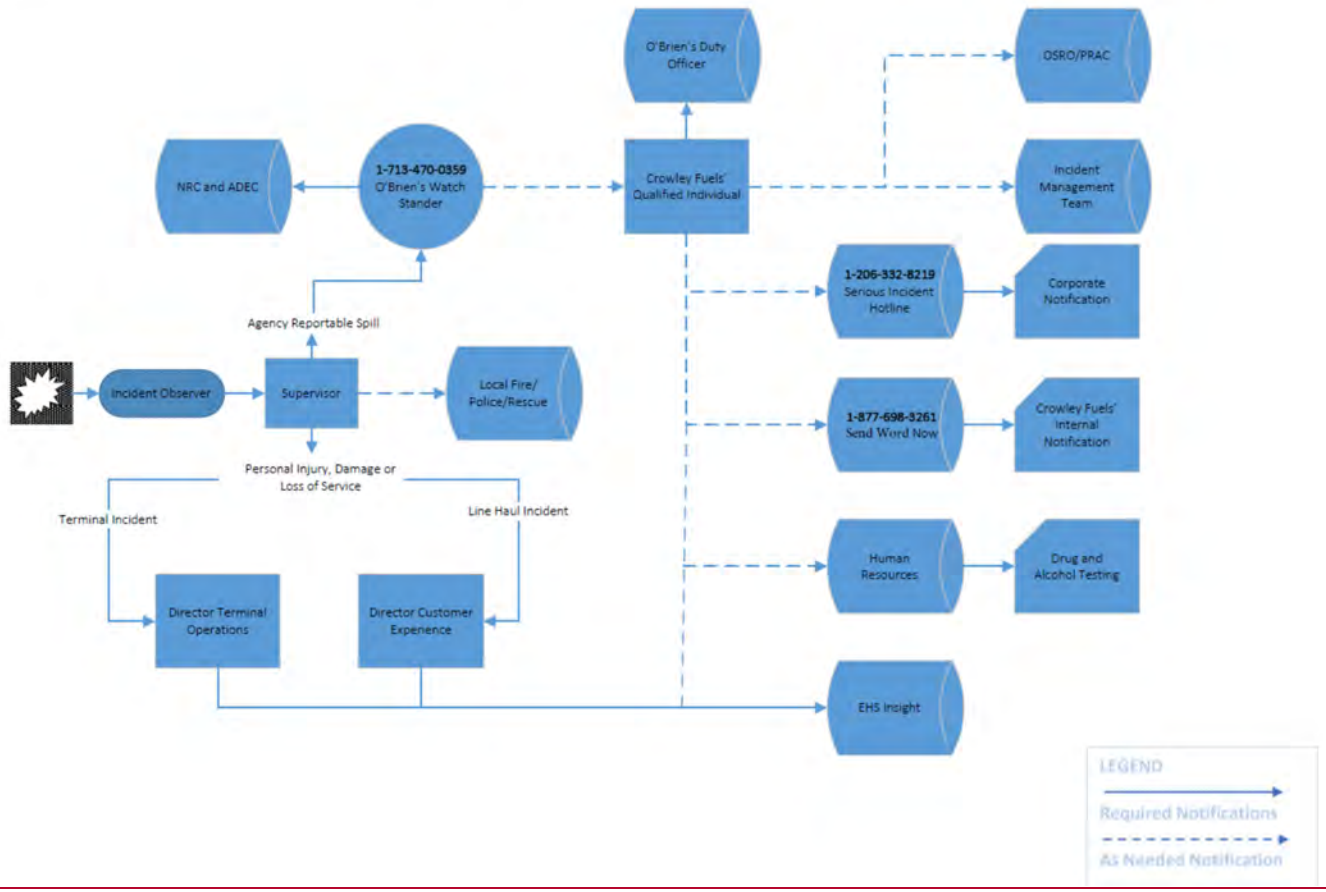

O'Brien's Duty Officer
OSRO/PRAC
NRC and ADEC
1-713-470-0359 O'Brien's Watch Stander
Crowley Fuels' Qualified Individual
Incident Management Team
1-206-332-8210 Serious Incident Hotline
Corporate Notification
Agency Reportable Spill
Incident Observer
Supervisor
Local Fire/ Police/Rescue
1-877-698-3261 One Call Now
Crowley Fuels' Internal Notification
Personal Injury, Damage or Loss of Service
Terminal Incident
Line Haul Incident
Human Resources
Drug and Alcohol Testing
Manager Terminal Operations
Director Trucking
EHS Insight
LEGEND
Required Notifications
As Needed Notification

Company Incident Notification Process Flow Diagram



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1.2.1 Emergency Notification Phone Checklist (prioritized)

The list of names and phone numbers below consists of Crowley Fuels personnel, Federal and State agencies to be contacted in the event of a spill. Cleanup response contractors are also listed in the event that their services are required.

☞ Indicates notifications that must be made for reportable spills.

Crowley Fuels PERSONNEL

☞ Local Area Operations Supervisor, Ft. Yukon ..... office (907) 662-2672
Chris (Donald) Engler, Plant Operator ..... Cell (907) 662-5040

Ft. Yukon Facility Initial Response Team (IRT) Members..... (907) 662-2672/2408
Jared Peter, Fuel Driver.....Cell 907-662-5150
(Note: After hours, the Facility Manager will notify IRT members by phone.)

☞ O'BRIEN'S Command Center/AQI.....(713) 470-0359
or .....(985) 781-0804

O'BRIEN'S Command Center Dispatch will notify:

☞ Primary Qualified Individual (QI), or alternate (~~Figure 1-1~~Figure 1-1)

STATE OF ALASKA

☞ Dept. of Environmental Conservation (ADEC)
ADEC's 24-HOUR EMERGENCY TOLL FREE NUMBER .....(800) 478-9300
Fairbanks Office.....(907) 451-2121
Fax (Fairbanks) .....(907) 451-2362
Email (Spill Report Submission to Fairbanks) .....decsparnregion@alaska.gov

Alaska Department of Natural Resources
~~Patty Burns~~Fairbanks Office..... (907) 451-~~3014~~2739
Email: ~~patty.burns@alaska.gov or~~ dnr.nro.spill@alaska.gov

State Emergency Response Coordinator (SERC).....(907) 428-7000
Kim Weibl (Coordinator) .....(800) 478-2337
Fax.....(907) 428-7020

FEDERAL GOVERNMENT

☞ National Response Center (USCG & EPA).....(800) 424-8802

☞ U.S. Coast Guard
Sector Anchorage.....(907) 428-4100 or 1-866-396-1361
Environmental Protection Agency (required for land-based spills)
Anchorage Office .....(907) 271-5083
EPA Region X (24 Hour) .....(206) 553-1263

RESPONSE ACTION CONTRACTORS (standby notification)
Alaska Chadux ~~Corporation~~ Network (Chadux).....(907) 348-2365

Crowley Fuels QI will notify:

☞ INCIDENT MANAGEMENT TEAM
Crowley Fuels PERSONNEL — ANCHORAGE
Crowley Fuels LLC, Anchorage office .....(907) 777-5500
~~*Scott Mulvihill*~~*Raul McFaddin* (Manager, Terminal Operations): cell~~(907) 434-1901~~(434) 471-6989

Note: Crowley Fuels office maintains after-hours contact numbers.

PRIMARY RESPONSE ACTION CONTRACTOR (if needed)
Alaska Chadux ~~Corporation~~ Network (Chadux) 24-hour (907) 348-2365

EMERGENCY CONTACTS

Fire, Police Emergency 911
Fire Dept. ..... (907) 662-2311
Police Dept. ..... (907) 662-2311
State Troopers ..... (907) 438-2019 or (800) 240-2019
State Fire Marshall ..... (907) 269-5604
City of Ft. Yukon (also public water) ..... (907) 662-2952
Ft. Yukon Health Clinic ..... (907) 662-2460
Fort Yukon EMS & Rescue Squad ..... (907) 662-2460
Yukon Flats School District (http://www.yukonflats.net) ..... (907) 662-2515
National Weather Service ..... (907) 457-1921
Internet http://forecast.weather.gov/MapClick.php?zoneid=AKZ220
Alaska Division of Emergency Services ..... (907) 428-7000
~~US Dept. of Interior, Natural Resource Damage Assessment (NRDA) ..... (907) 271-5011~~
Military (TECOM) ..... (907) 753-3549
Local Emergency Planning Committee (LEPC) ..... None
Local Radio: KZPA 900 AM ..... (907) 662-8255 (PH/FAX)
Cable Provider: City ..... (907) 662-2479 or 662-2379
Canyon Village Traditional Council ..... (907) 662-2502
Council of Athabascan Tribal Government ..... (907) 662-2587
Gwitchyaa Zhee Corporation ..... (907) 662-2933
Gwitchyaa Zhee Utility Company ..... (907) 662-2322/2359
Native Village of Fort Yukon ..... (907) 662-2581

WILDLIFE SERVICES

International Bird Rescue ~~(IBR; may activate through Chadux)~~
Anchorage ..... (907) 562-1326
Alaska SeaLife Center (ASLC)
Seward, AK ..... (907) 224-6395
U.S. Fish and Wildlife Services ..... (907) 786-3483
**IBR and ASLC is contracted and activated through the Alaska Chadux Network*

WILDLIFE HAZING, COLLECTION, PERMITS

~~Applications and information regarding the following permits are included in Appendix 16 of the Alaska Regional Response Team (ARRT) Wildlife Response (Annex G of the AK Unified Plan).~~Applications and information regarding the following permits for wildlife response activities are provided in the ARRT Wildlife Protection Guidelines.

Alaska Dept. of Fish and Game
~~Division of Habitat, Fairbanks~~Section - Anchorage
~~Todd Nichols / Jack Winters~~Jeanette Alas
~~(907) 459-7289~~(907) 267-2342 (office)
(907) 267-2805 (office)
~~(907) 459-7303~~(907) 267-2499 (fax)
1300 College Rd., Fairbanks, AK 99709
~~Jack.Winters@alaska.gov~~ Jeanette.alas@alaska.gov
~~Todd.nichols@alaska.gov~~

Alaska Dept. of Natural Resources
~~Patty Burns~~Fairbanks Office
(907) 451-~~3014~~ 2739 (office)
dnr.nro.spill@alaska.gov

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U.S. Fish and Wildlife Service~~, AK Region~~
~~Spill Response Coordinator~~
fwsakspillresponse@fws.gov
(~~907) 786-3483~~(907) 242-6893 ~~(office)~~(24-hr. cell)
~~(~~907) 786-3350 (fax)

National Marine Fisheries Service
Sadie Wright

(907) 586-7630 (office)

OTHER PERMITS

Field Archaeology Survey Permits
ADNR — Office of History and Archaeology
State Historic Preservation Officer (SHPO)
(907) 269-8721 e-mail: oha.permits@alaska.gov

ADNR Division of Mining, Lands, and Water-Statewide Abatement of Impaired Land (SAIL) Section

Fairbanks

(907) 451-2739 email: dnr.nro.spill@alaska.gov

Temporary Water Use / Land and Tideland Use Permits
ADNR — Division of Mining, Land &Water
(907) 451-2790 (water permit) (907) 451-2740 (land permit)

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1.2.1. Notification Sequence

All spills will be reported as soon as possible to the Facility Manager or alternate. Initial spill response actions will normally begin before the reporting sequence is carried out. The Facility Manager, when appropriate, will record the pertinent data on the Spill Reporting Forms (~~NRC Figure 1-2~~ADEC Figure 1-2; ~~ADEC Figure 1-3~~Spill Report form Figure 1-3).

Notification should not be delayed pending collection of all the required information.

The Facility Manager will report all spills, as soon as possible, to O'BRIEN'S Command Center (O'BRIEN'S), or if O'BRIEN'S cannot be reached, a Qualified individual (~~Figure 1-1~~Figure 1-1). O'BRIEN'S will contact the Crowley Fuels QI, the appropriate Federal and State agencies, local officials and other parties with an interest in the incident. The QI will make the appropriate internal contacts (~~Figure 1-1~~Figure 1-1). The QI will initiate notification of Contractors and Incident Management Team call out as dictated by the circumstances of the spill. The Crowley Fuels QI will follow up to assure that appropriate regulatory agencies have been notified by making redundant notification calls, if required. All notifications will be logged and verified by the QI.

O'BRIEN'S is responsible for reporting the spill to the Crowley Fuels QI, and State and Federal authorities. If the Facility Manager cannot contact O'BRIEN'S or a Qualified Individual, the Facility Manager will make the agency notifications. The use of the O'BRIEN'S offices does not replace the QI and responsibilities assigned herein; rather the use of the O'BRIEN'S Command Center office limits the amount of phone calls (i.e., pager, cell, home phone, etc.) that the Facility Manager has to make to notify the QI thereby allowing Facility personnel to focus attention to the response. Upon receiving notification from the O'BRIEN'S Command Center, the QI (or alternate) may contact the Facility Manager directly and continue with additional notifications and activation of the appropriate incident response.

In the event support personnel and equipment are required, the Crowley Fuels Operations Manager, QI, or Facility Manager may activate a Response Action Contractor who will provide such services. The QI or alternate will make sure that special groups or parties that may be affected by a spill, such as local native corporations, fishing vessels, seafood processors and plants, guides or tourism organizations, and land or resource owners are notified.

Figure 1-2 NRC Spill Report Form

Fax to NRC: (202) 267-1322
Follow up with Voice confirmation of fax receipt within 15 minutes: 1-800-424-8802 or 1-202-267-2675
Do not delay reporting pending collection of all information

• Report only what you know. Do not guess or speculate. • Report a spill via telephone; identify yourself and your title, saying that you are calling to report an oil spill.		
Person Reporting Spill	Title	Phone (Day/Night)
Responsible Party (*state Crowley or name of other company/person only if certain otherwise state unknown*) Name / address / phone:		
Source/Cause of Incident: Is spill continuing? Yes / No		
Date / Time Spill Reported:	Date / Time Spill Occurred:	Date/ Time Knowledge of Spill:
Location of Incident (address, LAT/LONG, mile post):		Nearest City: Distance from City:
Storage Tank Container Type: Above ground (Yes / No) Below ground (Yes / No) Unknown		Tank Capacity:
Product Type: CHRIS code: Facility Capacity:	Quantity Spilled (gals/bbls): On Land: Water: Dock/Deck:	Area of Spill (spread over): On water: On Land:
Weather at Site – General Description (rain, snow, cloudy, frozen):		
Wind Speed:	Air Temperature:	Sea Condition:
Wind Direction:	Visibility:	Tides/Currents:
Actions Taken to Correct, Control, Mitigate:		
Habitats/Wildlife/Water Intakes/Commercial or Subsistence Fishing/Public Use Areas, etc. Impacted / Threatened:		
Damages: Y / N; Medium affected: approximate cost estimate $_____		
Injuries: Y / N; how many _____ **Deaths:** Y / N; how many _____ **Evacuation:** Y / N; how many _____		
Other Information About the Incident:		
Disposal: How: How Much: When: Oily water: Soil and debris: Sorbents, etc.:		
ADEC Spill No.** USCG Spill No.** Name: Name:		
Company's Purchase Order Number for Spill:		

Figure 1-~~23~~ ADEC Spill Report Form

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ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:	ADEC FILE #:	ADEC LC:

PERSON REPORTING:	PHONE NUMBER:	REPORTED HOW? (ADEC USE ONLY) ☐ Phone ☐ Fax ☐ PERS ☐ E-mail
DATE/TIME OF SPILL:	DATE/TIME DISCOVERED:	DATE/TIME REPORTED TO ADEC:
INCIDENT LOCATION/ADDRESS:	DATUM: ☐ NAD27 ☐ NAD83 ☐ WGS84 ☐ Other _____ LAT. LONG.	PRODUCT SPILLED:
QUANTITY SPILLED: ☐ gallons ☐ pounds	QUANTITY CONTAINED: ☐ gallons ☐ pounds	QUANTITY RECOVERED: ☐ gallons ☐ pounds
QUANTITY DISPOSED: ☐ gallons ☐ pounds		

	POTENTIAL RESPONSIBLE PARTY:	OTHER PRP, IF ANY:	VESSEL NAME:
Name/Business:			
Mailing Address:			VESSEL NUMBER:
Contact Name:			> 400 GROSS TON VESSEL: ☐ Yes ☐ No
Contact Number:			

SOURCE OF SPILL:	CAUSE CLASSIFICATION: ☐ Accident ☐ Human Factors ☐ Structural/Mechanical ☐ Other
CAUSE OF SPILL: ☐ Under Investigation	
CLEANUP ACTIONS:	
DISPOSAL METHODS AND LOCATION:	

AFFECTED AREA SIZE:	SURFACE TYPE: *(gravel, asphalt, name of river etc.)*	RESOURCES AFFECTED/THREATENED: *(Water sources, wildlife, wells, etc.)*
COMMENTS:		

ADEC USE ONLY

SPILL NAME:	NAME OF DEC STAFF RESPONDING:	C-PLAN MGR NOTIFIED? ☐ Yes ☐ No

DEC RESPONSE:	CASELOAD CODE:	CLEANUP CLOSURE ACTION:
☐ Phone follow-up ☐ Field visit ☐ Took Report	☐ First and Final ☐ Open/No LC ☐ LC Assigned	☐ NFA ☐ Monitoring ☐ Transferred to CS or STP

COMMENTS:	Status of Case: ☐ Open ☐ Closed DATE CASE CLOSED:
REPORT PREPARED BY:	DATE:

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:	ADEC FILE #:	ADEC LC:

PERSON REPORTING:	PHONE NUMBER:	REPORTED HOW? (ADEC USE ONLY) ☐ Phone ☐ Fax ☐ PERS ☐ E-mail
DATE/TIME OF SPILL:	DATE/TIME DISCOVERED:	DATE/TIME REPORTED TO ADEC:
INCIDENT LOCATION/ ADDRESS:	DATUM: ☐ NAD27 ☐ NAD83 ☐ WGS84 ☐ Other _____ LAT. LONG.	PRODUCT SPILLED:
QUANTITY SPILLED: ☐ gallons ☐ pounds	QUANTITY CONTAINED: ☐ gallons ☐ pounds	QUANTITY RECOVERED: ☐ gallons ☐ pounds
QUANTITY DISPOSED: ☐ gallons ☐ pounds		

	POTENTIAL RESPONSIBLE PARTY:	OTHER PRP, IF ANY:	VESSEL NAME:
Name/Business:			
Mailing Address:			VESSEL NUMBER:
Contact Name:			> 400 GROSS TON VESSEL: ☐ Yes ☐ No
Contact Number:			

SOURCE OF SPILL:	CAUSE CLASSIFICATION: ☐ Accident ☐ Human Factors ☐ Structural/Mechanical ☐ Other
CAUSE OF SPILL: ☐ Under Investigation	
CLEANUP ACTIONS:	
DISPOSAL METHODS AND LOCATION:	

AFFECTED AREA SIZE:	SURFACE TYPE: *(gravel, asphalt, name of river etc.)*	RESOURCES AFFECTED/ THREATENED: *(Water sources, wildlife, wells, etc.)*
COMMENTS:		

ADEC USE ONLY

SPILL NAME:	NAME OF DEC STAFF RESPONDING:	C-PLAN MGR NOTIFIED? ☐ Yes ☐ No
DEC RESPONSE: ☐ Phone follow-up ☐ Field visit ☐ Took Report	CASELOAD CODE: ☐ First and Final ☐ Open/No LC ☐ LC Assigned	CLEANUP CLOSURE ACTION: ☐ NFA ☐ Monitoring ☐ Transferred to CS or STP
COMMENTS:	**Status of Case: ☐ Open ☐ Closed**	**DATE CASE CLOSED:**
REPORT PREPARED BY:		DATE:

Revised 6/16/2014

For any reported spill, the Facility Manager will submit a written final report within 15 days of cleanup to the Regional Office of ADEC.

Figure 1-3 O'Brien's Facility Incident Report Form

Facility Incident Report

☐ Drill ☒ Actual Incident | Incident Name -17 | NRC Number

Responsible Party	**Reporting Party**	**Suspected Responsible Party**
	Name:	Company:
	Position:	Name:
	Phone: Fax:	Phone: Fax:
	Company:	Notified: Not Notified Notified
	Email:	Email:
	Address:	Address:
	City: State:	City: State:
	Zip: Country:	Zip: Country:
Time and Location	Incident date: Time Zone:	
	Incident Reported to QI/C: Time Zone:	
	Area Name: Block: Area Abv#:	
	Facility Type: Airfield,Small Facility: OCSG#	
	Latitude: Longitude:	
	Nearest City: Miles To City: Miles to shore:	
	Incident Type:	
	Incident Description:	
Materials Discharged	Amt Discharged: Quantity: Material Discharged: API Gravity:	
	Body of Water Affected:	
	Ground Water Affected: No Yes Water Intake Affected: No Yes	
	Spill Size: Length: Width:	
	Slick Size: Estimated percentage of area covered by slick:	
	Spill Source: Source secured date and time; or Date: Time:	
	Source continuous-estimated rate Rate:	
	Color of slick: Appearance percentage:	barely visible / brightly colored / silvery / dull / slight color / dark
Weather	Air Temp:	Water Temp:
	Ceiling:	Visibility:
	Wind Dir: °Heading	Wind Velocity: kph
	Seas:	High Tide Time: 00:00
	Current Dir:	Current Speed:
Response Action	Actions taken to correct/ mitigate incident	
Additional Information	Injuries: Fatalities:	
	Evacuated: No Yes	

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Facility Incident Report

Damage: ☒ No ☐ Yes

Do not delay reporting additional information. Call NRC at (800)424-8802 or (202)267-2675

For spills Involving a Load Out or Vessel Collision. Obtain Information from the Boat Captain.

Captain's Name:	Vessel Name:	
Captain's Address:	Vessel Owner:	
Captain's Phone:	Fax:	Card Number:
Call Sign:	Agent:	Flag:
Remarks:		

Company Notifications

Reported By	Reported to (name)	Reported to (Position)	Update 201-2	Time	Date

Agencies Notifications

Reported By	Reported to (name)	Agency/Organization	Assigned#	Time	Date

CommandPro® 10/13/2017 13:49 Page 2 of 2 WITT O'BRIEN'S

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1.3. SAFETY

Safety is the most important consideration when manpower must be committed to a spill. All discharges of petroleum are dangerous to a certain extent. The intensity of the danger increases with the degree of refinement of the product. A gasoline spill is more dangerous than a diesel oil spill.

In the event of a spill response operation, the Facility Manager acting as the designated Safety Officer for the site, with the assistance of the Crowley Fuels Health/Safety Officer (IMT, see Section 3.3 in Part 3) as needed, will develop an incident-specific Safety Plan in accordance with OSHA standards set forth in 29 CFR Parts 1904 and 1910, and applicable Alaska State regulations concerning occupational health and safety, construction, petroleum and hazardous waste response, and hazard communications. A Safety and Health Emergency Response Plan is included. In accordance with record-keeping and reporting requirements, a record will be maintained of all accidents that occur during a spill response or drill.

A zone of safety will be established around the spill, and only persons authorized for cleanup work will be allowed in this zone. The extent of this safety zone will be determined by the Facility Manager or person-in-charge and will be based on the type and amount of product spilled, the location of the spill, and other variables. A trained, competent response team member will use a lower explosive limit (LEL) meter (Leakator 10®), which is a simple gas detection device, (lower flammable limits or lower explosive limits) to determine safe working zones. The purpose of a safety zone is to minimize danger to personnel and equipment; thus the perimeter of this zone will be well beyond vapor, fire, or explosion danger. This area will be referred to as the "spill zone".

1.3.1. Site Characterization

Characterization of the spilled material will be conducted whenever a large spill occurs or when it is deemed necessary according to the expected hazards of the material. The designated Safety Officer will determine the need for sampling and the use of personal protective equipment (PPE) in accordance with established safety protocols and exposure protection action levels. In most cases, Safety Data Sheets (SDS) will be used to determine the nature and potential hazards of the spilled material. SDSs for materials handled at the Facility are kept on site and are available in a binder in the Facility office.

Preliminary analytical testing of the spilled material may be carried out if deemed necessary by the Safety Officer and the On-Scene Incident Commander (OSIC). This testing may be performed in the field and will commence as soon as possible. Finally, it may be necessary to characterize the spilled material(s) beyond the preliminary testing. If further testing is necessary, samples will be collected for formal analysis and will be sent to an EPA-certified laboratory. Potential analytes of interest will be selected based on available information included in inventory logs and SDSs. Chemical analyses will be performed for the compounds designated according to the EPA-approved methods (40 CFR Part 136).

TESTING FOR SAFETY HAZARDS

Fire and explosion hazard — Spilled oil may present a fire or explosion hazard. In initial evaluation of any oil spill, the following rules of thumb should always be considered:

- Until otherwise established, all spills should be considered as potential fire hazards. This is particularly true in the case of large continuous spills and of refined product spills.
- Any spill involving confined airspace in which vapors may accumulate, particularly those involving refined products, should initially be considered as potentially explosive situations.

Any petroleum spill should be approached from upwind if possible. When entering any structure or confined location (such as under docks, under bridges) where spillage may exist, hydrocarbon vapor concentration is a potential danger. Vapor concentrations (lower flammable limits or lower explosive limits) should be measured with an explosive vapor meter. If meter readings indicate vapor concentrations greater than the lower flammable limit, personnel should be evacuated from the

immediate area, spark sources controlled, and the area cordoned off. No activity can be conducted in the spill zone until the vapor concentration levels are safe. The Facility Manager will coordinate with the local Fire Department in case of a fire emergency.

Vapor toxicity/carcinogenic hazard — In addition to fire hazards, organic vapors may pose a toxicity or carcinogenic hazard, or result in a low oxygen environment. Air monitoring for organic vapors will be conducted if deemed necessary according to the expected hazards of the material. If indicated by measured vapor concentrations or the presence of benzene, respirators should be worn at the spill location until subsequent air monitoring indicates otherwise.

1.3.2. Decontamination

Adjacent to, or near the spill zone, a decontamination station will be established prior to anyone entering the spill/hot zone. The decon station will be laid out so that personnel will pass through the station prior to leaving the contaminated area. The decon station will be bermed and lined with plastic sheeting. Wash solutions will be placed nearest to the "spill zone". All solutions in tubs will be clearly marked. Decontamination procedures for personnel exiting the spill zone are as follows:

- Boot wash/rinse using either industrial or citrus degreaser. A brush will be used to thoroughly remove oil from exposed surfaces.
- While in the boot washtub, use the brush to wipe down contaminated suit surfaces. Note that the degree of suit cleaning will be based on whether suits are intended for re-use.
- If discarding, primary emphasis for cleaning should be to remove oily material around the ankles, wrists, and the front zipper area. This will help to prevent contamination of inner clothes during the removal.
- If keeping, all contaminated surfaces will be wetted with cleaning solution.
- Proceed to boot rinse (a water detergent solution). Thoroughly wipe down wetted surfaces.
- Wipe down outer surfaces with absorbent pads to remove remaining surface contamination.
- Remove tape (if worn) from ankles and wrists. Discard tape in waste container.
- When discarding suit, remove jacket over gloves and pants over boots. Discard suit with contaminated materials.
- Use hand cleaner and paper towels to immediately remove any oil from the skin.
- All pads, used gloves, used suits, etc., generated in the decontamination area will be discarded with oily waste.
- Each waste decontamination solution will be stored in one drum at the decontamination station. These stored drums will be pumped off periodically by a vacuum truck (when accessible from roadways) or removed to a location where they can be stored or pumped off.
- Equipment contaminated with oil (boom, boats, etc.) will be placed on plastic outside the exclusion zone and will be cleaned in place at this location. Care should be made to prevent any runoff contamination.
- Hand tools and other small tools may be carried to the decontamination station where gross oil will be wiped off with solvent soaked wipes/pads.

1.3.3. Emergency Equipment

For a large spill, fire-fighting equipment will be staged near the spill zone as a precaution. The Facility has dry chemical fire extinguishers at various locations as shown on Figure 1-4 and 1-5. The emergency pump shut-off points and main electrical shut off are shown on ~~Figure 1-9~~ Figure 1-9 in ~~Section 1.8 Facility Description~~Section 1.8 Facility Description.

The Facility Manager will check on the availability of an ambulance. The ambulance crew should be made aware that additional equipment for treating chemical burns, fire burns and noxious vapor inhalation is desirable (provide SDS with any victim requiring treatment). Often, emergency equipment

that serves an airport will be better equipped for this type of response than an ambulance serving a municipality.

All workers in the spill zone must wear protective clothing. Chemical burns are caused by repeated or continuous contact of the skin with the slightly acidic, toxic, dehydrated petroleum product. Protective gear should include safety helmets, rain gear (or other impermeable clothing), rubber boots and impermeable work gloves. Protective clothing is maintained as normal inventory at the operations office. The types and amounts of protective clothing vary.

Before even well-equipped workers can enter the spill zone, the Facility Manager or other trained, competent response team member will sample the air using lower explosive limit (LEL) meter (Leakator 10®). An explosion meter detects the presence of petroleum vapors and indicates concentration levels that are either a fire hazard or a danger to respiration. No activity can be conducted in the spill zone until the vapor concentration levels are safe.

If offshore work is necessary, all personnel will wear a Type III/V personal flotation device.

1.3.4. Evacuation and Control

In the event of an emergency, employees shall, without exposing themselves to serious hazards, evacuate as soon as practical via the emergency route assignments, posted in their immediate work area, to the predetermined assembly area(s).

Employees shall normally leave their work areas through the primary route assignment unless the route is blocked by the emergency and not safely possible. An alternative route remote from the emergency incident shall be designated by Facility Manager and shall be used for emergency egress. Emergency notifications will be made (see ~~Sections 1.1 Emergency Action Checklist~~Sections 1.1 Emergency Action Checklist, and ~~Section 1.2 Reporting and Notification~~Section 1.2 Reporting and Notification).

The Facility Manager shall supervise an orderly evacuation, check all enclosed spaces and provide appropriate reports. They shall also ensure that all fire doors are closed on their way out, and report to their designated meeting location.

Once an evacuation is begun, it will be carried to completion even if it is known to be a false alarm. Re-entry will not be permitted until the Facility Manager provides the "all-clear" signal.

EMERGENCY ESCAPE PROCEDURES AND EMERGENCY ROUTE ASSIGNMENTS

Figures 1-5 and 1-6 illustrate emergency evacuation (escape) routes, and the designated meeting location (primary muster area).

When the Fire Department, Facility Manager or alternate has given the order for evacuation, the following steps should be taken:

- You will be informed to follow the Facility evacuation plan.
- Facility Manager will inform you as to where and when to evacuate.
- Facility Manager will remain behind to make sure all personnel have left the area, and then would proceed to evacuate the site as well.
- IMPORTANT — Identify and give priority to the movement or evacuation of nervous, emotional, ill and/or handicapped personnel.
- Assign your deputies:
  - in two person teams to assist the injured or handicapped personnel.
  - to take emergency flashlights, or other portable lights in case of an electrical power failure.
  - to take the company first aid kit if it is readily available, and not too heavy to carry.
  - to unplug appropriate electrical equipment, appliances, machines, etc., if time permits.

  - to check for employee and visitor stragglers, turn OFF lights, and close office doors, but do not lock if office is involved in the fire.

- Establish and announce a rendezvous point or employee meeting place, for communication of emergency and/or re-entry information by the Facility Manager.
- Be quiet during the personnel movement or evacuation so you will be able to hear and understand all emergency instructions.
- Assure your visitors that they have nothing to fear because plans have been established and personnel have been trained to handle this specific type of emergency.
- Assemble and account for all personnel prior to leaving your area.
- When evacuation is complete, assemble and account for all your personnel and obtain the following information:
  - Total number of employees moved or evacuated.
  - Total number of visitors moved or evacuated.
  - Total number of personnel missing.
  - Names of missing persons.
- IMPORTANT — If you determine that you or your visitors are in imminent danger, exercise your independent judgment and move or evacuate your personnel without being given specific routes to follow.
- Once out of the endangered area, do not attempt to re-enter without permission from authorized personnel (Fire Department and Facility Manager). Upon the "all-clear" signal, you may return to your designated workstations unless you are given different instructions from your local supervisor or manager.

The primary emergency escape route and the designated meeting (muster) location shall be posted and reviewed with each employee by the Facility Manager as part of the emergency planning process.

- The primary muster area from the tank farm is on the side of the road NW of the Tank Farm (Figure 1-4), and from the gas station or shop is the office, or alternately at the church or parish hall (Figure 1-5).

The Facility Manager shall provide for specialized evacuation of any handicapped employees.

For Area-wide Evacuation (Figure 1-6), notifications and warnings would be given for any potential problem that could cause injury and or property damage with as much advanced time as allowed prior to an incident for evacuation using company telephones phones, hand held radios, in person, police and or other public officials in accordance with operational procedures.

Figure 1-4 Facility Office Fire Extinguisher Locations, Evacuation Routes, and Communications / Information Points

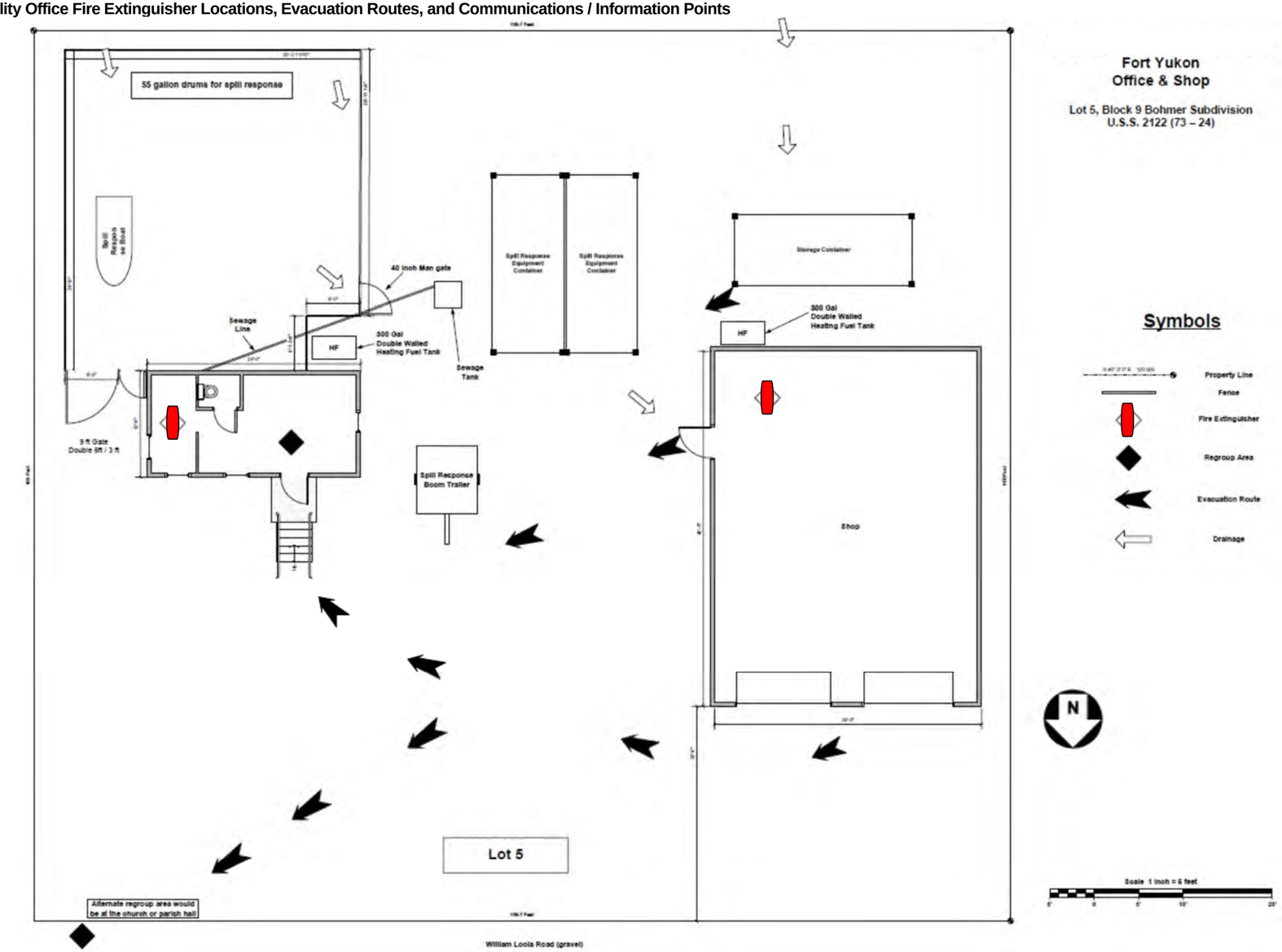


Figure 1-5 Tank Farm Fire Extinguisher Locations and Evacuation Routes

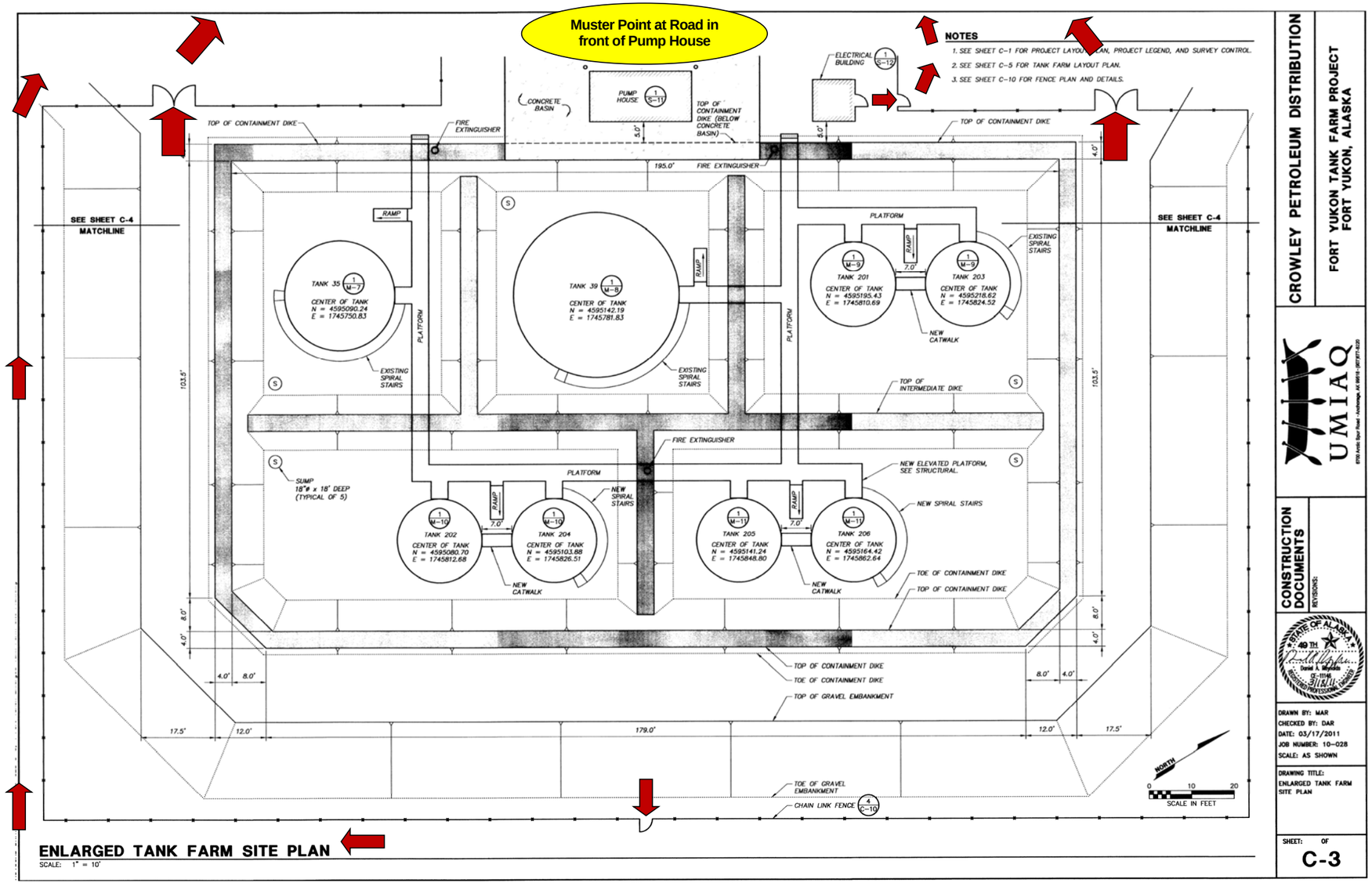
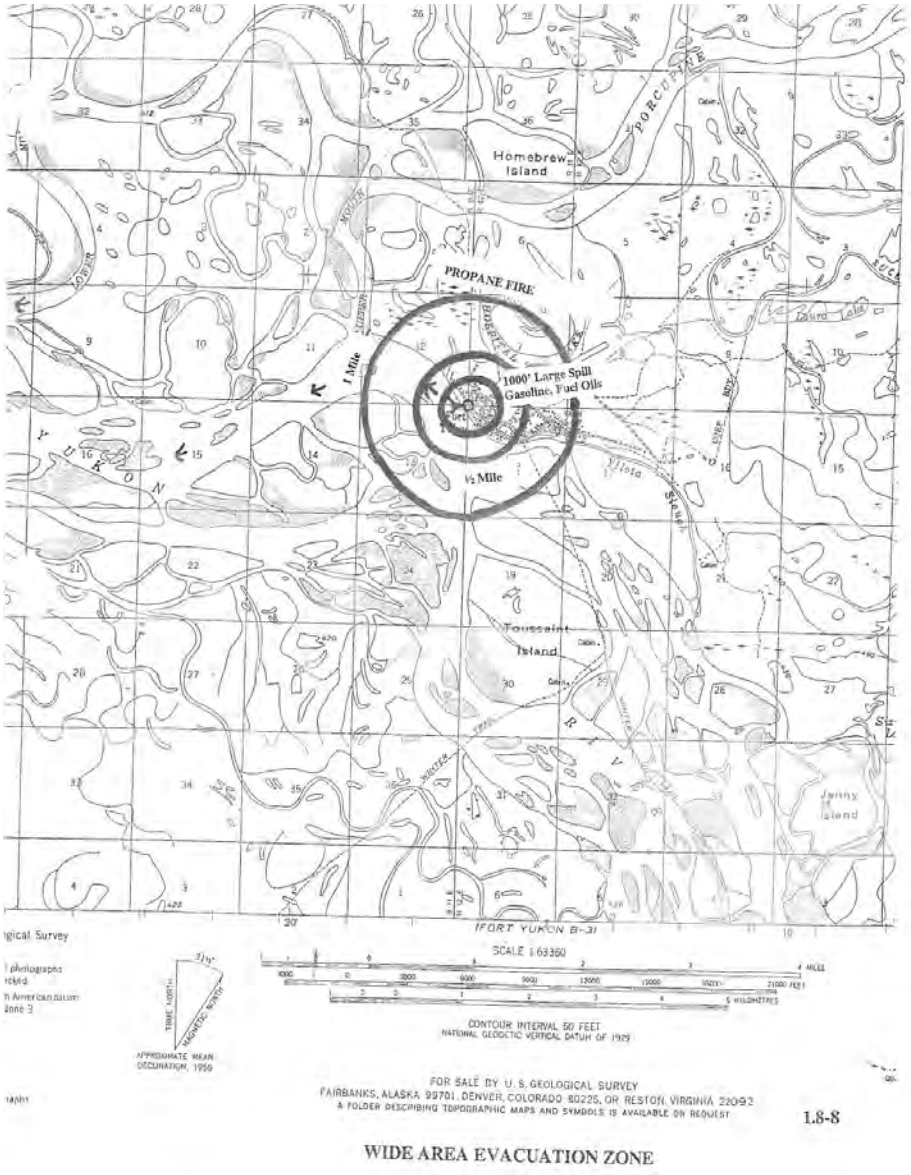


Figure 1-6 Wide Area Evacuation per ERG



WIDE AREA EVACUATION ZONE

CRITICAL FACILITY AND PROCESS OPERATIONS

If there are any critical Facility or process operations that need to be shut down or inactivated before total evacuation is completed, then the Facility Manager will designate such processes and the employees to accomplish the shutdown in advance.

PLEASE NOTE: Only those employees who are properly trained to HAZMAT technician or specialist level may re-enter any area where the release is above the PEL (permissible exposure level), or unknown in concentration.

Emergency shutdown procedures are conspicuously posted on each machine and/or piece of equipment or process where appropriate.

If a critical operation or process cannot be shut down or requires a substantial time delay, then the Facility Manager must be notified as soon as possible with the full particulars of the situation.

ACCOUNTABILITY OF ALL PEOPLE POST EVACUATION

Once everyone has evacuated the Facility and arrived at their designated meeting place, a head count must be taken as soon as possible.

The Facility Manager is responsible for performing the head count and accounting for any missing people.

~~Time cards are used at the Facility on a daily basis. The Facility Manager will designate an individual to take the time cards with them to the designated meeting location. The time cards will be used to verify and account for all personnel working on site.~~

The names of the known or suspected locations for all unaccounted for people will be sent to the Facility Manager.

- The arrival and condition of stragglers will be sent to the Facility Manager immediately.
- The condition and location of any injured people will be sent to the Facility Manager immediately.

FIRST AID FACILITIES/EQUIPMENT

- A First Aid Kit is located in the Facility Office.
- Selected personnel have First Aid and CPR training to provide initial assistance.

Yukon Flats Health Center
Phone: (907) 662-2460; Emergencies after 5 p.m.: (907) 662-2462

Alternate Care Option: Fort Yukon EMS & Rescue Squad (907) 662-2460

1.3.5. Community Evacuation Plan

At this time, the Community of Ft. Yukon does not have an official Community Evacuation Plan.

Regional Organizations with Local Offices:

Canyon Village Traditional Council
P.O. Box 13 Fort Yukon, AK 99740
Phone: 907-662-2502

City of Fort Yukon
P.O. Box 269 Fort Yukon, AK 99740
Phone: 907-662-2379/2479, Fax: 907-662-2717

Council of Athabascan Tribal Governments
P.O. Box 33 Fort Yukon, AK 99740
Phone: 907-662-2587, Fax: 907-662-3333

Gwitchyaa Zhee Corporation
P.O. Box 329 Fort Yukon, AK 99740
Phone: 907-662-2933

Gwitchyaa Zhee Utility Company
P.O. Box 9 Fort Yukon, AK 99740
Phone: 907-662-2322/2359 (Shop), Fax: 907-662-2983

Native Village of Fort Yukon
P.O. Box 126 Fort Yukon, AK 99740
Phone: 907-662-2581, Fax: 907-662-2222

Yukon Flats School District
P.O. Box 359 Fort Yukon, AK 99740
Phone: 907-662-2515, Fax: 907-662-2519; Web Page: http://www.yukonflats.net

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1.4. COMMUNICATIONS

If a spill occurs at the Facility, the Office shall be the primary communications and information point, unless it is not safe to use.

During normal working hours the Facility Manager or alternate will notify critical personnel of a spill per Part 1.2.1. Outside normal working hours, the Facility Manager will notify terminal personnel by phone.

The Facility Manager is responsible for establishing communications during a spill event. Verbal communication among cleanup personnel will be adequate in most cases. When necessary, additional intrinsically safe hand-held portable VHF (very high frequency) radios are available at the tank farm to assist with communication needs. During a large spill (RPS-sized release) additional phone lines could be installed, if necessary.

The Facility Manager is responsible for maintaining an ICS 214 log of all communications. This communications log will include the date and time of the contact and the person and agency contacted.

	VHF Base	**VHF Handheld**	**SSB Base**	**Repeater**
No of radios: Standby channel: Location:	(1) Ch 06 Office	(4) Ch 06 Fuel Truck	None	WPFJ 913

FACILITY OFFICE

- Work Phone:..... (907) 662-2408/2672
- Fax.....(907) 622-2646

ANCHORAGE OFFICE

Crowley Fuels LLC
201 Arctic Slope Avenue
Anchorage, AK 99518

- Office phone.....(907) 777-5500
- Fax.....(907) 777-5558
- Telex: 090-25403
- VHF Radio:.....Channel 16 — calling; Channel 10 — working
- Single Sideband Radio: ..... 4149.0 MHz
- Call Letters:.....KTD-74

SEATTLE OFFICE

- Marine Dispatcher:.....(206) 332-8201
  Fax: .....(206) 332-8501
- VHF Radio:.....Channel 16 — calling
  ..... Channel 10 — working
- Single Sideband Radio: ..... 4149.0 MHz
  Call Letters:.....KNG — Seattle

COMMUNICATION EQUIPMENT

The following radio equipment is located at the Facility*:*

- (1) VHF Base Stations
- (4) VHF Intrinsically Safe Hand-held Radios

VHF radios have access to all of the standard marine VHF frequencies. VHF Frequencies will be assigned for operational, command and support functions. In the event that the scope of the response effort increases beyond the capabilities of the Crowley Communications Network, an expanded network is available from Crowley. As response efforts expand, frequencies will be dedicated for specific segments of the ICS.

OUTSIDE COMMUNICATIONS

Communications with ADEC, the Coast Guard, and others will be maintained by telephone. In the event that telephone lines are down, single sideband and/or VHF radios can be used.

- State Emergency Frequency.....155.295
- The primary frequency for all Marine Single Sideband contact within Alaska waters is 4125.00 MHz.
- The USCG Response Network uses Single Sideband 4125 and 2182 MHz.
- The USCG Response Network uses the standard Marine VHF frequencies:

  Marine Band Channel 83A —
  operates at 157.175 MHz and is the primary means of radio communication between the MSO/Group, field teams, and contractor teams in pollution cases.

  Marine Band Channel 22A —
  operates at 157.100 MHz and is the primary USCG-public liaison channel. Urgent marine broadcasts are announced on 16 and are broadcast on 22A. 22A is used to receive some pollution reports from the public. During a pollution case, 22A may be used by USCG Group to inform mariners of hazardous conditions or navigable waterway restrictions.

  Marine Band Channel 16 —
  operates at 156.800 MHz and is the international hailing and distress frequency. The MSO is called on 16 by mariners reporting pollution. In a pollution case, 16 may be used by USCG Group to alert mariners to urgent Captain of the Port information broadcast on 22A. Only in the most extreme cases would MSO broadcast pollution response information directly on 16. FCC regulations prohibit the use of Channel 16 by land mobile stations and non-SAR land fixed stations.

  Marine Band Channels 21A & 23A —
  operate at 157.050 and 157.150 MHz, respectively, and are the USCG operational channels. During a pollution case, information between Coast Guard units could be exchanged on these channels.

COMMUNICATIONS DESCRIPTION AND MAINTENANCE

- Handheld VHF Radios used in marine transfers are intrinsically safe. These are the primary on scene mode of communications between response personnel.
- Base Station VHF Radios have either 110v or 12v power. These stations have greater range than the handheld units and can be used for notification, command functions and relay.
- Single Side Band Radios (SSB) are used primarily for ship to ship and ship to shore communications. They have extremely long transmission capability in almost all areas of Alaska and the Pacific.

- Cellular Phones are assigned to management staff. All units have charging units. All units have the ability to "roam" throughout Alaska (and outside) where service is available. Cellular coverage is generally line-of-sight technology dependent upon weather, terrain and type of equipment.

ICS 214 COMMUNICATIONS LOG (See Part 3.3 for ICS forms)

All communications will be conducted based on the ICS designated Section, Unit and Task Force chain of communications. Each group leader will be responsible for assigning frequencies and setting up communications logs, as appropriate.

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1.5. DEPLOYMENT STRATEGIES

Deployment strategies include procedures for transportation of response resources to the spill site and mobilization of the response action contractor (if needed). Actions to be performed by Crowley Fuels personnel at the Facility are outlined at the end of this section. Internal notifications are listed in ~~Section 1.2, Reporting and Notification~~Section 1.2, Reporting and Notification.

1.5.1. Transportation to Spill Site

The Fort Yukon Facility response equipment is located and stored in the response van at the administrative office, is immediately ready for deployment, and can be mobilized within minutes of spill detection. Boom and skimmer could be deployed in one hour of personnel arrival. Activation times for particular Facility response equipment resources will vary depending on spill source and oil type, spill location, weather conditions, and personnel on-scene. Response time for on-site personnel is estimated to be 1–15 minutes. Target times for boom deployment from the dock is within 30 minutes of detection.

Other in-region manpower and resources are available from Anchorage, Nome, and Bethel and from barges in the area (see Nome and Bethel ODPCPs for a discussion of resources). In the event that additional response resources are required, aircraft will be the primary mode of transportation (see Logistical Support, Section 3.5). Ft. Yukon is regularly served by barge and aircraft. The State-owned Ft. Yukon Airport offers a 5,810' x 150' lighted gravel airstrip. Barge transit time, because of potential vast distances involved, could vary from hours to days. A Crowley petroleum barge is usually within 0-8 hours transit during the open water season, but maybe as much as 2 days away, depending on schedules.

If equipment or other resources is to be requested from another Crowley Fuels Facility, a request for approval of the transfer must be provided to the ADEC with a description of the proposed transfer that addresses each of the considerations set out below (per 18 AAC 75.470, Transfers Between Plan Holders).

(1) the Facility providing oil spill response equipment (provider), materials, or personnel must list:
  (A) the amount and types of equipment, personnel, or other resources to be transferred in response to a discharge and where it will be transferred;
  (B) the number and types of other plan holders who rely upon the provider's response equipment, personnel, and other resources;
  (C) the percentage by which the provider's response capability will be reduced by the transfer;
  (D) the ability of the provider to acquire and deploy alternate response equipment if an emergency discharge occurs while equipment, materials, or personnel are transferred; and
  (E) any compensating measures that will be taken by the provider to prevent or reduce the size of potential discharges during the period of reduced response capability; and

(2) the Fort Yukon Facility receiving the equipment must provide the time estimated for the response equipment to reach the discharge.

Items must be returned or replaced within 30 days, or the provider must submit an amendment to their ODPCP, unless an extension of the transfer is granted per 18 AAC 75.470(e). The provider's spill response capability cannot be reduced to less than 40 percent of the response capability identified in its ODPCP.

Estimated transport times are shown in ~~Table 1-1~~Table 1-1. Size of aircraft will be determined by size and quantity of equipment, number of personnel and availability. Dedicated response equipment and resources used for planning purposes are listed in ~~Table 1-2~~Table 1-2.

DEPLOYMENT DURING ADVERSE WEATHER CONDITIONS

For transport of equipment and personnel during adverse weather conditions, Crowley Fuel's primary concern during any spill response action is to maintain the health and safety of response personnel. Personnel will not be deployed if weather conditions threaten or prevent the safe operations. Adverse weather can slow mobilization time by up to one hour. For transport of equipment and personnel to a spill site during adverse weather conditions, travel time may increase required time by several hours. Extreme adverse weather conditions could prevent air delivery for a period of time varying from less than an hour to several days. Crowley Fuels is unaware of any alternatives other than by water or by air for deploying personnel and equipment (except if the spill remains local and is accessible by land). If weather conditions prevent the actual deployment of personnel and equipment, they will be maintained in a "ready" state at appropriate staging areas for immediate deployment when conditions improve. Assessment and planning will continue during this time.

1.5.2. Response Action Contractor (RAC) Mobilization

If outside personnel and equipment are needed, the Crowley Fuels QI, Operations Manager, Director Operations Integrity, or Facility Manager can request support from Chadux. Crowley Fuels has a Response Action Contract and Statement of Contractual terms (included in Section 3.8) with Chadux for oil discharges, which cannot be managed by Facility personnel and equipment. Chadux has numerous equipment hubs in western Alaska, as well as a central hub in Anchorage with a readily available fly-away cache of equipment (~~see Table 3-1, Appendix C of the Chadux Response Manual, and www.chadux.com/equipment.html~~ https://alaskaosro.org). Chadux can also supply personnel for oil spill response. Upon activation, Chadux personnel will mobilize to the Anchorage office within 60 minutes. Chadux personnel and equipment from Anchorage would be moved to the site by commercial or chartered aircraft. All Chadux response equipment is maintained in a state of readiness and is available for immediate use. Estimated mobilization and travel time from Anchorage-based contractors is between 6 and 24 hours (depending on flight availability and weather).

Contractor's 24-hour contact number:

* Alaska Chadux ~~Corp~~Network.....(907) 348-2365

Table 1-1 Average Travel Times to Ft. Yukon

From:	St. Mary's	Galena	Bethel	St. Michael	Fairbanks	Anchorage
Air time (hours):	3.0	1.25	1.5	9.0	0.5	3.5
Vessel (hours):	7.12	6.0	—	3.35	5.5	—

Mobilization of off-site resources consists of transporting resources from a storage location to the spill site and does not include deployment. In most cases, equipment and personnel would travel via chartered aircraft.

Adverse weather has the potential to impact all aspects of Chadux personnel and equipment mobilization and deployment. Responding parties will be cognizant of the potential for adverse weather to slow response times and will plan accordingly. The table below ~~(from the Chadux Response Manual, page 35, Figure 15, Adverse Weather Considerations)~~ summarizes the impacts of adverse weather on Chadux response activities. Section ~~3.4~~5.6 of the Chadux Response Manual presents a discussion of weather and other factors that may affect equipment mobilization/deployment.

Adverse Weather Considerations

Procedure	Time from notification (hrs.)	Adverse Weather Considerations
Mobilization of Chadux Anchorage personnel to office	1	Can slow mobilization by up to one hour.
Mobilization of Chadux Anchorage resources to transport (airport/ port)	4	Can slow mobilization by up to four hours.
Mobilization of resources from nearest Chadux hub to staging area	4–12	Travel time increased during adverse weather, may increase required time by several hours.
Mobilization of Chadux resources from other Chadux hubs (cascading) to staging area	12–24	Travel time increased during adverse weather, may increase required time by several hours.
Air delivery of equipment	See ACRM Section ~~3.5.5~~5.6	Adverse weather may prevent air delivery for a window of time varying from less than an hour to several days.
Contractor transport from destination airport to Staging Area	1–4	Transport time may increase during adverse weather.
Mobilization of out-of-state resources to Anchorage	12	Adverse weather may delay air travel for a window of time varying from less than an hour to several days.

Table 1-2 Response Planning Standard (RPS) Volumes and Crowley Delivery Times, Personnel, and Resources for Response at Ft. Yukon

Ft. Yukon						
Volumes^						
Vol. of Largest Tank (bbl)		6,858				
Volume after Reduction for Training	5%	6,515				
Volume after Reduction for Subs. Abuse	5%	6,189				
Volume after Reduction for Impermeable Secondary Containment/Dike	60%	2,476				
Volume after Reduction for Impermeable Liner under Full Storage Area	25%	1,857				
RPS (bbl.)		1,857				
Available Personnel		**Winter Oct-May**	**Summer June-Sept**	**Delay to on-scene (hrs)**		
Facility		3	3	0		
Barge personnel		0	6	0 to 8		
Anchorage — Crowley Fuels Personnel**		8	8	4 to 8		
Chadux		*As needed*	*As needed*	6 to 24		
Total		**11**	**17**	**0 to 8**	*Chadux not specified – over 60 available*	
Boom (feet)						
Facility — Fast-water & curtain boom		1,000	1,000	0		
Chadux Anchorage-Fast water		5,125	5,125	6 to 24	See: www.chadux.com	
Barges (1) (minimum barrel-o-boom)***		—	300	0 to 8		
Total (feet)		6,125	6,425			
Skimming Capacity						
	# Units	**Nameplate (bbls/hr)**	**Deployment (hr)**	**Total Skim Time (hrs)**	**% of Nameplate**	**Recovery by 72 hrs (bbl.)**
Facility — Elastec TDS-136	1	44	0.5	71	20	624
Chadux Anchorage	27	*(see ~~www.chadux.com~~ https:alaskaosro.org)*	6 to 24*	48*	20	58,624
Barges — Elastec TDS-136***	1	44	0 to 8	62	20	546
Total — oil recovery in 72 hours	** assume max deployment time (24 hrs) / minimum skim time*					**59,794**
Storage	**Units**	**Volume (bbl)**	**Deployment (hr)**			
Chadux Anchorage	39	6,589	6 to 24	*(see www.chadux.com)*		
Tank Trucks (5000, 4500, 2500, 700-gal)	4	302	0			
55-Gallon Drums	20	26	0			
Tankage aboard Crowley barge***		[1,000]	0 to 8			
Total — Storage (bbls) in 72 hours		**7,917**	******5,035 bbl. / Barge not included in total***			

^ Volume based on shell capacity of largest tank (ADEC Response Planning Standard (RPS) calculation, see 3.1.1)

* Note worst-case discharge volume would be during ice-free season at time of filling.

** Anchorage personnel and equipment assumed arrive via charter or commercial aircraft. Additional Crowley IMT personnel from Seattle would arrive within 8 to 24 hours. Chadux arranges for transport of Chadux assets (assume charter aircraft).

*** Estimate of resources and capacity usually available aboard barge in area (summer operating season only; See Crowley Fuels Alaska Oil Barge Operations ODPCP).

1.5.3. Interim Actions

Facility personnel can immediately initiate the following response actions until additional assistance arrives on scene.

a. Shoreside/Vessel Containment and Recovery Actions
   1. Block dock/deck drains and other points that would allow the product to discharge into the river.
   2. Use sorbent boom and sheets to immobilize and pick up spilled product.
   3. Transfer pooled oil into portable storage containers or slop tanks.

b. On-Water Containment and Recovery Actions
   1. If the size of the spill prohibits rapid recovery with available sorbents, containment booms will be deployed, if weather conditions permit such action.

      Booms may be placed around the vessel onshore if conditions allow the spilled material to be contained near the vessel. Booms may be deployed in a catenary sweep ahead of the oil movement using an anchor on the free end of the boom. This action may require the assistance of contractor equipment and personnel. If the catenary method is used, an attempt will be made to contain and purse as much oil as possible by drifting with the current and avoiding velocities in excess of one knot relative to the current.

      Caution will be exercised when a spill of flammable liquid occurs (gasoline, etc.) to prevent an explosion or fire. Flammable products spilled on the water will *NOT* be boomed. (Flammable liquids are products having a flash point of 80º Fahrenheit or lower.) Products that Crowley Fuels does not intend to boom when spilled on water are gasoline and AV100.
   2. If the slick is moving toward downstream sensitive areas, deploy boom and skimmers, or take other measures to protect these and/or other sensitive shoreline areas. More detail on the protection of environmentally sensitive areas is provided in ~~Section 1.6.4, Protection of Environmentally Sensitive Areas~~Section 1.6.4, Protection of Environmentally Sensitive Areas. Also refer to the information provided in Section 3.10, Protection of Environmentally Sensitive Areas.
   3. Arrange for storage tanks or vessel (tank barge), if necessary.

c. Tank Farm or Pumphouse Containment and Recovery Actions
   1. Close all valves to stop flow to the segment of the system causing the spill.
   2. Contain product by using sorbent material, blocking ditches, and constructing berms, dams, sumps and trenches.
   3. Arrange for portable pumps, tank or vacuum trucks, and storage tanks to collect and transfer pooled oil.
   4. If necessary, deploy containment boom and sorbents downstream of location where product may enter the water.

The ~~*Spill Tactics for Alaska Responders (STAR) Manual*~~*Spill Tactics for Alaska Responders (STAR) Manual* contains information on developing spill response strategies and deploying equipment systems to accomplish response objectives.

1.5.4. Assessment

An accurate assessment of the spill conditions is critical to safely and properly gauge the response to an oil spill. The Initial On-Scene Incident Commander should:

1. Establish response priorities (safety of personnel, vessel, environment, and cargo).
2. Determine spill origin/source.
3. Determine type of product released, rate of release, quantity, and location.
4. Determine safety hazard to personnel, contractors, and the general public.

5. Review cargo SDS or DOT Emergency Response Guidebook, as appropriate, for potential product hazards and further emergency actions (located in Facility office).
6. Evaluate the properties of the spilled oil as they influence movement, recovery, and environmental effects.
7. Estimate spill size and movement.
8. Determine level of response actions and appropriate personal protective equipment required.

1.6. RESPONSE STRATEGIES

This section provides spill scenarios and response procedures (following ADEC requirements; 18 AAC 75.425(e)(1)(F) and 18 AAC 75.432). Federal Response Planning standards for small, medium, and worst-case spill scenarios (based on 40 CFR 112 and 33 CFR 154) are provided in Section 2.3, Potential Discharge Analysis. The response procedures illustrate Crowley Fuel's primary response to potential operational discharges and may apply to both specific (i.e., the scenarios) and generalized situations. The three scenarios discussed are:

- Small spill scenario — spill originating from a loading rack transfer component failure during a truck transfer; Diesel #1 – 350 gallons.
- Medium spill scenario — oil spill originating from a hose separation during a marine delivery; Diesel Fuel #1 – 3,000 gallons
- RPS Worst-case spill scenario — oil spill originating from a tank failure, 288,043-gallon capacity; Diesel #1 – Adjusted RPS = 77,988 gallons

These scenarios illustrate probable responses to hypothetical spills. The actions are not specifically prescribed procedures for all such events, as the actual response would be dependent on several variables including weather, season, personnel safety and exact circumstances of the spill. For each scenario, the response procedures are similar. Detailed descriptions of procedures are included in other sections of this ODPCP/FRP.

- Emergency Action Plan ..... ~~Section 1.1~~Section 1.1
- Reporting and Notification ..... ~~Section 1.2~~Section 1.2
- Safety Procedures/Evacuation ..... ~~Section 1.3~~Section 1.3
- Communications Plan Implementation ..... ~~Section 1.4~~Section 1.4
- Equipment and Personnel Locations ..... ~~Sections 1.5~~Sections 1.5; 3.3, 3.6, and 3.8

— SCENARIO A —

SMALL DISCHARGE SCENARIO	
This spill scenario provides hypothetical oil spill response activities for an oil spill originating from a loading rack transfer component failure during a truck transfer. It is designed to demonstrate the ability to respond to an event of this size and location.	
RESPONSE TYPE:	**TYPE / AMOUNT:**
Facility personnel	Diesel – 350 gallons (8.3 bbl.)
SOURCE	
A tank truck is being loaded with diesel fuel when a loading rack transfer component fails spraying out fuel oil. Diesel fuel has spilled onto the loading rack pad with the majority of it being contained within the containment and curbing. Some fuel has sprayed and splashed over the concrete curb and onto the ground.	

TIME:	0900, January 12, 2004	**WIND:**	2–5 knots W Average current is 4.5 knots
SEASON:	Winter The Yukon River Slough is frozen and snow covered, and there is snow and ice on the ground.	**TEMPERATURE:**	-10º F
VISIBILITY:	Clear skies — 10 miles	**LOCATION:**	Crowley Fuels Ft. Yukon, Alaska

ASSUMPTIONS:
1. Safe to commence response operations.
2. The cause of the spill has no impact on the size or duration of the spill event.
3. Evaporation and emulsification are not considered.
4. No injuries are associated with the failure of the transfer component.
Fuel Concentration: Approximately 350 gallons spilled with about 280 gallons contained within the containment and curbing (see ~~Figure 1-10~~Figure 1-10 for location). Roughly 70 gallons has spilled over the side of the containment and is moving in a northerly direction and collecting on the ground in the depression between the concrete truck pad, the driveway and the FAA VORTAC access road.

TIMELINE	SUPPORTING ACTION TAKEN:
0 to 30 minutes	The loading rack operator sees the spill and immediately takes the following steps. [Refer to ~~Section 1.1, Initial Action Checklist~~Section 1.1, Initial Action Checklist.] 1. Stop the product flow. [Refer to ~~Section 1.6.1~~Section 1.6.1.] 2. Warn any other personnel of the possible danger. [Refer to ~~Sections 1.1~~Sections 1.1, ~~1.2~~1.2, and ~~1.3~~1.3.] 3. Shuts all ignition switches off. 4. Initiates containment. [Refer to ~~Section 1.6.6~~Section 1.6.6.] 5. Notifies Facility Manager. [Refer to ~~Sections 1.1~~Sections 1.1 and ~~1.2~~1.2.] Facility Manager (OSIC) fills out ~~ADEC Spill Report Form~~ADEC Spill Report Form and notifies O'Brien's Response Management, and makes other notifications, as necessary. [Refer to ~~Section 1.2~~Section 1.2.]
TIMELINE	**PROCEDURES TO STOP DISCHARGE:**
1 min.	The loading rack operator immediately shuts down the transfer pump by switching the emergency shutdown.
2 to 5 min.	The operator takes the spill kit located inside of the tank truck and uses the absorbents to try to stop the spread of the fuel.
5 to 10 min.	He then notifies his crew to get more absorbent material from the pump house. (Refer to equipment lists at Section 3.6.)
TIMELINE	**FIRE PREVENTION AND CONTROL:**
10 min.	Assure No ignition source or open lights are present. No fire is associated with this release. In the event of fire, the Ft. Yukon Fire/Police Department would be contacted via 911. This call would coordinate any firefighting efforts with the facility. Fire extinguishers are located at loading rack and in tank farm.

TIMELINE	DISCHARGE TRACKING:
Ongoing	Discharge remains localized in the immediate vicinity at the truck loading rack.
TIMELINE	**PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:**
Ongoing	All responders are reminded to leave a minimal footprint in the response area. Fuel does not leave Facility property and no resources are at risk. The fuel will not reach the water, it is winter, the ground is snow covered, and the river is frozen.
TIMELINE	**CONTAINMENT AND CONTROL STRATEGIES**
1 min.	1. Fueling operations are immediately shut down and barriers to traffic are put up for security purposes.
5 to 15 min.	2. Assessment of size and containment of spill are made.
10 min. to 2 hrs.	3. Facility personnel are deployed with PPE to the spill site to initiate recovery operations and control any outward movement of oil by building a berm of sorbent material and snow with shovels and hand tools.
TIMELINE	**RECOVERY STRATEGIES:**
5 min. to 2 hrs.	On the concrete apron, Facility personnel lay down a double row of sorbents to pick up much of the liquid.
2 hrs. to 7 hrs.	Once the flowing fuel has been contained, the facility supervisor instructs the cleanup crew to shovel all of the contaminated snow into empty 55-gallon drums.

TACTICS:	EQUIPMENT:
LAND: Debris/snow removal Sorbents	Lined Containment barrels Proper PPE Shovels Sorbent wringer
OTHER: Liquid Waste Storage Solid Waste Storage Security and Surveillance	Drums Sorbents Facility personnel

TIMELINE	RECOVERED OIL TRANSFER AND STORAGE:
30 mins. to 2 hrs.	The transfer pump is set up and started at the tank farm containment with a transfer hose connected to 55-gallon drums. Within 2 hours of the spill all liquid oil has been transferred into 55-gallon drums.
TIMELINE	**TEMPORARY STORAGE AND ULTIMATE DISPOSAL:**
2 to 4 days	The 16 drums containing the recovered oil/water will be shipped via barge to an ADEC approved facility for disposal, used internally, or burned in the Smart Ash burner.
2 hrs. to 36 hrs.	Oily debris and used sorbents will be wrung out into drums, air-dried, and reused or disposed, or burned onsite in the Smart Ash burner.
Ongoing	All waste will be managed in accordance with state and federal guidelines.

UNIFIED COMMAND DECISIONS:
1. With small spills, generally the UC is not initiated.
2. QI / Facility Manager satisfied that threat of spreading oil has been eliminated.
3. O'Brien's RM completes notification to Crowley Fuels QI, and the ADEC and EPA (~~Section 1.2~~Section 1.2).
4. All work will be in conjunction with QI approval.
5. Disposal will be in accordance with state and federal requirements.
WILDLIFE PROTECTION:
Generally, this size of spill does not threaten wildlife, especially in winter; however, if it were a concern, the following would take place:
1. Special consideration must be given to potential wildlife in the area. Responders would report any wildlife near the spill site to the Facility Manager (ongoing).
2. The International Bird Rescue (IBR, available through Chadux) would be placed on standby in the event any oiled birds are observed. (1 hour)

3. Appropriate bird capture and wildlife hazing permits will be completed as necessary (2 to 4 hours).
4. Response activities in the area should reduce the likelihood of contaminated wildlife.
5. The Alaska Dept. of Fish and Game is notified (within 30 mins.).
6. Clean up the spill and minimize footprint to area (ongoing).
SUMMARY:
1. Cleanup and recovery efforts continue until the QI and ADEC agree the cleanup has been completed. It is estimated that all the fuel is contained by snow and recovered (less any lost to evaporation)
2. Facility Manager orders materials to replace those expended during the response.
3. All resources are demobilized, cleaned and put back in their storage location.
4. Within 15 days of the cleanup, a written report of the spill is submitted to the ADEC from the Environmental Manager or the QI.

DAY ONE RESPONSE ACTIVITIES			
UNIFIED COMMAND ACTIVITIES:			
COMMAND	**PLANNING**	**LOGISTICS**	**OPERATIONS**
Incident Commander * Establish Goals & Objectives **Liaison** * Complete Agency Notification * Establish Community notification **Safety** * Provide initial Site Safety briefing **Security** * Establish security at Spill Site	**Planning Section Chief** * Identify/Prioritize Sensitive areas * Prepare Hazing & Capture Permits * Prepare Wildlife Plan * Prepare Waste Management Plan * Establish short term plan * Document all Spill Activities	**Logistics Section Chief** * Coordinates transportation and disposal of oily waste after proper approvals	**Operations Section Chief** Supervise: * Recovery Operations * Transfer component replacement operations * Disposal Activities

SPILL RESPONSE EQUIPMENT TABLE (Scenario A)

	Task Force 1		Wildlife		Safety		Other		
Equipment List									**Totals**
Truck spill kit	**1**								**1**
Sorbent boom (rolls)	**2**								**2**
Absorbents (bales)	**5**								**5**
2" Portable Pump	**1**								**1**
2" Suction hose	**1**								**1**
2" Discharge hose	**1**								**1**
55-gallon Drums	**16**								**16**
Tyvek suits					**4**				**4**
Boot covers					**4**				**4**
Gloves					**4**				**4**
Hand Held VHF	**1**								**1**
Base VHF	**1**								**1**
Sorbent Wringer	**1**								**1**
Hazing Kit (PRAC, if necessary			**1**						**1**
Personnel*	**4**								**4**

* Note: Personnel totals are split between Supervisors / Workers

— SCENARIO B —

MEDIUM DISCHARGE SCENARIO	
This spill scenario provides hypothetical oil spill response activities for an oil spill originating from a hose separation during a marine cargo delivery. It is designed to demonstrate the ability to respond to an event of this size and location.	
RESPONSE TYPE:	**TYPE / AMOUNT:**
Facility personnel	Diesel Fuel #1 – 3,000 gallons (71.5 bbl.)
SOURCE	
Diesel fuel is being off loaded during a marine delivery to the facility when the transfer hose fails near the vessel. Diesel fuel is flowing into the river and is collecting between the vessel and the shore.	

TIME:	1000, July 5, 2004	**WIND:**	Light, easterly River current is at 3 knots
SEASON:	Summer	**TEMPERATURE:**	75 Degrees
VISIBILITY:	10 miles – approximately 24 hours daylight	**LOCATION:**	Crowley Fuels Ft. Yukon, Alaska

ASSUMPTIONS:

1. Safe to commence response operations after INITIAL evaluation.
2. No injuries are associated with the incident.

Fuel Concentration: Fuel is located in an area between the barge and the shore and is starting to drift alongside the vessel with the current. There is a visible sheen on the surface of the water. Approximately 3,000 gallons has spilled and about 2,500 gallons is going into the Yukon River.

SUPPORTING ACTION TAKEN:

The designated "Person In Charge" serving as shore-side hose watch and the tankerman on board the barge take the necessary steps (completed within 30 minutes). [Refer to ~~Section 1.1, Initial Action Checklist~~Section 1.1, Initial Action Checklist.]

1. Stop the product flow. [Refer to ~~Section 1.6.1~~Section 1.6.1].
2. Warn any other personnel of the possible danger.
3. Shuts all ignition switches off. [Refer to ~~Section 1.1~~Section 1.1 and ~~1.3~~1.3.]
4. Initiates containment by deploying 200' of the barge's boom between the barge and shoreline. [Refer to 1.6.5.]
5. Notifies Facility Manager (OSIC). [Refer to ~~Section 1.2~~Section 1.2.]

OSIC Mobilizes Facility personnel and resources.

Facility Manager (OSIC) fills out ~~ADEC Spill Report Form~~ADEC Spill Report Form and notifies O'Brien's RM Dispatch to initiate Crowley Fuels notification sequence, and makes other notifications (police and fire departments) as necessary. [Refer to ~~Section 1.2~~Section 1.2.]

Crowley Fuels QI/IC in Anchorage contacts Chadux for standby notification in case additional resources are required.

TIMELINE	PROCEDURES TO STOP A DISCHARGE:
1 to 5 mins.	The tankerman on board the barge notices the pressure drop and immediately shuts down the pump and secures the main discharge valve.

TIMELINE	FIRE PREVENTION AND CONTROL:
10 to 30 mins.	Assure No ignition source or open lights are present. No fire is associated with this release. The Ft. Yukon Fire Department is contacted via 911 to warn the local community and assist with access control to the spill site. Fire extinguisher is staged at the site.

TIMELINE	DISCHARGE TRACKING:
30 mins. to 6 hrs.	Discharge remains localized in the immediate vicinity between the vessel and the shore, and within the containment booms. The Captain of the tug dispatches the marine crew, using the tug/barge response boat, downriver to inspect for possible contamination. None was found. On their return, they collect oiled debris inside the booms and store it in spill response disposal bags.
Ongoing	Local entities downstream are asked to report any observed oil to the Facility.
TIMELINE	**PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:**
30 mins. and ongoing	The Alaska Department of Fish and Game is notified, but because of the deployment of containment boom adjacent to the barge and secondary boom downstream, and that no oil has been found outside of the containment booms, they don't respond to the scene.
TIMELINE	**CONTAINMENT AND CONTROL STRATEGIES**
1 to 2 mins	• Transfer operations are immediately shut down.
Ongoing	• Assessment of size and containment of spill are made.
5 mins to 2 hrs.	• The OSIC and the tug captain divide their personnel into two teams – shore-side and on-water. Each team is equipped with a VHF handheld radio. • Tug/Barge crew deploy containment boom along side of barge where hose failed to collect oil adjacent to barge. • Upon notification by the PIC via VHF radio, the OSIC orders his crew to deploy 100' of facility containment boom just down current of the first boom to catch any escaping product. The crew then deploys an additional 300' of river boom (tertiary) downstream from their response equipment. The boom is set in place within 45 minutes of the spill. [Refer to equipment lists in Section 3.6.] • Tankerman deploys Elastec skimmer within primary containment boom. Tankerman starts pump to begin skimming operations. • Response teams are deployed to the spill site to initiate recovery operations and control any outward movement of oil. The shore-side team transfers the needed spill response equipment to the spill site, including a skimmer, sorbents, transfer pumps and hoses. • Response teams will limit contamination of shore side areas by deploying containment boom adjacent to the barge and secondary boom from the facility's response equipment (100' facility and 300' vessel). • Absorbent boom/sweep is placed along the shoreline to help prevent contamination of the shore.

TACTICS:	EQUIPMENT:
LAND: Recovery (see ~~STAR Manual Shoreside Recovery and On-land Recovery~~STAR Manual Shoreside Recovery and On-land Recovery) Debris Removal	Lined containment barrels Sorbent pads and sorbent boom Proper PPE Shovels/rakes Sorbent wringer
WATER: Shoreside Containment (see ~~STAR Manual Containment Boom~~STAR Manual Containment Boom) Sorbent Sweep (see ~~STAR Manual Passive Recovery~~STAR Manual Passive Recovery) Skimming (see ~~STAR Manual On-water Free Oil Recovery~~STAR Manual On-water Free Oil Recovery)	Fast Current Containment Boom Elastec Skimmers (2) Facility response boat Sorbent sweeps/boom
OTHER: Liquid Waste Storage Solid Waste Storage (see STAR Manual ~~Land-based Storage and Transfer of Oily Liquids~~Land-based Storage and Transfer of Oily Liquids)	Empty cargo tank on barge Lined containment drums Facility and vessel personnel

Security and Surveillance	
TIMELINE	**RECOVERY STRATEGIES:**
10 mins. to 1 hr. Ongoing	• Two Elastec Skimmers (1 from the facility and 1 from the barge) placed inside containment boom. Recovery capacity = 8.8 bbl/hr (derated 20%). • Sorbent boom collects oil at shoreline and prevents spreading to shore and into sediment. Sorbents are changed and wrung out as they become saturated. • Use fire hose and nozzle to assist in directing spilled product to the recovery area (tug/barge).
TIMELINE	**RECOVERED OIL TRANSFER AND STORAGE:**
20 mins and ongoing	The recovered liquid is being pumped back into the barge to an empty cargo tank. The *RW 11* barge's largest tank is 29,400 gallons (700 bbl.). The Elastec is rated at 8.8 bph@20%. It is estimated to take 4-5 hours to recover the spilled product with the two skimmers operating. Most of the oil was contained within the boom deployed around the barge, which allowed for an effective recovery. 55-gallon Drums are available for recovered product, as well as 1 x 800; 1 x 2,500 and 1 x 5,000-gallon tank trucks. Portable pumps/hoses are used to transfer oil and oil/water mixture collected in drums and trucks into barge tanks. All temporary storage areas will be lined prior to storing oiled debris.
TIMELINE	**TEMPORARY STORAGE AND ULTIMATE DISPOSAL:**
2 to 4 days	The recovered oil/water will be shipped via barge to an ADEC approved disposal Facility, used onsite, or burned in the Smart Ash burner.
2 hrs. to 48 hrs.	Oily debris and used sorbents will be wrung out into drums, air-dried, and reused or disposed, or burned onsite in the Smart Ash burner.
Ongoing	All waste will be managed in accordance with state and federal guidelines.
TIMELINE	**WILDLIFE PROTECTION:**
Ongoing 30 mins. 1 hr. Ongoing	Special consideration must be given to potential wildlife in the area if the wildlife is threatened. Responders will report any wildlife near the spill site to the Facility Manager. The Alaska Department of Fish and Game is notified. The IBR is placed on standby and will be mobilized in the event any oiled birds are discovered. Response activities in the area should reduce the likelihood of contaminated wildlife. Clean up the spill and minimize response footprint to shores.
SUMMARY:	
• Cleanup and recovery efforts continue until the QI and ADEC agree the cleanup has been completed. • Facility Supervisor orders materials to replace those expended during this cleanup. • All resources are demobilized, cleaned and put back in their storage location. • Within 15 days of the cleanup, a written report of the spill is submitted to the ADEC from the Environmental Unit Leader or the QI.	

DAY ONE RESPONSE ACTIVITIES			
UNIFIED COMMAND ACTIVITIES:			
COMMAND	**PLANNING SECTION**	**LOGISTICS SECTION**	**OPERATIONS SECTION**
Incident Commander * Establish Goals & Objectives **Liaison** * Complete Agency Notification * Establish community notification **Safety** * Provide initial Site Safety Plan **Security** * Establish security at Spill Site	**Planning Section Chief** * Identify/Prioritize sensitive areas * Prepare Hazing & Capture Permits * Prepare Wildlife Plan * Prepare Waste Management Plan * Establish short term plan * Document all Spill Activities	**Logistics Section Chief** * Mobilize spill team	**Operations Section Chief** * Recovery Operations * Disposal Activities

SPILL RESPONSE EQUIPMENT TABLE (Scenario B)

Equipment List	Task Force # 1		Wildlife / ESA		Safety		Other		Totals
Fast Current Containment boom (vessel)	300'								300'
Fast Current Containment boom (facility)	300'								300'
Elastec skimmer (vessel)	1								1
Elastec skimmer (facility)	1								1
Air compressor	1								1
Fire hose/nozzle	1								1
Absorbent boom/sweep	5								5
Absorbents (bales)	10 bales								10 bales
3" Portable Pump	1								1
Transfer Hose (suction)	1								1
Transfer Hose (discharge)	1								1
55-gallon Drums	10								10
Tank trucks	3								3
Plastic bags	2 pkg								2 pkg
Tyvek suits					6				6
Boot covers					6				6
Gloves					6				6
Respirators					6				6
Hand held VHF	2								2
Base VHF	2								2
Sorbent Wringer	1								1
Bird Hazing Equip. (From PRAC, if necessary)			1						1
PERSONNEL*	9								9

* Note: Personnel from Facility (3) and tug/barge crew (6); are split between Supervisors / Workers

RECOVERY CAPABILITY (Scenario B)

Equipment Type	Source	Derated (20%) EDRC	Recovery Capability by 72 hrs
Elastec TDS 136	Barge	211 bpd	625 barrels (working ~71 hrs)
Elastec TDS 136	Facility	211 bpd	625 barrels (working ~71 hrs)
Derated Recovery Capacity @ 20%:		**422 bpd**	**1,250 bbl (52,500 gal)**
Total Volume Spilled:		**71.5 bbl**	***On site resources are sufficient to recover spill within 4-5 hours @ 8.8 bph***
On Site Storage Total = 1,028 bbl.:		Tankage aboard Barge = minimum 700 bbl. (3) Tank trucks = 302 bbl. (total) (20) 55-gallon drums = 26 bbl.	

Additional pumps and skimmers and storage assets are available through Chadux, if needed (see: www.chadux.com).

— SCENARIO C —

RPS WORST CASE DISCHARGE SCENARIO			
This hypothetical spill scenario depicts an RPS oil spill originating from a tank failure. It is designed to demonstrate the ability of Crowley Fuels to respond to an event of this size and location.			
RESPONSE TYPE:		**TYPE / AMOUNT:**	
Catastrophic Tank Failure		Jet A Fuel– 288,043 gallon capacity RPS: 77,988 gallons (1,857 bbl.)	
SOURCE			
The wall of storage tank 39 fails after filling the tank to its safe fill volume (273,641gallons/6,515 bbl.). The surge from the tank rupture washes part of the oil over the secondary containment dike (~~Figure 1-6~~Figure 1-6).			
TIME:	0800, June 30	**WIND:**	N 5 knots
SEASON:	Summer Partly cloudy skies	**TEMPERATURE:**	Upper 60s (ºF)
		VISIBILITY:	Good visibility; daylight is almost 24 hours
RIVER CURRENT:	2 knots	**LOCATION:**	Crowley Fuels Ft. Yukon, Alaska

ASSUMPTIONS:

- Company personnel discover the spill into the diked secondary containment area immediately after filling the tank to its safe fill volume and notify supervisor.
- Initial site characterization and air monitoring conducted to determine whether it's safe to commence response operations (Refer to 1.3.1).
- Fuel Concentration: For purposes of this scenario it is assumed that the secondary containment was able to contain 203,732-gallons/4,851 bbl. of the total fuel spilled. An estimated 69,909-gallons/1,665 bbl. escape the impermeable secondary containment over the tank truck-loading pad on the north side of the tank farm. Oil is pooling in the lined gravel pad between the berm and adjacent roadway and spreading to the north (~~Figure 1-6~~Figure 1-6).

INITIAL INCIDENT OBJECTIVES:

1. Stop the product flow. [Refer to ~~Section 1.6.1~~Section 1.6.1].
2. Assess situation and warn any other personnel of the possible danger. [Refer to ~~Section 1.2~~Section 1.2, and ~~1.3~~1.3.]
3. Shut all ignition switches off.
4. Initiate containment. [Refer to ~~Section 1.6.6~~Section 1.6.6.]
5. Initiate notifications by calling O'Brien's RM and local police and fire departments. [Refer to ~~Section 1.2~~Section 1.2.]
6. Mobilize Crowley Fuels and response contractor (Chadux) resources.
7. O'Brien's RM contacts Crowley Fuels QI and notifies Chadux and applicable government agencies. [Refer to ~~Section 1.2~~Section 1.2.]
8. Command Post #1 is set up at the tank farm office and Command Post #2 is set up at Crowley Fuels' Anchorage office.

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
1-10 min.	All personnel alerted via radio and voice. Personnel accounted for at office and muster area. All electrical systems with potential risk for fire are shut down.
10-15 min.	Facility Supervisor (OSIC) surveys the damage, assesses site for safety hazards, and directs (2) personnel to establish exclusion and control points along the roadway in front of the facility. Objectives: SAFETY, CONTAINMENT, TRANSFER & RECOVERY.
15 min.	OSIC contacts O'Brien's RM Dispatch, Fire Dept. and Operations Manager in Anchorage to report the spill. O'Brien's RM Dispatch makes initial notifications to Crowley Fuels Anchorage-based QI for IMT mobilization (ETA +8 hours), Chadux (alert for standby), and makes appropriate notifications to ADEC, EPA, USCG, and ADNR (per ~~Section 1.2~~Section 1.2).
20 min.	OSIC formulates initial Site Safety Plan & briefs personnel. Personnel dress in appropriate PPE and mobilize as one team and await additional local and Chadux responders to arrive for establishment of Task Force 2. • **TF-1**, on land containment and recovery (3 personnel) • **TF-2**, recovery and transfers – damaged tank/secondary containment area (SCA; 2 personnel).
30 min.	OSIC designates an Incident Command Post at the Office. Fire Department arrives and sets up security and access controls on roads and assesses potential public safety issues. The Crowley Fuels QI notifies Chadux and places a resource order to activate Chadux resources, including (20) Chadux personnel, (2) IBR personnel, and equipment from Anchorage (skimmers (2 Manta Ray, 1 SkimPak 18000), pumps, storage assets (6–2,400 gal. fast tanks, 4–20K gal. land bladders), additional PPE and decon kits), ETA via air charter 5-hrs. The QI confirms that notifications to ADEC, EPA and other agencies have been made. OSIC arranges with City of Fort Yukon and GZ Corporation to rent their loader and dump truck.
30 min. – 2 hrs.	**TF-1:** Personnel blocks culverts under road and checks for storm drains or other drainage pathways and blocks any found, as necessary to ensure pooled oil stays contained. Personnel use hand tools and heavy equipment to construct berms and dams where the oil has pooled, and across the driveway and road to intercept the migrating oil (see ~~STAR tactic: Dikes, Berms, and Dams~~STAR tactic: Dikes, Berms, and Dams). Earthen fill from the city gravel pit is brought in to build temporary berms. Sorbents are deployed to collect and block oil flow (see ~~STAR~~STAR Tactic: Passive Recovery).
1-2 hours	OSIC surveys the immediate area for spill assessment, volume and areal estimate, and to ensure no oil is threatening the river or slough. Area is checked for possible sensitive resources and wildlife activity, or impact to neighboring property.
2-3 hours	OSIC has teleconference with QI, Chadux Manager, EPA and ADEC representatives. OSIC briefs them on the situation, actions taken and discusses potential tactics and resource needs. A Unified Command is established. EPA requests NOAA weather forecasts and oil persistence calculations. Crowley Fuels Marine Operations Director in Anchorage identifies an additional Crowley barge to mobilize to the scene for additional storage capacity (i.e., river barge with at least 7K bbl. storage capacity), and requests immediate mobilization to Fort Yukon.

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
2-7 hours (Ongoing)	TF-1 — constructs interception trenches/pits in the path of flow for containment and enhanced recovery operations, which are lined to prevent penetration of oil into sediment (~~STAR tactic: Pits, Trenches, and Slot~~STAR tactic: Pits, Trenches, and Slots). They then set up portable pumps/hoses and begin recovery and transfer of recovered product to tank trucks (~~STAR tactic: On-land Recovery~~STAR tactic: On-land Recovery). As they reach capacity, the trucks are pumped out into empty barge at dock (if no barge on site, could use emergency horizontal storage tanks at old tank farm, or discharge into SCA). Crowley Fuels IMT personnel (8 including (6) IMT contracted personnel); Chadux managers, (20) spill responders; IBR wildlife responders; and Chadux equipment from Anchorage arrive on-scene via charter aircraft (Hour 5). Personnel check in at ICP and are briefed on safety plan, situation status, and assignments. **TF-2** checks the integrity of SCA dike and prepares skimmer, pumps and hoses for transfer of oil contained within SCA to Chadux land bladders. TF-2 — sets up Elastec skimmer (8.8 bbl/hr (derated 20%), pumps and hoses for transfer directly to land bladders (assume: 3 pumps – from yard (2) and Chadux (1) (3" & 4" at 300–450 gal/min ea.). Recovery operations start pumping from SCA to land bladders. **TF-3** – (3) Chadux responders establishes Staging Area. Arriving equipment is checked in and assigned for deployment. Decontamination sites are also prepared under Safety supervision at staging area and on driveway using Chadux decon kits (see ~~Section 1.3.2~~Section 1.3.2 for decontamination procedure). Chadux equipment from Anchorage continues to be deployed to support task forces: **TF-1 / outside SCA** • Recovery — (2) 3" pumps/hoses, (2) Manta Ray skimmers to pump oil pooled on ground and from collection sumps and trenches • Storage — (4) 2,400-gal. fast tanks are set up on the driveway and road for recovered oil storage • Chadux responders — (11) assigned to TF-1 and begin to delineate the spill area in front of the SCA, set up/operate equipment and continue recovery & transfer operations. They continue digging lined trenches and pits around the perimeter of the contaminated area to contain & concentrate oil and delineate outside edge; heavily contaminated gravel/soil is pushed towards center to reduce spreading. **TF-2 / SCA** • Recovery — 3" pumps/hoses, (1) SkimPak 18000 skimmer to recover oil from within SCA (2,054 bbl., derated (20%) EDRC). • Storage — the (4) 20,000-gal. (476 bbl.) land bladders • Chadux responders — (6) assigned to TF-2 to set up/operate equipment and continue recovery & transfer of fuel from the SCA.

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
8 hours	Crowley Fuels IMT arrives on-scene (6 personnel from Anchorage via commercial aircraft). New personnel are briefed on situation by OSIC. IMT is briefed of progress. Command transferred from OSIC to QI/IC. Formalized ICS sections established at ICP. Unified Command (UC) establishes response objectives: • Safety of personnel, coordinated response effort, spill containment, identify and protect sensitive areas, recovery of spilled fuel, keep community stakeholders and public informed. Operations Section Chief and Chadux Manager review and confirm task force assignments upon transition to UC. Schedule established for shift change at 2200 hours for TF-2 to continue transfer operations at SCA through the night. The Safety Officer drafts the Site Safety Plan, incorporating initial site safety plan, for spill response and submits to UC for approval. Logistics Section identifies accommodations, provisions, and local transportation for out-of-town personnel. Additional support resources identified and procured.
9 hours	Wildlife team formed (Wild-1; 2 personnel from IBR, 1 agency) and initiates monitoring and surveillance operations in accordance with ~~ARRT~~ARRT Wildlife Protection Guidelines. Appropriate Capture/Hazing permits are filled out by Environmental Unit and submitted to Resource agencies through Environmental Unit/Planning Section to UC. Chadux's wildlife hazing kit from Chadux van on site is readied in case of need. Archaeological monitoring team assembled and initiated, if previously determined necessary by AK DNR, OHA/SHPO (2 personnel designated by SHPO office).
12 hours	Logistics Section assigned to establish a lined pit area for placing contaminated sediment & vegetation and to secure equipment and trucks for excavation work as oil is removed from the tertiary containment. Planning Section tasked to obtain necessary permits for soil removal, storage, remediation, disposal and waste transport. Lodging & meals secured for out-of-town personnel through Logistics Section.
End DAY 1	Operations continue as set for Task Forces. Shift change & briefing. Unified Command reconfirms response objectives. Joint Press Release prepared. Night shift to continue recovery and transfer operations. General Staff to develop Incident Action Plan (IAP) for DAY 2 operational period. Planning Section Chief establishes meeting schedule for Day 2. Key activities: COMMAND — liaison, Unified Command objectives, press release, public information OPS —- transfers, recovery, waste storage and disposal, equipment maintenance, and decontamination PLANNING — IAP development, environmental and wildlife monitoring, situations and resource tracking, excavation and remediation plan development, permits, Waste Disposal Plan for the transfer of wastes to disposal facilities developed and submitted to the UC for approval. LOGISTICS — radio communications, transportation, support equipment and supplies, meals and lodging

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
Day 2 of Response	
DAY 2 Ongoing	Objectives and Strategies for Operational Period Day 2: • Ensure personnel safety • Maintain containment and recover spilled fuel • Transfer recovered fuel for storage and disposal • Protect environmentally sensitive areas • Manage waste efficiently • Construct lined pit for temporary storage of excavated sediment & vegetation • Coordinate response with Chadux and with agencies • Arrange for engineering contractor to evaluate damaged tank
0600	Shift change. Personnel safety and shift briefing. Resources assigned and deployed as specified in approved IAP for DAY 2 operational period.
Ongoing	TF-1 — maintains containment and continues recovery and transfer operations. Trucks transfer recovered liquid oil from portable storage devices as they reach capacity to the land bladder. TF-1 continues recovery & transfer operations until all standing oil is recovered. Once assured no pooled recoverable oil remains in pits and trenches, TF-1 ceases recovery operations (2000). [Personnel will then transition to assist with other task forces, and decon and demob of equipment no longer in use. Plume delineation and monitoring of residual oil flow continue. Tank truck remains available to collect any oil that continues to seep into pits/trenches. TF-2 — maintains containment and continues recovery and transfer operations at SCA. Transfer line to marine header has been pigged and direct pumping of fuel from the SCA into designated land bladders. (400 bbl/hr). Area is identified on Facility property for a large, lined containment pit for temporary storage of excavated soil and vegetation debris. TF-3 — Staging, Decon, Waste Management Oily wastes (solid) generated by the response are segregated and placed in waste disposal bags, stored in drums, and taken to staging for sorting and consolidation in preparation for transport to a disposal facility with the proper permitting per the approved Waste Management Plan (~~STAR~~STAR tactic: Land-based Storage and Transfer). Team Wild-1 — Wildlife monitoring and surveillance continue (per ~~AART Wildlife Guidelines~~ARRT Wildlife Guidelines). No active hazing has been required or performed to date.
0700	Unified Command meeting. Initial reports of recovered oil volumes are provided.
	TF-4 — formed and begins to build a lined temporary storage pit for excavated contaminated sediment and vegetation. Local contractors with heavy machinery and dump trucks identified and hired to support this and sediment removal work once no pooled diesel remains in areas outside secondary containment (i.e., Faulkner Walsh Construction).
1800	Shift change. Personnel safety and shift briefing.
End DAY 2	General staff develops IAP for DAY 3 operational period. Press and media briefing prepared. Meeting schedule is established for Day 3.

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
Day 3 of Response	
DAY 3	Objectives and Strategies for Operational Period Day 3: • Ensure personnel Safety • Maintain Containment and Recovery of spilled fuel • Transfer recovered fuel for Storage and Disposal • Protect environmentally sensitive areas • Manage Waste efficiently • Coordinate response with Chadux and with agencies • Initiate damaged tank assessment survey/repair process
0600	Shift change. Personnel safety and shift briefing. Resources assigned and deployed as specified in approved IAP for DAY 3 operational period.
Ongoing	TF-1 — cleanup, decon and demob of equipment no longer in use. TF-2 — continues recovery & transfer operations at SCA until assured all standing oil is recovered (~1800). Additional recovery continues with sorbent materials and flushing of the SCA. Oily water is sent through an oil-water separator, and waste oil transferred in barge. TF-3 — continues preparation for sediment removal & storage. TF-4 — Staging, Decon, Waste Management Team Wild-1 — Wildlife monitoring and surveillance continue (per ~~ARRT Wildlife Guidelines~~ARRT Wildlife Guidelines). Noise from the response equipment is keeping birds away from response operations; no hazing is necessary.
1800	Shift change. Personnel safety and shift briefing.
	Soil and groundwater sampling plan developed and initiated. IMT planning staff works with ADEC for an approved soil remediation and disposal plan. All temporary storage, remediation and ultimate disposal of petroleum contaminated soils will be done in accordance with the current ADEC *Guidance for Storage, Remediation, and Disposal of Non UST Petroleum Contaminated Soils.*
Day 4 of Response	
DAY 4	Objectives and Strategies for Operational Period Day 4: • Ensure personnel Safety • Maintain Containment and Recovery of spilled fuel • Transfer recovered fuel for Storage and Disposal • Protect environmentally sensitive areas • Manage Waste efficiently • Coordinate response with Chadux and with agencies • Continue damaged tank survey/repair process • Initiate sediment removal to lined pit, soil sampling, and plume delineation per approved remediation plan • Initiate demobilization of response assets no longer in use
0600	Shift change. Personnel safety and shift briefing. Resources assigned and deployed as specified in approved IAP for DAY 4 operational period.

ELAPSED TIME	KEY ACTIVITIES — SCENARIO C. JET A- TANK RUPTURE
Ongoing	TF-1 — cleanup, decon and demob of equipment no longer in use. TF-2 — continues cleanup of the SCA. TF-3 — Chadux and local contractors with heavy machinery and dump trucks begin excavation of contaminated sediment under guidance of assessment team and per the approved remediation plan; soil and debris transferred to lined pit. Assessment team initiates plume delineation, soil sampling to determine areal extent of contaminated sediment for removal. Minimal oil that continues to seep into lined containment trenches during excavation is collected and taken to temporary storage (55-gal. drums, etc.) and ultimately disposed. TF-4 — Staging, Decon, Waste Management Team Wild-1 — Wildlife monitoring and surveillance continue (per ~~ARRT Wildlife Guidelines~~ARRT Wildlife Guidelines).
1600	Shift change. Personnel safety and shift briefing.
Ongoing & to close of spill	All waste materials from the cleanup operations continue to be taken to staging for sorting and consolidation in steel drums, bags, and other appropriate containers in preparation for transport and final disposal per the approved Waste Management Plan. Contaminated soil will be transported to a soil recycling facility, and/or remediated in place per the approved remediation plan. All liquid waste products are recovered; saturated sorbents and debris are collected, quantified, and transported via Crowley barge (or MOU barge of opportunity) to a licensed fuel recycling facility in Anchorage or Seattle for final disposal, as per the approved Waste Disposal Plan. All recovered oily waste is quantified for estimates of recovered liquids (gallons or bbl.) and solids (cu. feet) throughout this process by a combination of methods including mass balance analysis and mechanical equipment recovery estimates (skimming capacity for this scenario is calculated in the following table), sounding the tanks of the storage barge, counting bags of oily debris and sorbents, and determining product volume in facility storage tanks. The amount of oil in sorbents can be estimated by weighting the bags of material, subtracting the weight of the dry sorbent and bag material, and converting to volume based on the density of the fuel.
Response Finished — Day 6 of Response	
	Upon concurrence with ADEC, and once sampling confirms uncontaminated sediment is reached during excavation, the excavated areas will be backfilled with clean sediment obtained from a local contractor. Joint Unified Command agrees that oil recovery is complete. Upon agency signoff and completion of all operations, all resources are demobilized, cleaned and shipped back to their storage location. Personnel are demobilized and de-briefed. Consumables are ordered for restocking and damaged equipment is repaired or replaced. Documentation is collected, maintained and organized. Written reports are prepared and submitted to ADEC within 15 days of final clean up actions.

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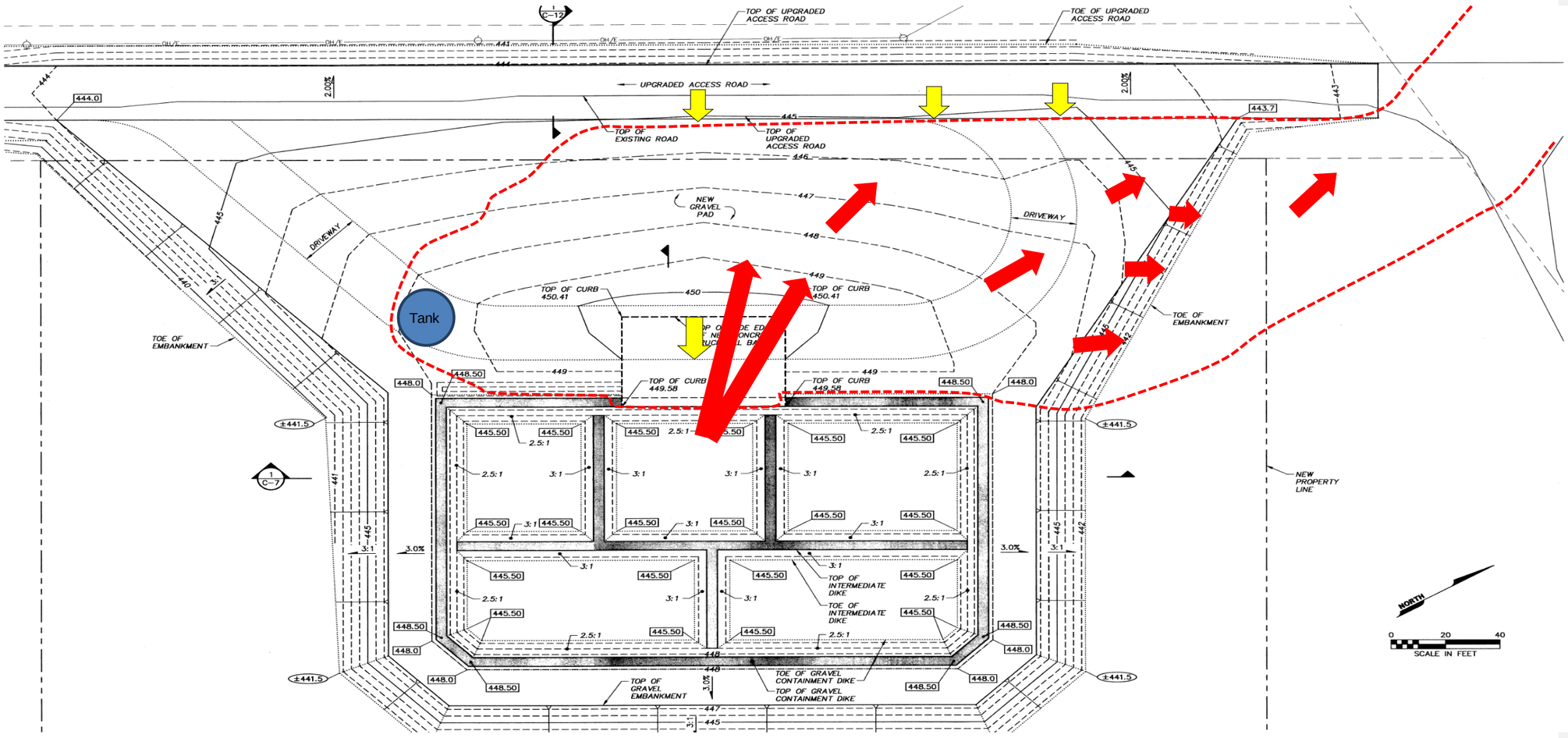
Figure 1-7 Scenario C Spill Trajectory

Wave of oil from tank wall failure flows over dike, across truck rack and over curbing into lined gravel pad area (Red arrows). Oil pooled on sloped truck ramp flows (Yellow arrow) back into SCA; top of upgraded access road blocks oil in front of tank farm (Yellow arrows).



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DAY ONE RESPONSE ACTIVITIES			
UNIFIED COMMAND ACTIVITIES:			
COMMAND	**PLANNING SECTION**	**LOGISTICS SECTION**	**OPERATIONS SECTION**
Incident Commander * Establish Command Post * Establish Goals & Objectives **Liaison** * Complete Agency Notification * Establish Community Notification & identify contacts **Public Affairs** * Prepare initial news release **Safety** * Provide initial Site Safety Plan **Security** * Establish security at Command Post & Spill Site	**Planning Section Chief** * Identify/Prioritize Sensitive areas * Prepare Hazing & Capture Permits * Prepare Wildlife Plan * Prepare Waste Management Plan * Establish short term plan * Document all spill activities	**Logistics Section Chief** * Establish Staging Area * Mobilize response teams * Provide meals and services to crews * Establish Communications Plan * Arrange for heavy equipment to support containment and recovery * Arrange for over-flights and charter of aircraft to support response personnel and equipment	**Operations Section Chief** * Recovery Operations * Disposal Activities

DAY TWO AND THREE RESPONSE ACTIVITIES			
UNIFIED COMMAND ACTIVITIES:			
COMMAND	**PLANNING SECTION**	**LOGISTICS SECTION**	**OPERATIONS SECTION**
Incident Commander * Maintain Command Post * Update daily Goals & Objectives **Liaison** * Maintain Agency updates * Maintain Community information flow **Public Affairs** * Prepare daily news release **Safety** * Revise Site Safety Plan (as needed) **Security** * Maintain security at Command Post & Spill Site	**Planning Section Chief** * Revise Waste Management Plan (as needed) * Revise short term plan (as needed) * Document all Spill Activities	**Logistics Section Chief** * Maintain Staging Area * Maintain response team(s) support * Provide meals and Services * Maintain Communications	**Operations Section Chief** * Recovery Operations * Disposal Activities * Plan for damaged tank and loading rack repair or disposal. Schedule appropriate inspections.

Oil Recovery Capability (Scenario C)

Resource	Time of Operation	Capacity (derated @ 20%)	Total Operating Hours*	Amount Recovered (bbl.)
Task Force 1 — Outside SCA (assume approx. 69,909 gallons (1,665 bbl.) escape SCA)				
Chadux:				
Pumps (1) 3" @ 428 bbl/hr	1000 Day 1 – 0600 Day 2 0700 Day 2 – 0600 Day 3 0700 Day 3 – 2000 Day 3	86 bbl/hr	20 23 13	1,712 1,969 1,113
Manta Ray	1500 Day 1 – 2200 Day 1 0700 Day 2 – 2000 Day 2	43 bbl/hr	7 13	301 559
Manta Ray	1500 Day 1 – 2200 Day 1 0700 Day 2 – 2000 Day 2	43 bbl/hr	7 13	301 559
			Total Capability:	**6,514**

Task Force 2 — SCA (assume approx. 203,732 gals (4,851 bbl.) remain in SCA)				
Facility:				
Elastec Drum TDS-136	0900 Day 1 – 0600 Day 2 0700 Day 2 – 0600 Day 3 0700 Day 3 – 2000 Day 3	211 bbls	21 23 13	4,431 4,853 2,743
Pumps (combined) (1) 3" @ 428 bbl/hr (1) 4" @ 642 bbl/hr	0900 Day 1 – 0600 Day 2 0700 Day 2 – 0600 Day 3 0700 Day 3 – 2000 Day 3	214 bbl/hr	21 23 13	4,494 4,922 2,782
Chadux:				
SkimPak 18000	1600 Day 1 – 0600 Day 2 0600 Day 2 – 0600 Day 3 0600 Day 3 – 2000 Day 3	85 bbl/hr	14 24 14	1,190 2,040 1,190
			Total Capability:	**28,645**

Summary:

- RPS = 77,988 gallons (1,857 bbl.)
- Total volume spilled = 273,641 gallons 6,515 bbl. (safe fill volume): 203,732 gallons (4,851 bbl.) contained in SCA, 1,665 bbl. escapes
- Recovery capability available = 6,514 bbl.; greater than needed to recover 1,665 bbl. from outside SCA; remaining residual oil recovered with sorbent materials and soil excavation.
- Recovery capability available = 28,645 bbl.; greater than needed to recover 4,851 bbl. from SCA; remaining oil collected with sorbent materials and cleaning of the SCA (flushing/rinsing, oil/water separation).
- Note: scenario does not take any product evaporation into account).
- Additional pumps and skimmers available through Chadux.

See also Section 3.6, Response Equipment for details of Crowley's facility response equipment inventory and ~~www.chadux.com~~https:alaskaosro.org/ for Alaska Chadux's response equipment.

1.6.1. Facility Procedures to Stop the Discharge

One of the initial emergency measures to be taken upon the discovery of a spill is to reduce or stop the flow of product as soon as possible (see procedures outlined in ~~Section 1.1, Emergency Action Checklist~~Section 1.1, Emergency Action Checklist). All transfers should be terminated as soon as possible. The Facility's emergency pump shut-off point is illustrated in ~~Figure 1-9~~Figure 1-9 in Section 1.8, Facility Description.

Procedures for stopping the discharge of oil from damaged equipment vary according to the circumstances of the spill (see ~~Section 1.1, Emergency Incident Checklist~~Section 1.1, Emergency Incident Checklist). In the case of a slow leak from a tank or section of piping, temporary patching may be a first response procedure. Patch kits (plugs, bands, cones) are available at the Facility (see Table 3-3 in Section 3.6). Additional methods may include closing valves, rerouting oil to avoid a damaged tank or section of piping and transferring oil to undamaged tanks. Transfers to other tanks can be accomplished using one or more available pumps.

All tank farm cargo systems are equipped with:

- blocking valves at each tank/piping connection
- blocking valves for each line at the truck header
- blocking valves at line/pump connections

Discharge from a leaking pipe or fitting:

- tighten bolts and packing, caulk leaking gaskets/ fittings.
- isolate piping by closing valves, blanking flanges.
- Transfer product to other tanks or containers.
- make temporary repairs using compatible products. A Plug & Patch kit is stored in the response van containing wooden plugs and pipe sleeves.
- use drip pans, buckets or sorbents to catch drips.

Discharge from tanks:

- make temporary repairs using compatible products. A Plug & Patch kit is stored in the response van containing wooden plugs and pipe sleeves
- tighten flange bolts, caulk leaking gaskets / fittings
- transfer product to other tanks
- ensure spilled fuel is contained in the secondary containment area

Overflow during marine barge delivery:

- radio barge to terminate delivery — stop delivery pumps
- close piping and tank valves
- transfer fuel from tank to prevent additional overflow due to expansion

Overflow during tank-to-tank transfer:

- shutdown down transfer pump
- close tanks and piping valves
- transfer fuel from tank to prevent additional overflow due to expansion

Spill at Dispensing Station:

- if dispensing, release the manually operated nozzle.
- use pump controls at the rack to shutdown pump or Emergency shutdown switches.
- close control valve at meter.
- ensure spilled fuel is contained in the secondary containment area.

1.6.2. Fire Prevention and Control

For all scenarios and any spill situation, the spill area is inspected for possible sources of ignition. Electrical sources are shutoff at a location where a disconnect spark is not a hazard (see ~~Figure 1-9~~Figure 1-9 for location of main power shutoff switch). The Facility Manager, or other trained personnel, measure vapor concentrations (lower flammable limits or lower explosive limits) with an explosive vapor meter. If meter readings indicate vapor concentrations greater than the lower flammable limit, personnel would be evacuated from the immediate area, spark sources controlled, and the area cordoned off.

Safety of Personnel and Public:

- Keep unnecessary people away.
- Stay upwind; keep out of low areas.
- Isolate hazard areas and deny entry.
- Wear appropriate breathing apparatus and protective clothing.
- Isolate for ½ mile in all directions of a tank or tank car when involved in a fire.

In Case of Spill or Leak:

- Eliminate ignition sources, close breakers, no flares, smoking, or flames in hazard area. **Sparks from metallic tools, buckets etc. can produce spark and start a fire.**
- Stop leak if you can do so without risk.
- Use water spray to reduce vapors.
- For air monitoring, the Safety Officer or Shipyard Competent Person would be flown in along with the air monitoring instruments. There are no local personnel trained in the use of air monitoring instruments.
- Small spills: Take up with sorbent pads, sand or another nonflammable material
- Large spills: Dike (if on shore) or set containment boom (for water) ahead of spill.
- Large spill consider isolation for 1000' down wind.

Fire Hazard

- A fire may be ignited by heat, sparks, and flames.
- Flammable vapor may spread away from spill.
- Container may explode in heat of fire.
- Hazard of vapor explosion indoors, outdoors, sewers or other confined spaces.

Fire

- Small fires: Use dry chemical, CO_2, water spray.
- Large fires: Use water spray.
- Move containers from fire area if you can do so without risk.
- Stay away from ends of tanks.
- Cool containers that are exposed to the flames with water from the side until well after the fire is out.
- For massive fires in the cargo area, use an unmanned hose holder or a monitor nozzle. If this is impossible, withdraw from the area and let the fire burn.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

- Refer to the *North American Emergency Response Guidebook* in the office for evacuation distance guidelines.

The tank farm is equipped with a minimum of 5 Fire Extinguishers:

- 2 – tank yard
- 1 – Truck rack/pump house
- 1 – Office
- 1 – Garage
- The tank farm also has 1 – 50' section of fire hose with nozzle.

See also ~~Section 1.3 Safety~~Section 1.3 Safety for additional procedures and considerations.

1.6.3. Discharge Tracking

Wind and river currents control the movement of a spill. Visual observation is the first method of tracking used. Oil may be tracked visually from the shoreline and from vessels located downriver of the spill. The facility is located approximately ¼ mile from a Slough of the Yukon River. The tank roofs are approximately 30' above river level offering an unobstructed view of the immediate area. Also, personnel or persons of opportunity located atop nearby hills, high buildings or other elevated areas. The facility response boat would be used for on-scene observations. A tug in attendance would also be available for surveillance; the workboat onboard the tug would also be available. Current information and prevailing winds are noted and monitored. Sequential plots or graphs of the slick size and position are made for consistent tracking.

Aerial reconnaissance may be used to track spill movement using chartered aircraft for aerial observation during daylight hours, weather permitting. The absence of direct sunlight, a high viewing angle and low background brightness aid in visually tracking spill movement. Aerial surveillance and visual tracking may be compromised in situations involving spills in adverse weather conditions. Aircraft resources are listed in Section 3.5, Logistical Support.

Real time spill movement projections can be made using a computerized spill model. NOAA provides computerized trajectory forecasts. A request is directed as necessary to:

Catherine Berg, NOAA Scientific Support Coordinator (907) 428-4143
49000 Army Guard Road, Suite G216
Joint Base Elmendorf-Richardson, AK 99505

Delineation of oiled snow or tundra: The extent of an oil spill on snow or tundra is delineated so that the oil can be found if subsequent snowfall or windblown snow covers the spill. Depending on the size of the spill, a crew of two shall walk the perimeter of the spill and place surveyor stakes with flagging tape in the ground/snow at a pre-determined distance (25-50-100-ft) at the edge of the spill. Use flagging on the stakes to distinguish the contamination boundary. If the wind blows contaminated snow outside the original staked perimeter, make subsequent delineation, as necessary. See Tundra Treatment Guidelines, Delineation and Sampling Area (AM-1) or STAR Manual, Plume Delineation, Land (PD-II-1-1).

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1.6.4. Protection of Environmentally Sensitive Areas

Sensitive shorelines in the vicinity of the Facility include the Yukon River. The river supports a varied population of mammals, fish, and birds that are important to maintaining the traditional subsistence lifestyle of local residents. The nesting and rearing habitat of waterfowl, and shorebirds are of national significance particularly during the ice-free months (May-October). It is extremely unlikely that a spill from the Facility would affect upstream areas.

Sensitive areas of potential oil impact are identified and provided with response priorities upon consultation with ADEC, AK Dept. of Fish and Game (ADF&G), Alaska Dept. of Natural Resources (ADNR), and Dept. of Interior (DOI) through the Unified Command (See Part 3.10). Access permits

are obtained, as necessary. Diversion/redirection booming is utilized to divert oil (except gasoline and av-gas) on shore in the immediate vicinity of the facility (refer to the ~~*STAR Manual*~~*STAR Manual* for description of protection strategies). This action will be used to prevent as much oil as possible from migrating downstream into or towards sensitive areas. Exclusion/diversion booms or sorbent barriers would be installed to divert oil away from downstream sensitive areas ahead of the spill. Sites that are obviously sensitive, i.e., stream mouths, marsh areas, freshwater intakes, fish camps, set net sites, etc., would be avoided for use as collection sites, and would be protected from the effects of the discharged oil and response activities.

Environmental sensitivities are identified through consultation with State, Federal and Local Officials as part of the Unified Command joint staff. The Environmental Unit Leader is responsible for consulting with appropriate agencies to determine primary sensitivities. Section 3.10, Protection of Environmentally Sensitive Areas, summarizes sensitive resources in the Ft. Yukon region.

Drainage protection is used to keep contaminants from migrating off site during above freezing temperatures (spring breakup). Protection can include:

- Plywood, sheet metal or sandbags can be used to block culverts. Blocking material should be placed over the upstream end of the culvert and plastic sheeting placed over the blocking material to decrease the oil/water from leaking through the culvert.
- A snow berm can be built (manually or by front-end loader/bobcat) as a barrier, or
- Containment boom can be deployed around the leading or downgradient edge of the contamination zone to contain and prevent offsite migration of oil/water.

The accumulation of oil/water will need to be monitored and removed using a vacuum truck or portable skimmer with a temporary storage device (55-gallon drum, fast tank). See Tundra Treatment Guidelines, CR-4, CR-5 and CR-6 or STAR Manual- Dikes, Berms and Dams.

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Specific areas along the shoreline have social and cultural importance whether for boating, sport fishing and hunting, or for the opportunity the areas provide for a look into Alaska's past. These areas should be protected from oiling by exclusion booming and should receive care during response operations in order to minimize cleanup and recovery impacts from equipment and labor in the area. The Alaska Department of Natural Resources (ADNR), Office of History and Archaeology, would be contacted for coordinating appropriate protection measures.

~~Note: Also see the Sensitive Areas section of the Interior Alaska Subarea Plan for timing of environmental sensitivities and recommendations for initial response strategies.~~

Section 3.4, Realistic Maximum Response Operating Limitations, contains terrain, climatic, and oceanographic data that would affect the movement of an oil spill and could interfere with protection efforts.

1.6.5. Containment and Control Strategies

Mobilization and response times for equipment are addressed in Section 1.5 Deployment Strategies, and 3.6 Response Equipment. The secondary containment area (SCA) is the primary resource for containment inside the facility (see Section 2.1.8, Description of Secondary Containment Areas for details).

- On the northwest side of the SCA, the roadbed provides a drainage barrier between the facility and a slough connecting the Yukon River to Hospital Lake.
- On the east side of the facility is open land.
- On the west is towards Hospital Lake.
- On the south side of the SCA is towards slough.

Strategies and tactical resources for containment and control include sorbents, sorbent boom, standard boom, onshore dams, culverts, berms and constructed dikes, trenches, pits or berms. Containment structures would be constructed in the path of the spill to control oil released beyond the

secondary containment. Containment and control strategies are discussed in the Dikes, Berms, and Dams; Pits, Trenches, and Slots; and Containment Boom Sections of the ~~*STAR Manual*~~*STAR Manual* (see also Diversion Boom, Exclusion Boom, Deflection Boom).

CONTAINMENT GOALS

- Prevent oil from escaping the immediate area
- Prevent the size of contamination zone from increasing
- Prevent the threat of contamination to environmentally sensitive areas (ESAs)

DISCHARGE TO WATER

- Oil in the water will be contained by containment boom deployed at the site where the spill enters water and downstream to protect ESAs, if applicable. Boom is stored next to the office on a trailer and also in the response conex (see Section 3.6).
- **Extreme caution will be exercised when responding to flammable spills (flashpoint of 80º F or lower)** because of the increase for a potential explosion, fire and injury. Gasoline spilled into water dissipates and evaporates rapidly and represents a minimum threat to the environment as soon as dissipation has occurred; it is possible to increase the dispersion rate by spraying the slick with a fire hose pumping water.
- A response to a gasoline spill is at the discretion of the PIC taking into account the safety of personnel and shore-side populations, vessel stability and protection, size of the spill, threat of fire or explosion and the consequence to shore-side economic, social, and environmentally sensitive areas.
- It may be possible in some circumstances to deflect or divert gasoline away from sensitive areas, or areas where public health will be jeopardized using boom in an exclusion or diversion configuration or encircling the slick with the boom allowing it to drift away from the vessel and/or populated areas — only if safety is not in jeopardy.
- In all gasoline spills, contact the local fire department immediately.

DISCHARGE TO LAND

- Maintain the integrity of the secondary containment. Repair dike to prevent additional spilling of oil.
- Construct berms and trenches in the path of the spill from any available materials (soil, wood, snow, and sorbents) to control product released beyond the secondary containment. Guide spill to a collection area.
- Construct a collection area accessible for recovery in low spots or dig trenches. Keep the contamination area as small as possible. If possible, line recovery areas and trenches with Visqueen or other impermeable material to prevent further soil contamination.

1.6.6. Recovery Strategies

Cleanup crew may use anything from sorbent pads to skimmers and pumps to recover spilled product (see equipment lists in Section 3.6, Response Equipment). Transfer operations using internal piping, pumps, and portable pumps and hoses can be used to move accumulated oil from a damaged tank, berm, or trench to other tanks.

Floating oil and water can be recovered from any pooled area including natural depressions, barriers, constructed trenches, or containment dikes using skimmers, vacuum truck and sorbent material to recover spilled product (see equipment list, Table 3-7, and Chadux Equipment Summary, https://alaskaosro.org/). The effective reach of a vacuum truck is approximately 200-feet. A skimmer will require a power pack, a pump with suction, discharge hose with fittings and a container for recovered product: see Tundra Treatment Guidelines, CR-6.

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Portable pumps compatible with all facility hoses and fuels are readily available for recovery from sumps or containment. Portable pumps and hoses provide a transportable platform for recovery

operations either at the shoreline or at the facility. Skimming systems are used for on-water recovery. Oil and water, collected in shore side tanks, from on-water operations can be periodically off-loaded to the barge via pump systems. Depending on ambient temperature, the skimmer and accessories may need to be demobilized each evening and stored in a heated structure to ensure the equipment remains operational for multiple day's use.

Once the oil is contained, personnel perform the following recovery operations:

- On water oil skimmer(s) coupled by hose will be deployed to skim and pump the contained oil water mixture into available temporary storage. The skimmer is in the response conex next to the office.
- The containment boom will be shortened to increase the concentration of the discharged product until absorbent materials can adequately complete the recovery.
- Oil inside the SCA will be transferred to temporary storage by means of a transfer pump or skimmer. Lines could be pigged and then used to transfer oil directly to a barge through the marine header.
- Pooled oil will be cleaned up with non-sparking scoops and absorbent pads, mops, and wringers.
- Stockpile contaminated soil, sediments, or debris in a lined pit for future treatment or disposal.

Factors that may impact the efficiency of the oil recovery equipment include (see discussion in Section 3.4, Realistic Maximum Response Operating Limitations):

- Response Time — Equipment is stored on site; response time will be immediate.
- River Conditions — Special conditions that could increase the risk of an accidental discharge at the Crowley bulk facility are wind, river condition, current, and darkness. Fuel transfers are conducted only at the discretion of the vessel Captain and Facility Supervisor when wind, speed or sea conditions pose an increased risk. River current is minimal at the barge-unloading site but can reach approximately 5 knots in that area of the river.
- Efficiency — Efficiency will vary with weather conditions but the manufacturer's recovery rate of 30 gpm (44 bph). (See Table 3-3 in Section 3.6, Response Equipment; Elastec Skimmer).
- Oil Thickness — The Facility handles only non-persistent products. Products will have a thin level of thickness.
- Oil Encounter Rate — Encounter rate would vary depending on spill situation.
- Hours of Operation — Crews would be divided into shifts and would work continuously until recovery operations are complete.
- Downtime — Approximately 10% loss due to mechanical breakdowns.
- Off Loading to Temporary Storage — Oil recovered will be pumped into any available intact tank in the facility with available storage space, into an available barge (on site or brought to the site), and temporary storage assets brought by Chadux.
- Debris — Debris would only be a minimal problem and could be cleaned and stored if contaminated or burned onsite in the Smart Ash burner.
- Ice — Ice conditions could be a factor in cleanup operations during freeze-up when freezing water would make deployment of equipment difficult. During the winter months the facility has no marine transfers of fuel. By spring the tanks are nearly empty and pose a minimal threat of an accidental discharge

1.6.7. Damaged Tank Transfer and Storage

Pumps and piping are in place at the Facility for transfer of product to, from and between storage tanks. In the event of a major tank failure, the remaining contents inside the tank may be transferred, if possible, to an available intact tank (see Figure 1-13 for tank locations).

Facility personnel are available to assist with an emergency transfer of oil, as well as the use of activated PRAC personnel. This action would be taken to reduce the amount of product spilled onto the ground or on water. One or more dedicated 3" or 4" pumps can be utilized for this purpose (at pump rates of approx. 300 gpm –450 gpm (7–10 bbl/min) each). Pumps and hoses are listed in the equipment tables included in Section 3.6, Response Equipment. All pumps, hoses, and fittings to be used are designed and suitable for transfer of product; fitting connections are compatible.

The procedures for transferring fuel from tank to tank are:

1. Connect transfer hose to the appropriate cargo line header then to the suction side of the transfer pump.
2. Connect a transfer hose from the discharge side of the transfer pump to the receiving tank cargo line.
3. Refer to transfer procedures as described in Section 2.1.6, Transfer Procedures.

Pumps, hoses and fittings for transferring oil are compatible with non-persistent oils. Transfer will occur within the piping system of the Facility, thus problems occurring due to compatibility of connections or fittings does not apply.

1.6.8. Recovered Oil Transfer and Storage

The Facility's dedicated transfer and storage equipment is listed in Table 1-1 (see also Section 3.6). All pumps, hoses, and fittings to be used are designed and suitable for transfer of recovered product. Fitting connections are compatible.

Recovered product may be transferred from the collection site, possibly in drums, either by a shuttle vessel or by ATV if the affected area is along the shore.

The recovered product will be pumped from the portable container (i.e., 55-gallon drum) into a larger temporary storage container such as land-based tankage (Chadux storage asset) or a barge's tank. Other Crowley fuel barges operating in the region would be called upon for additional storage, as required, and can respond in 0–48 hours.

Any temporary storage tank/transfer site will be modified (e.g., berms constructed, liner deployed under tanks or drums), as required to ensure transfer operations do not result in contamination of the site.

An estimate will be made of the percentage of oil content of collected oily water mixture by allowing it to settle (see ~~Section 1.6.9~~Section 1.6.9). Separation and decanting of oil is performed, and estimates of recovered oil and waste volumes would be obtained for recovered oily liquids and solids.

In the event that recovered oil or oily water needs to be shipped to another site for disposal or storage, a Crowley tank barge will be dispatched to the facility. If a Crowley barge is not available, or a barge is needed sooner, Crowley Fuels may charter a barge from another barge operator in the region to transport the recovered oil to an approved facility for processing.

Refer also to Section B, Part III of the ~~*STAR Manual*~~*STAR Manual* for a description of Recovered Oil Storage Tactics.

1.6.9. Temporary Storage and Ultimate Disposal

RPS planning volumes, temporary storage resources, and storage volumes are listed in ~~Table 1-2~~Table 1-2.

A waste disposal plan is developed to provide the necessary logistical and procedural information for the transfer of wastes to disposal facilities through the Unified Command, including methods for gauging the amount of recovered oil and identifying and describing ultimate disposal methods. Permits may be required for temporary storage sites from some landowner/agencies and are obtained, as necessary (reference the Alaska Spill Response Permit Tool at http://dec.alaska.gov/spar/ppr/permits/index.htm). The Planning Section Chief is responsible for

preparing applications for access approvals and permits. In all cases, ultimate disposal of oily materials will follow ADEC guidelines and will be approved by ADEC.

In general, oily debris and used sorbents would be stored in leak-proof containers, which could include 55 gallon drums. Drums would be located in a temporary storage area constructed with a small curb or berm and covered with plastic to prevent secondary releases. All recovered oil debris and oily sorbents would be either incinerated or transferred to a lined sea container and placed on board a Crowley barge. They are then transported to Seattle for proper disposal. For small quantities of oil, all solid wastes will be burned on site with Smart Ash™ incinerators. The Facility Manager replaces equipment and materials that have been expended during the cleanup.

All oily liquids and slops should be separated and decanted and/or processed through a Water Scrubber or an oil/water separator. Emergency discharge of processed water would be requested of ADEC, provided effluents met ADEC criteria. All recovered oil, oily water, and oily wastes destined for final disposal must be properly manifested and would probably be transported on board a Crowley barge to Seattle for disposal at an appropriate facility.

Additional information on oily waste disposal and handling are included in Section 3.1.7 Disposal of Oily Wastes. Further information is available in *ADEC Guidelines for the Disposal of Non-UST Contaminated Soil* and in *Guidance for Storage, Remediation, and Disposal of Oily Materials*. The ADEC Transport, Treatment & Disposal Form can be downloaded at: http://dec.alaska.gov/spar/csp/guidance/soil-tranpt-trt-form.pdf

1.6.10. Wildlife Protection

Fort Yukon lies on the north bank of the Yukon Flats area and is situated within the Yukon Flats National Wildlife Refuge (see Figure 3-4). Information on environmentally sensitive habitats, species, and seasonal variations is discussed in Section 3.10, Protection of Environmentally Sensitive Areas, the ARRT Wildlife Protection Guidelines and the ~~Sensitive Areas section of the Alaska Interior ACP~~Alaska Sensitive Area Compendium of the Arctic & Western Alaska Area Contingency Plan (see: https: dec.alaska/gov/spar/ppr/contingency-plans/response-plans/tools/). For all scenarios, attempts should be made to keep waterfowl and migratory birds away from oiled areas using generally accepted methods such as hazing or use of exclusion booms to keep a moving slick away from nesting or feeding wildlife. Hazing equipment (see Section 3.10.4, Protection of Wildlife) generally includes noise-making devices. ~~Personnel at the Facility have been trained in wildlife hazing techniques.~~ Oiled debris and carcasses would be removed on water and land to protect wildlife that may come in contact with or ingest the debris.

~~Addresses and contacts for permits are a provided in Section 1.2, Reporting and Notification. The U.S. Fish and Wildlife Service (USFWS) is the contact agency for issue and rehabilitation of migratory birds, polar bears, and whales. The National Marine Fisheries Service (NMFS) is the contact agency for all other marine mammals. Table 3-4 lists permits required for the collection, handling, or hazing of wildlife; permits are acquired through the Unified Command. The "Oil Spill Response Checklist: Wildlife Hazing", found within ARRT Wildlife Protection Guidelines will need to be filled out and submitted for agency approval through the FOSC before beginning active hazing activities. Passive hazing activities (use of mylar tape, scare balloons, etc.) do not require a permit.~~

The U.S. Fish and Wildlife Service (USFWS) is the contact agency for issue and rehabilitation of migratory birds, seabirds, walrus, and polar bears. The National Marine Fisheries Service (NMFS) is the contact agency for marine mammals. The Wildlife Protection Guidelines lists permits required for the collection, handling, or hazing of wildlife; permits are approved through the Unified Command.

Any dead, oiled wildlife collected, packaged, labeled and stored according to the Carcass Collection and Documentation, Section 3640.2.1.1, of the Wildlife Guidelines pending approval for final disposal. Records will be kept using oiled wildlife data forms. Disposal of dead animals

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will be carried out using procedures and disposal locations approved by the applicable wildlife trustee agency.

Crowley Fuels will not be responsible for volunteer coordination, scheduling or training. In the event that wildlife rescue and rehabilitation be necessary, it would be performed in accordance with the ARRT Wildlife Protection Guidelines. The Crowley Fuels Environmental Unit Leader may direct some hazing and carcass collection activities upon approval of the Incident Command but would rely primarily on the services provided through the IBR and/or ASLC.

~~Any dead, oiled wildlife collected will be placed in plastic bags, labeled, and stored frozen pending approval for final disposal. Records will be kept using oiled wildlife data forms. Disposal of dead animals will be carried out using procedures and disposal locations approved by ADF&G.~~

The ~~Crowley Fuels~~ Environmental Unit Leader is responsible for consulting with appropriate agencies to determine primary sensitivities and priorities.

1.6.11. Shoreline Assessment and Cleanup

Explanations of specific methods for protection of sensitive areas, including shore side and passive recovery are presented in the STAR Manual, Section B-III-8 and B-III-9 and in the GRS maps in the Subarea Contingency Plan.

When spilled oil impacts shoreline habitat, trained responders systematically survey affected areas to determine the appropriate methods to use in the spill response. They use a system known as SCAT, or Shoreline Cleanup and Assessment Techniques Team. NOAA's Shoreline Assessment Manual describes SCAT team members, SCAT roles and responsibilities, the methods and process for conducting shoreline assessment, and using the results to make cleanup decisions at oil spills. The SCAT teams will document the extent and degree of shoreline oiling, recommend cleanup methods, evaluate the effectiveness of cleanup methods, develop cleanup endpoints and guidelines to determine when cleanup activities should be terminated. For more information and details regarding the SCAT, the NOAA Shoreline Assessment Manual and job aid are available at: http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/shoreline-assessment-manual.html

Shoreline cleanup options that can be considered in the event of a discharge or to support the response scenarios include:

Removal

- Wash and recover- a variety of washing or flushing techniques use to move oil from the shore zone to a location for collection, from where it can be removed and disposed. Response crews would establish a pumping and containment system whereby seawater would be used to flood and wash oil off the shoreline. Oil that is successfully washed off is captured inside of containment boom, pre-deployed parallel to the shoreline, and recovered with sorbents or a skimmer as appropriate.
- Manual Recovery- response crews would use sorbent pads and hand tools with buckets or bags to manually recover oil by wiping the contaminated areas and/or collecting the oiled material.
- Mechanical pickup- machinery is deployed to remove the oil or oiled materials (sediments, debris, vegetation, etc.) from the shore zone to a location where it can be disposed.

Treatment in Place

- Tilling or aeration- mixing of sediments in place or the exposure of subsurface oil can be carried out by most types of earth moving equipment or by mechanical rakes/tines.
- Surface wash or sediment reworking- oiled material in the zone above the normal limit of wave action is moved downslope to an area where waves can abrade the sediments and remove the oil; or stained or oil-coated sediments can be mechanically pushed into the surf zone to accelerate wave abrasion or to accelerate fine-particle aggregation.
- Burning- oiled materials and debris are collected and burned in place (requires permits and approval from the SOSC, FOSC and other regulating agencies within the Unified Command)

If cultural materials (fossils, archaeological or historical artifacts, etc.) are discovered during cleanup operations, the activities should be immediately stopped and the site should not be further disturbed or altered, nor the artifacts touched or removed. The ADNR/Office of History/Archeology would be contacted immediately. Telephone numbers and names of specific agency contacts are provided in Part 1, Section 2 Reporting and Notification.

Cleanup efforts continue until the Crowley Fuels IC and the representatives on the Unified Command agree that cleanup has been completed. As the cleanup operations are completed, equipment, supplies and personnel are released for decontamination and demobilization. Response inventories are checked, and actions taken to re-stock supplies and equipment.

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1.7. NON-MECHANICAL RESPONSE OPTIONS

Crowley Fuels does not intend to use any non-mechanical response options.

OIL SPILL CONTROL CHEMICALS

The term "oil spill control chemical" generally includes chemical dispersants, surface collectants or herders, and various types of detergents. Crowley Fuels does not intend to use any oil discharge control chemicals. Should a situation arise in which oil spill chemicals were to be used, the application of these chemicals will be made under the direction of the IMT Planning Section Chief with concurrence from the State and Federal On-Scene Coordinators.

IN-SITU BURNING

Crowley Fuels does not maintain equipment to support *in situ* burning as a response option and does not intend to use burning as a spill response option.

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1.8. FACILITY DESCRIPTION

A description of the Facility is provided in Section 3.1 of this ODPCP, Facility Description and Operational Overview.

A location map is included as ~~Figure 1~~Figure 1 in the Introduction.

Facility evacuation diagrams with fire extinguisher locations (Figure 1-4 and Figure 1-5) are included in ~~Section 1.3 Safety~~Section 1.3 Safety. Figure 1-6 shows the wide area evacuation zone.

1.8.1. Facility Diagrams

~~Figure 1-7.~~Figure 1-7. Location of Tank Farm

~~Figure 1-8~~Figure 1-8. Facility Layout, Cathodic Protection Locations

~~Figure 1-9~~Figure 1-9. Tank Farm Site Plan (emergency shutoff location)

~~Figure 1-10~~Figure 1-10. Tank Farm Secondary Containment Area and Drainage

Figure 1-11. Tank Farm Layout and Piping Plan (location of first valve)

~~Figure 1-12~~Figure 1-12. Tank Farm Liner Detail

~~Figure 1-13~~Figure 1-13. Cathodic Protection Detail

~~Figure 1-14~~Figure 1-14. Marine Header and Containment Detail

~~Figure 1-15~~Figure 1-15. EPA Planning Distance

Figure 1-7 Location of Tank Farm

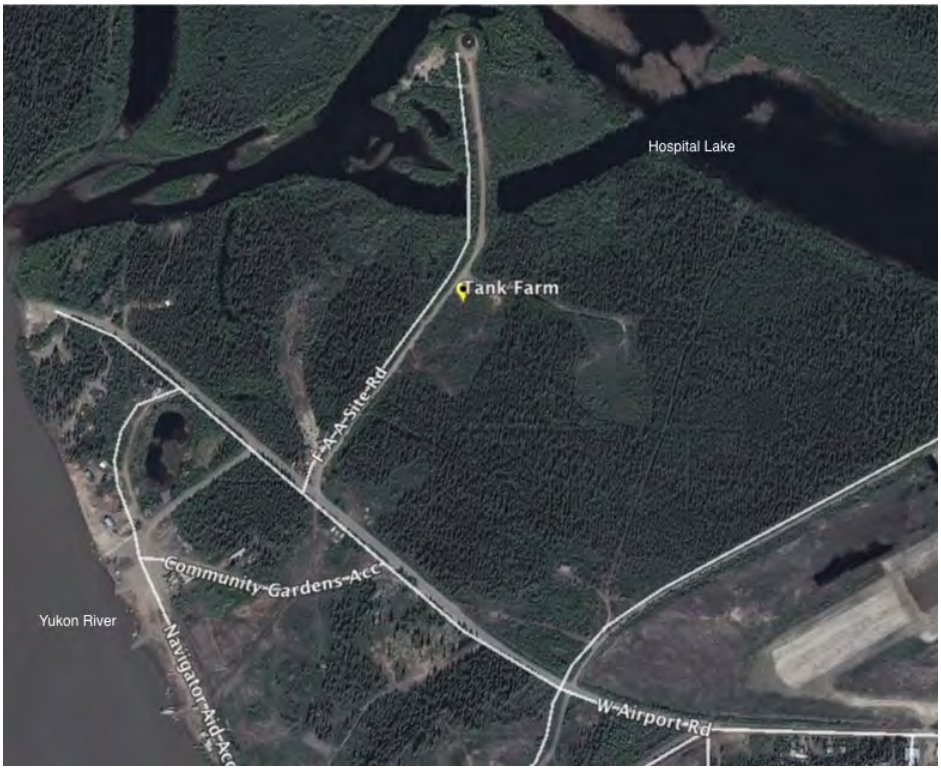


Figure 1-8 Facility Layout, Cathodic Protection Locations

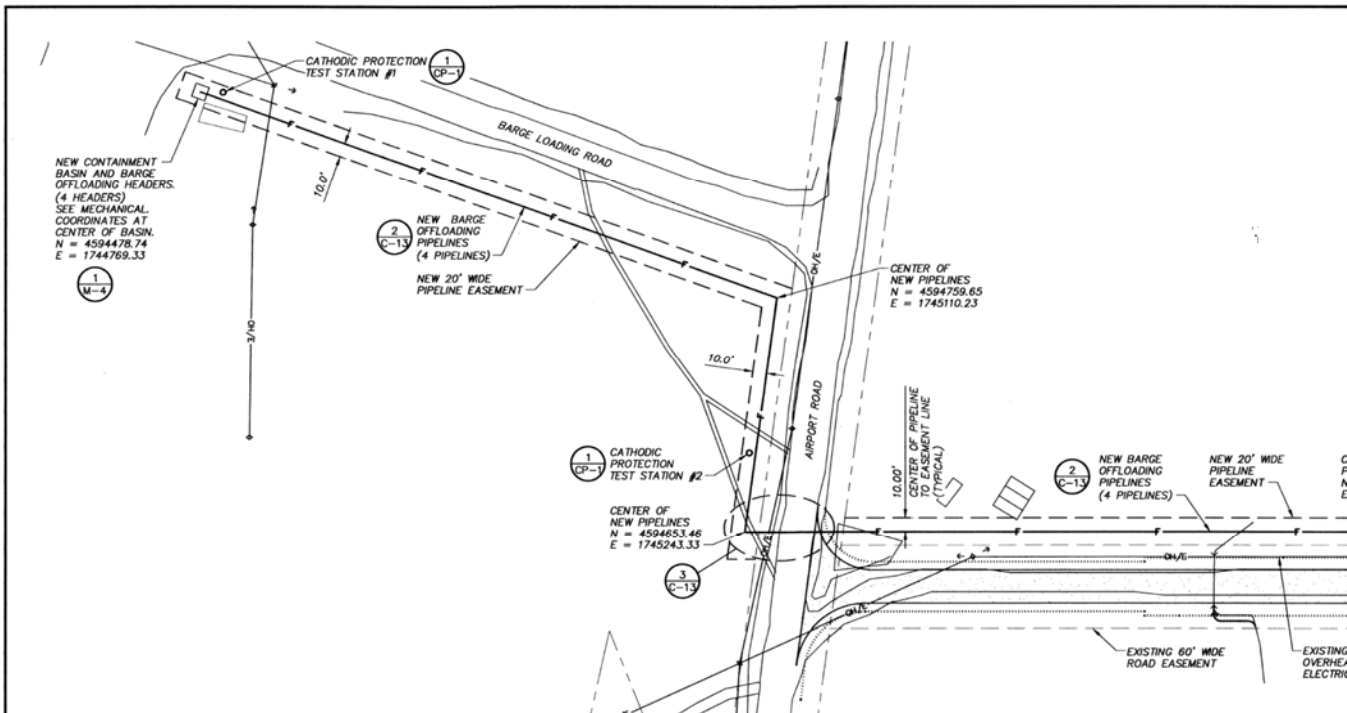


Figure 1-9 Tank Farm Site Plan

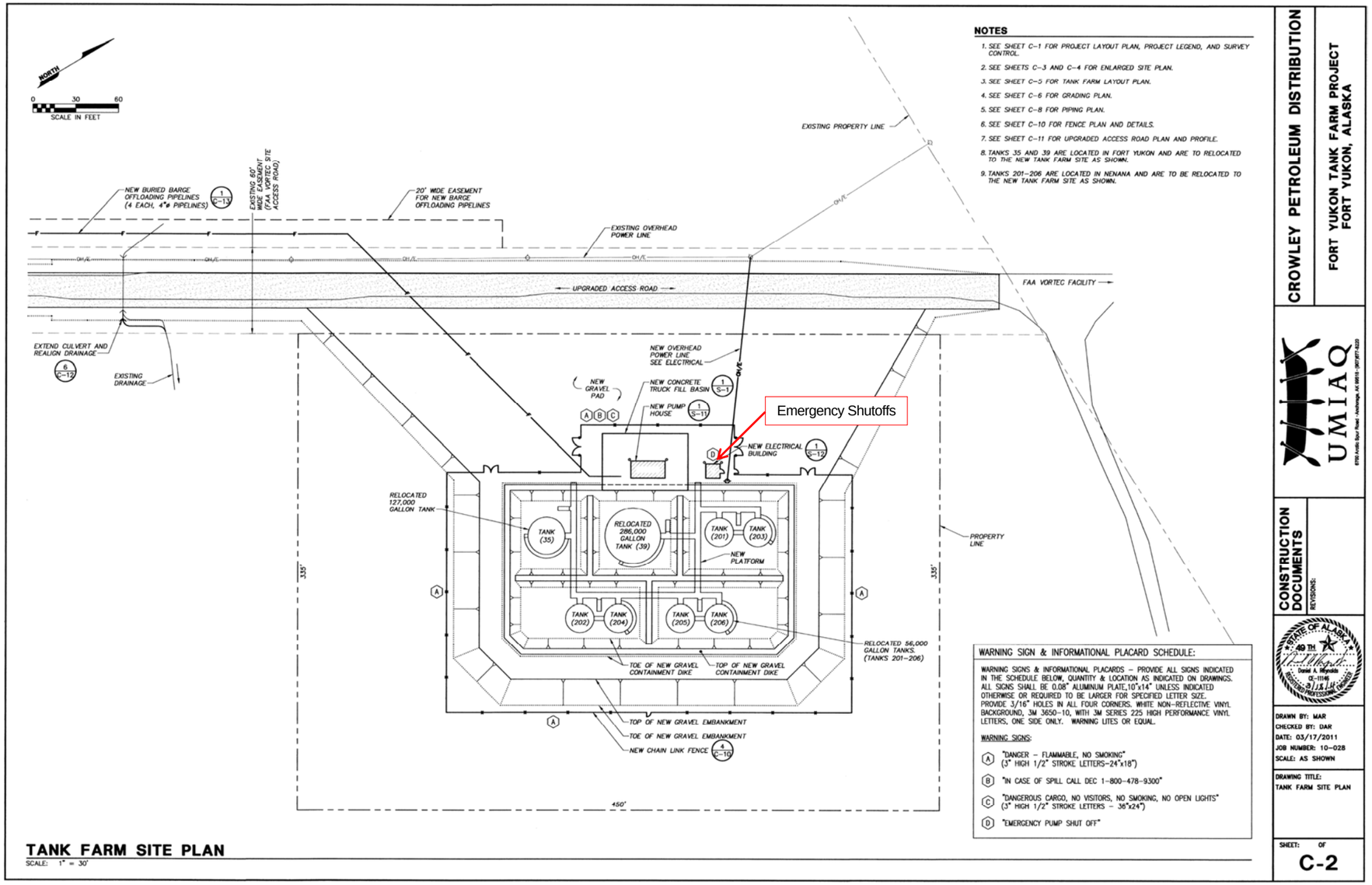


Figure 1-10 Tank Farm Secondary Containment Area and Drainage

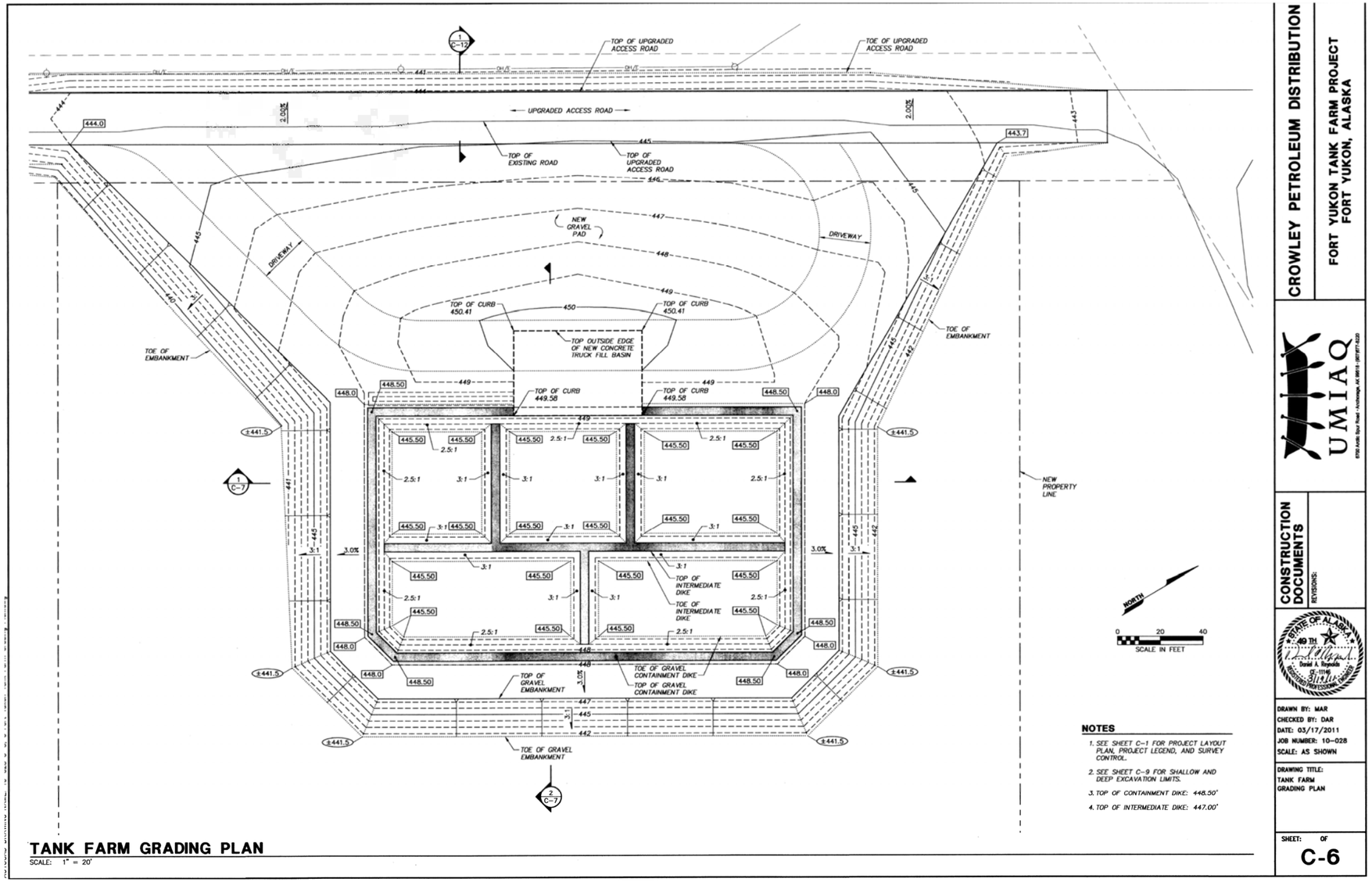
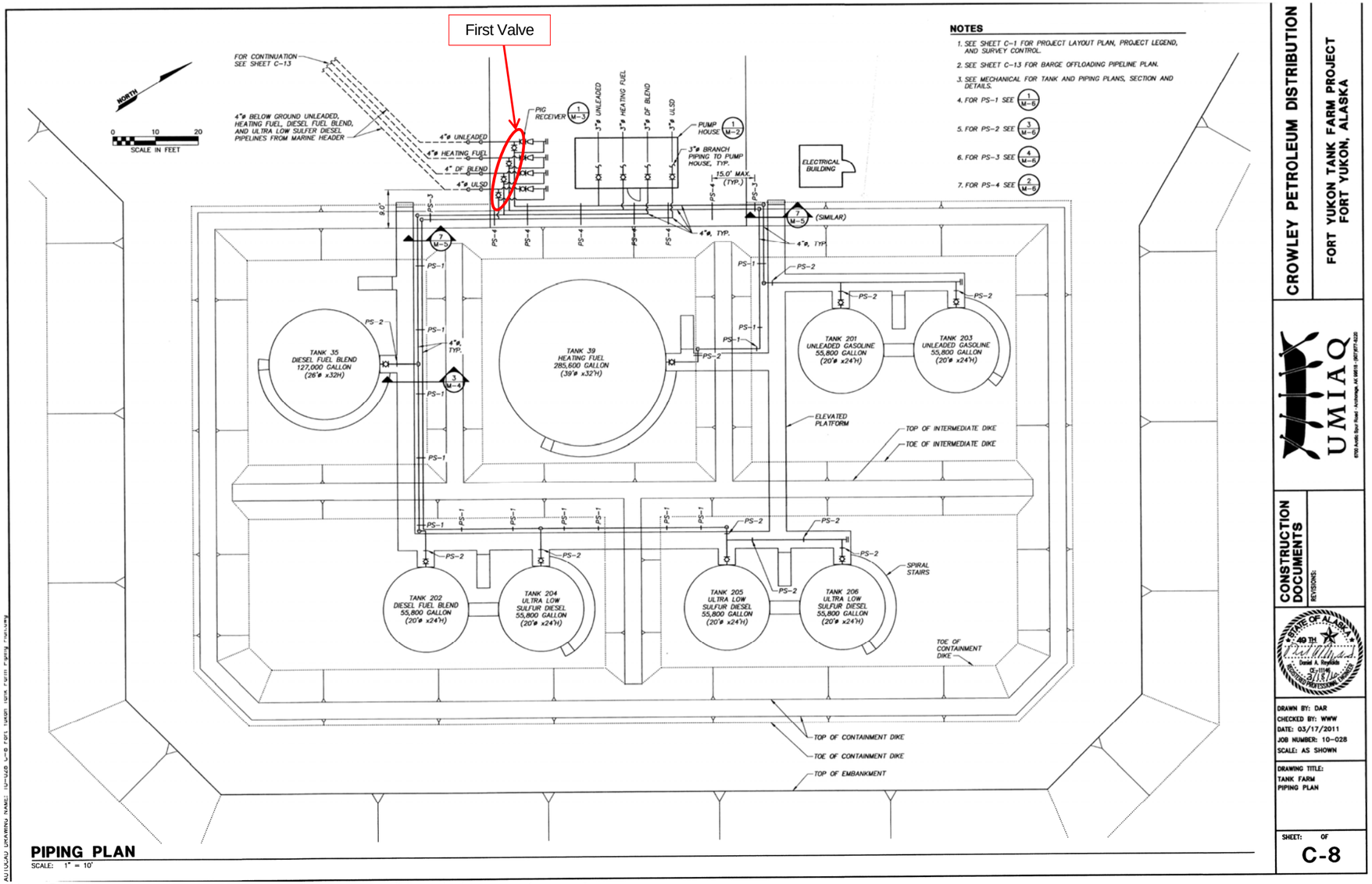


Figure 1-11 Tank Farm Layout and Piping Plan



[Note: During barge-facility fuel transfers, emergency shut-down will be at the barge transfer pump.]

Figure 1-12 Tank Farm Leak Detection and Liner Detail

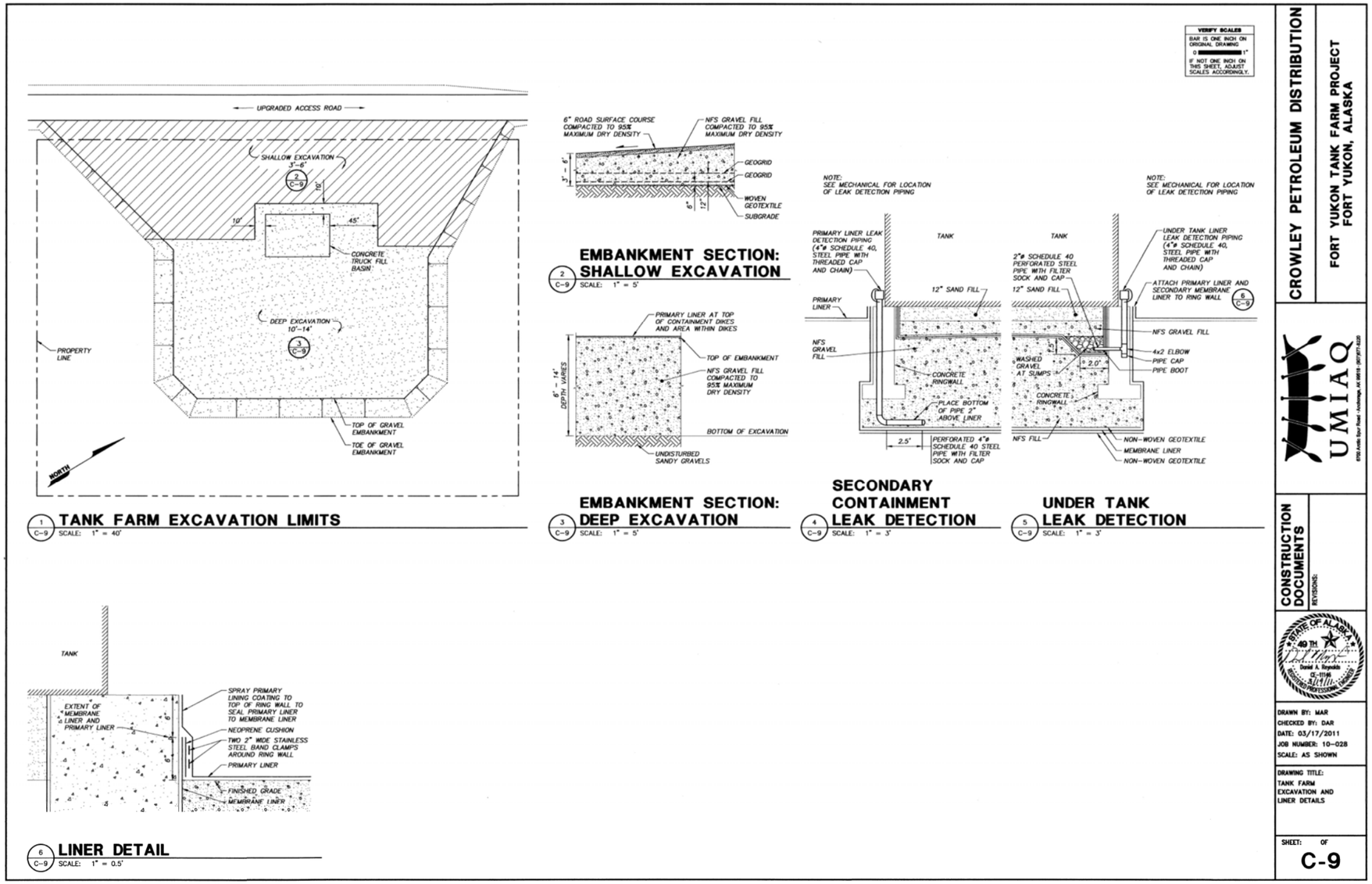


Figure 1-13 Cathodic Protection Detail

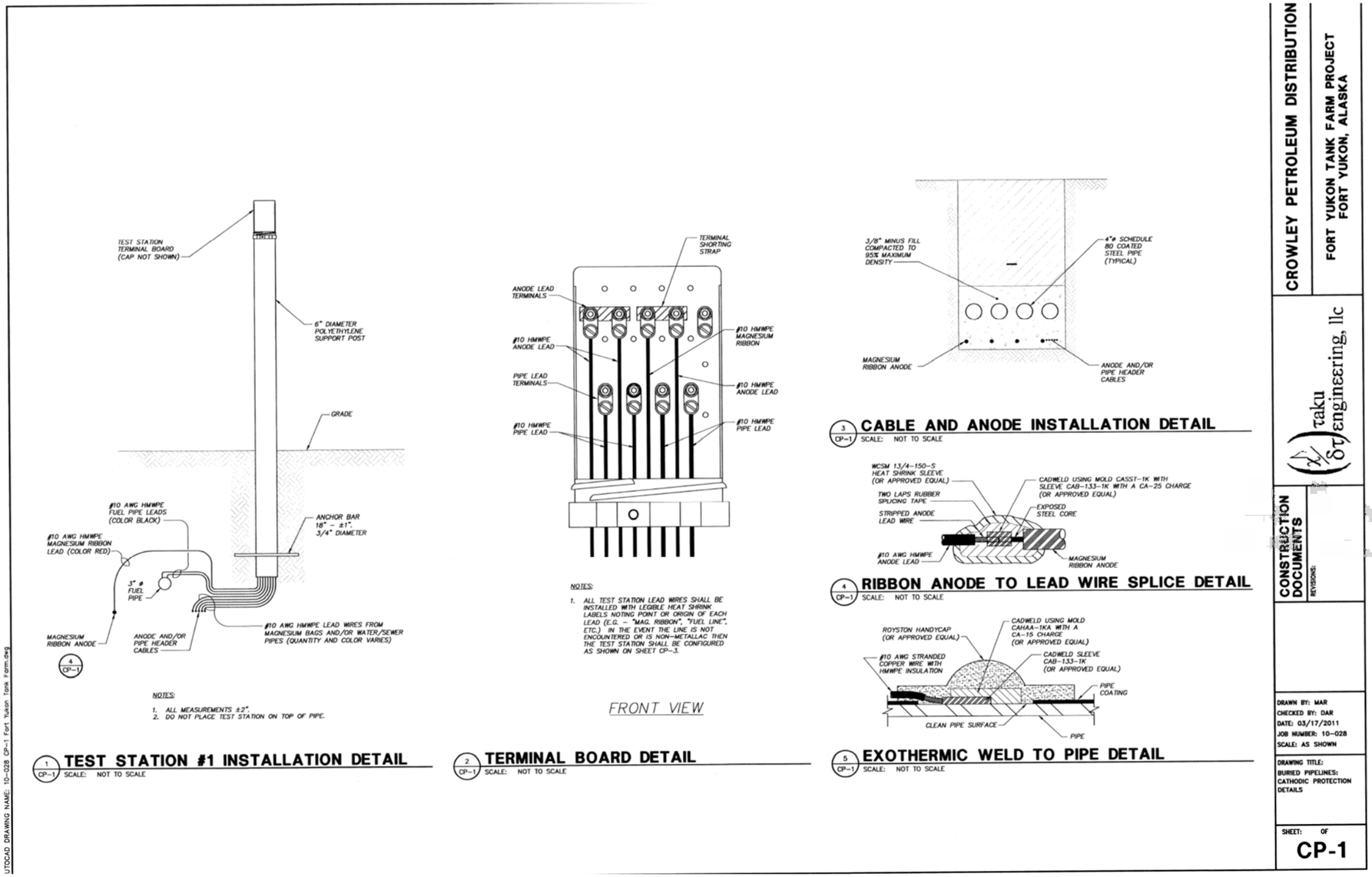


Figure 1-14 Marine Header and Containment Detail

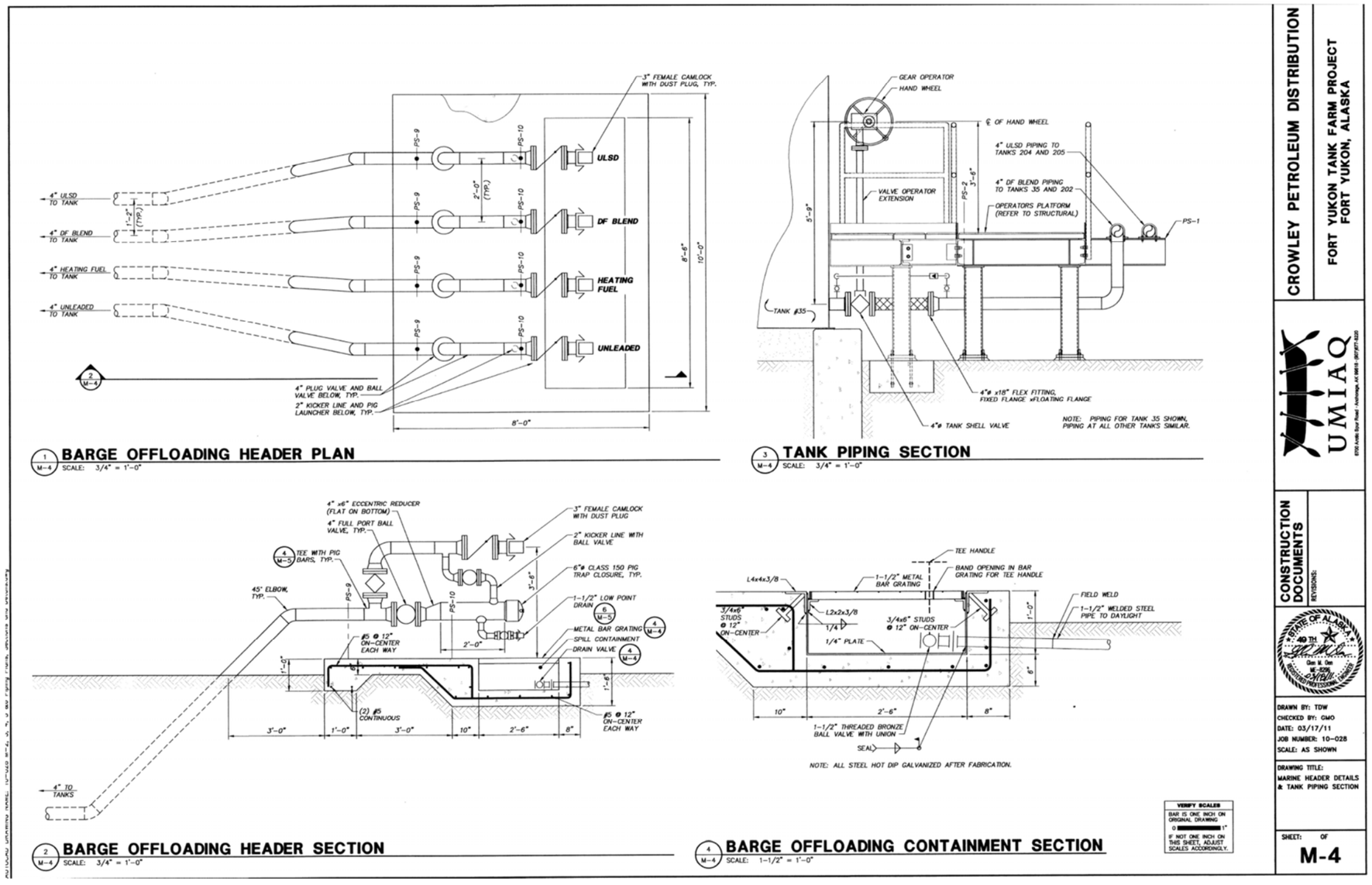
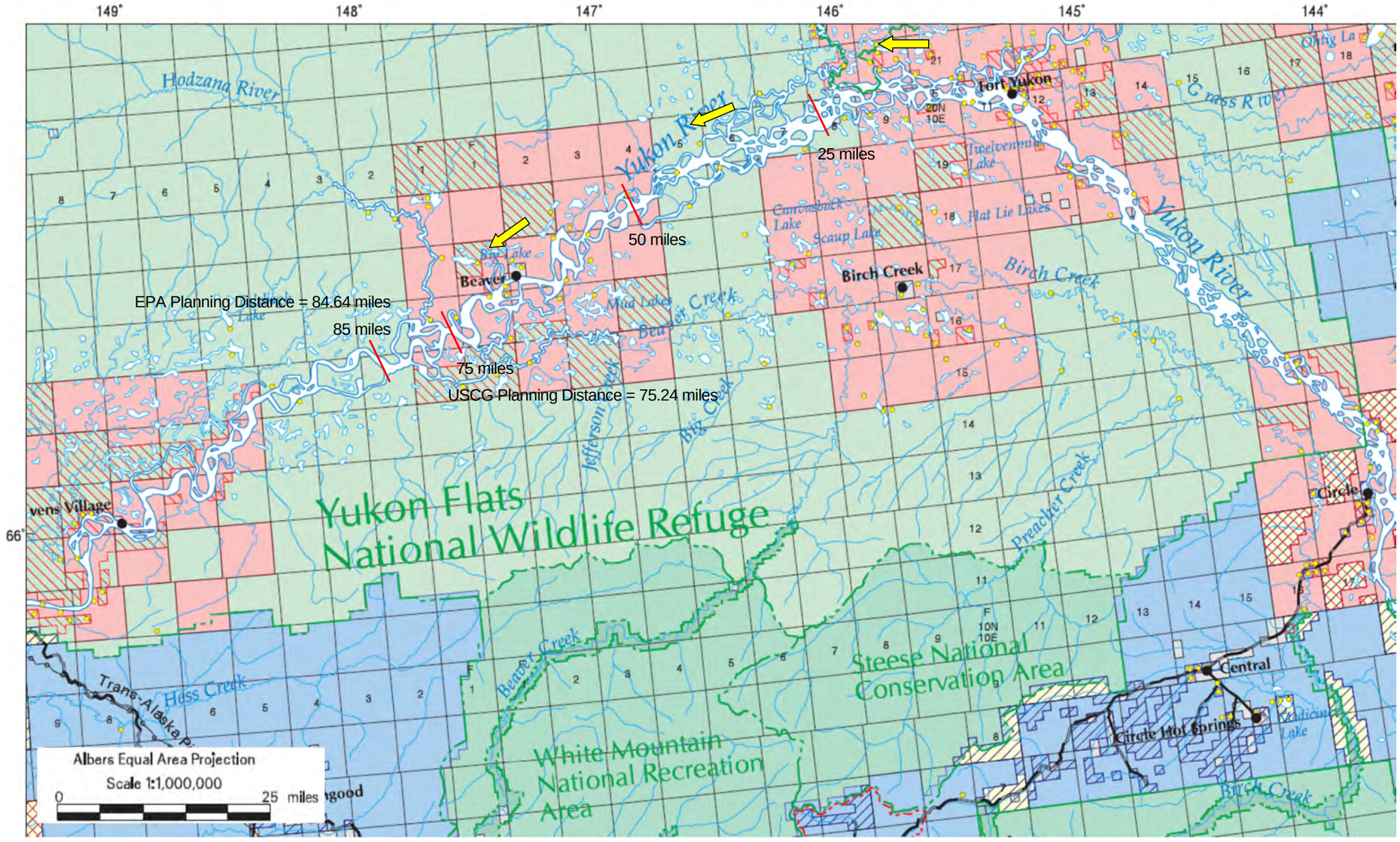


Figure 1-15 EPA Planning Distance



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PART 2 — PREVENTION PLAN

2.1. POLLUTION PREVENTION AND MAINTENANCE

The prevention programs in place are described in this part. The subsections below describe the Crowley Fuels programs for ODPCP revision and maintenance, spill prevention training, substance abuse, medical monitoring, security, product transfer, storage tank inspection and maintenance, secondary containment, and facility piping corrosion control.

This section outlines the pollution prevention measures in place at the Ft. Yukon Facility.

Article 1 Oil Pollution Prevention Requirement	Facility ODPCP Applicable Section
18 AAC 75.007 – General oil pollution prevention requirements	See Section: 2.1
18 AAC 75.007(e) – Substance abuse and medical monitoring program	See Sections: 2.1.3 & 2.1.4
18 AAC 75.007(f) – Security and surveillance programs	See Section: 2.1.5
18 AAC 75.020 – Oil discharge prevention training and recordkeeping	See Sections: 2.1.2 & 3.9
18 AAC 75.025 – Transfer requirements	See Sections: 2.1.6; 3.1.2 & 3.1.5
18 AAC 75.027 – Requirements for laden tank vessels	Not applicable
18 AAC 75.037 – Requirements for laden oil barges	Not applicable
18 AAC 75.045 – Operating requirements for exploration and production facilities	Not applicable
18 AAC 75.047 – Requirements for flow lines at production facilities	Not applicable
18 AAC 75.055 – Leak detection, monitoring, and operating requirements for crude oil transmission pipelines	Not applicable
18 AAC 75.065 – Field-constructed aboveground oil storage tank requirements	See Sections: 2.1.7 & 3.1
18 AAC 75.066 – Shop-fabricated aboveground oil storage tanks	Not applicable
18 AAC 75.075 – Secondary containment requirements for aboveground oil storage tanks	See Section 2.1.8
18 AAC 75.080 – Requirements for facility oil piping	See Section: 2.1.9
18 AAC 75.085 – Requirements for railroad tank cars and operations by rail	Not applicable

To maintain an aggressive spill prevention program, Crowley Fuels has prepared the following compliance schedule (Table 2-1) and has coordinated it with activities at other Crowley Fuels Facilities.

Table 2-1 Maintenance, Inspection and Compliance Schedule

EQUIPMENT	FREQUENCY	ACTION						
Out-of-Service (internal) Storage Tank Inspection (API 653 or RP 12R1)	10 years or as set by previous inspection.	**Tank**	**Int. Cptd**	**Next Int. Due**	**Schd**	**Ext. Cptd**	**Next Ext. Due (5 yr)**	**Schd**
In-Service (external) Storage Tank Inspection (API 653)	5 yrs. or as set by previous inspection. Visual monthly	035	2021 ~~12~~	2041 ~~22~~	2041~~22~~	2021 ~~17~~	2026 ~~22~~	2026 ~~2~~
		039	2012	2022	2023~~2~~	2017	2022	2023~~2~~
		201	2021~~12~~	2031~~22~~	2031~~22~~	2021~~17~~	2026~~2~~	2026~~2~~
		202	2012	2022	2022	2017	2022	2022
		203	2012	2022	2022	2017	2022	2022
		204	2021~~12~~	2041~~22~~	2041~~22~~	2021~~17~~	2026~~22~~	2026~~2~~
		205	2012	2022	2022	2017	2022	2022
		206	2020~~12~~	2030~~22~~	2030~~22~~	2020~~17~~	2025~~2~~	2025~~2~~
High Level Monitoring System	Before each transfer operation, whichever is less frequent (per 18 ACC 75.065(l)).	High level alarm reset to low point prior to commencing transfer. If alarm is then triggered, the alarm set point is reset to 90% of safe fill height. Alarm system is checking monthly.						
Leak Detection	Visual Daily							
Secondary Containment	Weekly and during routine operations							
Piping and Hoses (buried or insulated/ API RP 1110, API 570, NACE RP 0169-2002 and 33 CFR 156.170)	Annual; Every 3 years In accordance with API 570 or as prescribed by prior inspection	Pressure Test (piping is to be pneumatically or hydrostatically tested) CP System Testing (completed in June 2019); next due in 2020. API 570 Inspection (completed in August 2017); The next formal API-570 inspection for the tank farm and truck rack piping in containment (Class 3) due no later than August 2026. The next formal API-570 inspection for the cargo piping from the marine header to the tank farm (Class 1) due no later than August 2022. In-service visual inspection						
Tanks, piping, and other equipment	Visual Daily and logged monthly	Observed daily for general condition and signs of leakage						
Containment drainage	When drained	Note if sheen present						
Tank shells, roofs, structure, and associated piping	Annual	Detailed visual inspection						
Pipelines, valves, joints, flanges, pipe supports, pumps, and hoses	Annual Visual during routine operations, and at least monthly	Detailed visual inspection						
Response equipment	Monthly	Detailed visual inspection, startup mechanical equipment						

RECORD KEEPING

Records of training, inspections, tests, maintenance, and repairs shall be prepared and kept for five years unless otherwise specified. All records will be in retrievable form and are maintained at the Facility or with the Operations Integrity Department in Anchorage and will be provided to the ADEC upon request.

2.1.1. Contingency Plan Maintenance

Crowley Fuels will review this response plan annually. If a significant change is made to any component of the equipment covered under this ODPCP (design, operations, procedures, or response capability), the ADEC will be notified in writing within 24 hours and provided with a schedule for return to operational status. The USCG will be notified in writing within 30 days, and the EPA within 60 days. Plan review and revision procedures will be followed to meet the requirements contained in 18 AAC 75.475 (ADEC), 33 CFR 154.1065 (USCG), and 40 CFR 112.20(d)(1) (EPA), including any post-discharge review of the plan to evaluate and validate its effectiveness.

In accordance with 33 CFR 154.1065, Crowley Fuels will review the Federal requirements of this Facility Response Plan annually within one month of the anniversary date of USCG/EPA approval of the plan and shall submit, with a cover letter containing a detailed listing of all revisions, any revision(s) to the FRP to the USCG. This review shall incorporate any revisions to the plan, including listings of fish and wildlife and sensitive environments identified in the Alaska Unified Plan in effect 6 months prior to plan review. If no revisions are required, Crowley Fuels indicates the completion of the annual review in the record of revisions. Crowley Fuels will submit revisions of this response plan to the USCG for information or approval within 30 days, whenever there is a change in the Facility's configuration, type of oil, name of OSRO, emergency response procedures, operating area, or any other changes that significantly affect the implementation of the plan.

Revisions to this response plan shall be submitted to the EPA within 60 days of each Facility change that materially may affect the response to a Worst Case Discharge including a change in the Facility's configuration; type of oil handled, stored or transferred; capabilities of the Oil Spill Removal Organizations (OSRO), if any; Facility's spill prevention and response equipment or emergency response procedures; and any other changes that materially affect the implementation of the response plan. Reference 40 CFR 112.20 (d)(1).

Changes to the plan must be submitted to the ADEC and approved in accordance with18 AAC 75.415 before taking effect. In cases of changes to the ODPCP, an approval in accordance with 18 AAC 75.455 (ADEC) could be required.

The Facility Manager must immediately notify the Crowley Fuels ~~Director~~ Manager Terminal Operation, and Director, Operations Integrity in Anchorage of any cleanup equipment that becomes non-operational. ADEC must also be notified if access to this non-operational equipment reduces Crowley Fuel's response capability to meet the facility's response planning standard.

Crowley Fuels will conduct an investigation following an incident to evaluate this response plan and its effectiveness during a response to a spill or incident.

2.1.2. Prevention Training Program

The prevention-training program is conducted as part of the Crowley Fuels Facility Training (see also description of response training in Section 3.9, Training). The program includes training in inspection and maintenance procedures at the Facility, and prevention measures associated with all Facility transfer procedures and emergency response measures. All personnel employed at the Facility, responsible for operation, maintenance, repair, inspection, security, oil transfer, and tank truck operation, receive training annually regarding Crowley Fuels, federal and State oil pollution prevention measures applicable to each person's duties (Table 2-2). Training is accomplished through a combination of classroom training, on the job training and exercises, and in-house training.

Training will be recorded on a form with the name and date of the training and a title of the training given. The title of the training given is directly related to Crowley Fuels training program course description, objectives and content. The form will be signed and dated by each participant. Records of prevention training shall be prepared and kept for five years unless otherwise specified. All records will be in retrievable form maintained at the facility or from Crowley Fuels Operations Integrity Department in Anchorage and will be provided to the ADEC upon request.

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Table 2-2 Training Matrix

Terminal Training Matrix - Primary

CROWLEY®
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Color Key	Frequency	Delivery
Regulatory	A = Annual	C = Computer Based
Company	SA = Semi-Annual	I = Instructor Led
Customer/Contract	O = Ongoing	C/I = Computer Based or Instructor Led
Professional Development	1 = One Time	M = MSC School
Site/Fleet Specific	2 = 2 Year Cycle	N = Navy School
Footnotes	3 = 3 Year Cycle	O = On-the-Job Training
	5 = 5 Year Cycle	S = Seminar
		T = Trade School
		U = Union School
		V = Vendor

Regulatory Requirements	Frequency	Prior to hire/sign on date	Notes	Within 7 days of hire/sign on date	Within 30 days of hire/sign on date	Within 60 days of hire/sign on date	Within 90 days of hire/sign on date	Within 120 days of hire/sign on date	Accountant	Admin Temp (Operations)	Administrator	Assistant Manager	Clerk, Accounting	Clerk, General	Clerk, Service Order	Coordinator, Accounting	Dispatcher	Driver/Ramp Fueler	Facility Maintenance	Foreman	Fuel Dock Attendent	Fuel/Ramper (Airport) Truck Driver	Equipment Operator	Journeyman Welder	Lead Burner Technician	Line Driver - General	Line Driver - Anchorage/Palmer Local	Line Driver - Fairbanks	Line Driver - Valdez Loop Run	Line Driver - Propane Transport	Local Driver	Manager, Petroleum Terminal	Manager, Propane Operations	Manager, Sales & Marketing	Mechanic	Operator, Tank Farm	Plant Operator	Propane Driver/Technician	RWRK General Mechanic	Skilled Labor/Warehouseperson/Yardhand	Sr. Administrator	Supervisor, A/R	Supervisor, Customer Service	Supervisor, Maintenance	Delivery Method
Accident Prevention	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Benzene Awareness	A				X										X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X				X	X	C
Bloodborne Pathogens	A			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Confined Space - Competent Person[2]	5		[1]			X																									X			X									X	I
Confined Space Awareness[2]	2		[1]	X								X					X		X	X	X	X	X	X		X		X	X	X	X	X				X	X	X	X						C
DOT HazMat Shipping Air	3			X							X	X			X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X				X	C/I
DOT HazMat Shipping Ground	3			X							X	X			X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X				X	C/I
DOT HazMat Shipping Ocean	3			X																																									C/I
DOT HazMat Shipping Rail	3			X																																									C/I
DOT HazMat Security Awareness	3			X							X	X			X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X				X	C
Electrical Safety w/LOTO & NFPA 70E	1				X							X			X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X			X	X	C
Emergency Action Plan	A			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Entry Level Driver (>1 yr CDL holder)[4]	1		[3]		X												X					X				X	X	X	X	X	X				X			X							C
Fire Extinguisher Training	A					X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
First Aid/CPR	2						X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Hazard Communication with PADS[5]	A		[4]	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
HAZWOPER Technician	1				X										X			X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X								C/I
HAZWOPER Technician Refresher	A			X											X			X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X								C/I
Hearing Conservation	A						X					X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X			X	X	C
Hot Work Hazards & Fire Watch	A				X							X			X			X	X	X	X	X	X	X	X						X	X			X	X	X	X	X	X			X	X	C
Lockout/Tagout	1				X							X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X			X	X	C
Longer Combination Vehicle (LCV/Doubles)	A				X																					X		X	X					X										C
Personal Protective Equipment	A			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Powered Industrial Truck Certification[3]	1		[2]			X						X			X				X	X		X	X	X								X	X		X	X	X	X	X	X		X		I
Powered Industrial Truck Evaluation[3]	3		[2]			X						X			X				X	X		X	X	X								X	X		X	X	X	X	X	X		X		I
Propane Storage & Handling	1				X										X		X	X	X	X	X	X	X	X						X	X			X	X	X	X	X	X		X		C
Respiratory Protection Training	1				X							X			X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X						X	I
Respiratory Protection Fit Test	A				X							X			X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X						X	I
Vehicle Brake System Inspection	1				X																														X										I
Walking – Working Surfaces	1			X							X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	C
Wheel Rim Servicing	1				X																													X										X	C

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1
PrimaryOperationsMatrix

Rentention: 5 years

Terminal Training Matrix - Primary

Company Requirements																																												
Active Shooter	A			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Civil Treatment Assessment	2			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Code of Conduct	2			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Crowley Management System	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Drug Free Workplace	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
HRP Leadership Workshop	1					X												X																											I
HRP Coach Workshop	1					X						X						X				X									X	X	X											X	X	I
HRP Foundation Class	1			X					X	X	X		X	X	X	X	X			X	X		X	X	X	X	X	X	X						X	X	X	X	X	X	X	X				I
Incident Command System	1						X					X								X											X														C
Incident Investigation (Acc.Invest & Root Cause)	1				X							X								X											X	X	X								X		X	C
Incident Notification & Reporting	1				X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Industrial Ergonomic	1			X								X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	C
New Hire Orientation	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Office Ergonomic	1			X					X	X	X	X	X	X		X	X														X	X	X						X	X	X		X	C
Office Safety	1			X					X	X	X	X	X	X	X	X	X		X	X		X	X	X								X	X	X	X	X		X	X	X	X	X	X	X	C
Rhythm of Safety	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Smith System Driver Training	2							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Smith System Driver Evaluation	2							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Supervisor Signs & Symptoms	A							X												X											X	X	X								X	X	X	I
Work Place Violence	1			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Professional Development																																												
Fierce Conversations (1-day)	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Hiring the Crowley Way	1							X				M								M											M	M												M	I
Influencer (2-day)	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Leading One Crowley (Mgr or Employee)	1							X	X	X	E	M	E	X	X	E	E	E	X	M	E	X	X	X	E	E	E	E	E	E	E	M	M	X	E	X	E	X	X	E	E	X	X	M	I
Powerful Presentations	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Principles of Project Management	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Safety Management	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	i
Situational Leadership (Mgr or Employee)	1							X	X	X	E	M	E	X	X	E	E	E	X	M	E	X	X	X	E	E	E	E	E	E	E	M	M	X	E	X	E	X	X	E	E	X	X	M	I
The Crowley Way	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Trust Factor (½ day)	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Writing for Clarity	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I
Zodiak	1							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	I

FOOTNOTES

[1]Specific People Only
[2]Excluding Hooper Bay
[3]If Applicable
[4]For Alaska

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2
PrimaryOperationsMatrix

Rentention: 5 years

The following table shows the job duties assigned to each position at the Facility and the prerequisites, including licenses, certification, and essential qualifications for the position.

POSITION / DUTIES	PREREQUISITES
Facility Manager/Supervisor	
Ensure operations are performed in accordance with all regulations and all Crowley Fuels policies and procedures Recognize/correct unsafe conditions, eliminate spill potential Situational Awareness	Knowledge of ADEC, USCG, EPA, OSHA regulations 24-hr HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement Drug screen Medical certification
Shop Foreman	
Direct Facility Operations Transfer Operations / Fueling Maintenance and Inspections Recognize/correct unsafe conditions, eliminate spill potential Situational Awareness	Knowledge of ADEC, USCG, EPA, OSHA regulations 24-hr HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement Drug screen Medical certification
Driver	
Transfer Operations/ Fueling Marine deliveries, warehouse Maintenance and inspections Situational Awareness – Recognize/report unsafe conditions, eliminate spill potential and equipment failure	24-hr. HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement/Commercial Driver's License Drug screen Medical certification
Mechanic	
Transfer Operations/ Fueling Warehouse Maintenance and inspections Situational Awareness – Recognize/report unsafe conditions, eliminate spill potential and equipment failure	24-hr. HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement Drug screen Medical certification
Equipment Operators	
Transfer Operations/ Fueling Marine deliveries, warehouse Maintenance and inspections Situational Awareness – Recognize/report unsafe conditions, eliminate spill potential and equipment failure	24-hr. HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement Drug screen Medical certification
Laborer/ Fuel Attendant/ Plant Operator	
Transfer Operations/ Fueling Warehouse Maintenance and inspections Situational Awareness – Recognize/report unsafe conditions, eliminate spill potential and equipment failure	24-hr. HAZWOPER/8hr annual refresher ODPCP/FRP knowledge Facility Operations Manual knowledge PIC endorsement Drug screen Medical certification

2.1.3. Substance Abuse Program

The objective of Crowley's corporate program is to maintain a work environment free of drugs and alcohol and avoid the risk of drug and alcohol related accidents and loss of performance and applies to all Crowley Fuels employees.

All personnel involved in fuel delivery and fuel transfer operations are subject to DOT regulations regarding alcohol and substance abuse (49 CFR, Part 382). DOT regulations require pre-employment, reasonable suspicion, random, post- accident, return-to-duty, and follow-up testing for both alcohol and substance abuse (46 CFR, Part 16).

Crowley Fuels currently requires post-offer drug testing of all employees. Crowley Fuels also conducts random drug testing for employees covered by DOT regulations, and also to comply with federal and state regulations, and contractual and vendor requirements. Seasonal employees are tested yearly if they leave employment for more than 6 months. Crowley Fuels also drug tests employee who exhibit impairment symptoms.

EMPLOYMENT
All Employees – It is the policy of Crowley Fuels to test applicants for substance abuse as part of the overall pre-employment screening process. Per DOT regulations, employers must require a driver applicant to be tested for the use of controlled substances as a pre-qualification condition. Also, U.S. Coast Guard requires all new employees who are either vessel crewmembers or management personnel having a direct impact on the operation of a vessel to have a Drug-Free Certificate.

REASONABLE CAUSE
All Employees – If a supervisor or manager has reasonable cause to believe that an individual is under the influence of a drug and/or alcohol, based on direct observation of physical, behavioral, or performance indicators, the individual shall be required to be chemically tested for drug and alcohol usage. If possible, two persons should document the observation of the individual.

RANDOM
Facility Operators, Marine Personnel, and Drivers – DOT regulations require the employer provide for the chemical testing of crew members and drivers on a random basis, at an annual rate of not less than 50% of the total pool of employees. Every employee must have a substantially equal chance of selection to be tested on a scientifically valid basis.

POST ACCIDENT/SERIOUS MARINE INCIDENT
Drivers – Crowley Fuels will require drug testing of a driver after a reportable accident if the driver receives a citation for a moving violation arising from the accident and without regards to reasonable suspicion of drug usage. If the person(s) involved is too seriously injured to provide a urine sample, he/she must authorize release of hospital reports and other documents pertaining to the accident that would indicate whether there were any controlled substances in his/her system.

Facility Operators – Crowley Fuels shall also ensure that all employees who may be directly involved in a commercial accident as defined by CFR 49 382.303, a serious accident involving a fatality or a serious injury and/or damage of Company property in excess of $500 are chemically tested for evidence of drugs and alcohol.

PERIODIC
Per federal regulation, drivers and vessel crewmembers will undergo periodic drug testing as outlined by licensing requirements.

DEPARTMENT OF DEFENSE (DOD)
Facility Operators, Administrative Employees – Crowley Fuels will administer drug tests to prevent the use of illegal drugs, on or off duty, by employees in security, health, or safety sensitive positions, to be in compliance with Department of Defense (DOD) federal regulations.

2.1.4. Medical Monitoring Program

Crowley's Medical Surveillance Program is described in the Terminal Operations Manual. Components include Post-Offer and Annual Employment Physicals, Benzene Monitoring, Respiratory Protection Program, Blood-borne Pathogen Program, Hearing Conservation Program, and Return to Work Physical Exam.

EMPLOYMENT PHYSICAL

This exam is required for new employees and returning seasonal employees in certain locations (non-salaried) to determine whether they are medically able to perform all duties as outlined in the physical standards. It is given to new employees at the time of hire and returning seasonal employees are given this exam at the beginning of each season. All Fort Yukon Facility employees are part of this program.

NON-WORK RELATED RETURN TO WORK

The purpose of this exam is to ensure that employees are medically able to perform all the duties as outlined in the physical standards. It is required of all non-administrative employees who have been off work due to a non-work related injury/illness at the time the employee is released for work by their personal physician.

2.1.5. Security Program

Security systems and procedures designed to protect Company property follow the guidelines of the Corporate Security Manual and the Facility Security Plan in compliance with 33 CFR 105 Maritime Security: Facilities.

The Facility is fenced with 8' chain link fencing with two locking man gates and four locking vehicle gates. Gates are locked to control access when personnel are not present. The first valve/header is fenced and locked inside the SCA. Pump house and valves are locked when not in use and are available only to authorized personnel. Manual cut-off valves are located on piping at each tank and at pump stations. The Facility Operator is responsible for locking and unlocking gates and valves as part of the daily operation. In addition, outdoor lighting is installed to provide visibility on the grounds of the Facility after dark.

2.1.6. Transfer Procedures

Crowley Fuels Facilities will take all appropriate measures to prevent spills or overfilling during a transfer. A qualified person will be designated to be in charge of every transfer operation. The person will not be allowed to be the operator in charge until he has had sufficient training and experience to demonstrate that he has the capabilities to conduct a safe transfer. All on duty personnel are in direct communication with each other via intrinsically safe VHF radios at all times through the completion of the transfer.

The Facility's transfer procedures describe specific measures taken prior to and during transfer operations at the Facility. The types of transfers conducted at the facility are described in Section 3.1.2, Type and Amount of Oil. Transfer checklists identifying transfer procedures are kept at the Facility in the Terminal Operations Manual (TOM).

STANDARD OPERATING PROCEDURES

Minimum Number of Personnel on Duty During Transfer Operations (33 CFR 154.310 (a)(6)) A minimum of two persons will be on duty when receiving product from a petroleum barge; one man at the first valve serving as hose watch and one-man working tank and pipeline watch.

The operator-in-charge will be on duty when receiving product and, with the barge representative, will initial the Declaration of Inspection (DOI). The hose watch will witness the signing of the DOI during the pre-transfer conference. The operator-in-charge will inspect all lines and marine, block and bleeder valves to assure all are closed. He will inspect the Facility to see that fire extinguishers, barricades, warning signs, anti-sparking devices and drip pans are on site and in place. The operator-in-charge is responsible for all shore-side operations, checking lines during a transfer, gauging tanks, scheduling line transfers, and closing tanks upon completion of a transfer.

The hose watch will be in constant attendance when the vessel's hoses are coupled to the first valve. The hose watch will assist the operator-in-charge in the inspection of the header facilities including firefighting equipment, barricades, warning signs, condition of pipelines, closing of all bleeder and block valves, and the securing of service lines associated with the cargo lines.

Instructions for the Safe Handling of the Cargo. Refer to SDS (in office)

1. There will be NO SMOKING, NO OPEN LIGHTS and NO VISITORS during fuel transfers.
2. Protective clothing and vapor respirators shall be used as applicable.
3. No oil-soaked rags are to be stored in the containment; rags are to be disposed of properly.
4. In the event of fuel spillage/leakage during transfer operations, all transfers are to be stopped immediately. When the source of the leakage or spillage has been determined and eliminated, transfer operations may resume.
5. A portable dry chemical, carbon dioxide or foam fire extinguisher (B-II) is to be located at the fueling station at all times during fueling operations. One B-II portable fire extinguisher is to be found at the cargo pump module.

Procedures The following are standard operating procedures for fuel transfer at the Fort Yukon Facility as required under 33 CFR 154.310(2)(17).

1. Loading Arms

   This Facility has no loading arms for transferring oil to marine vessels.

2. Transferring Oil

   Before transfer begins, the shore-side operator-in-charge and the barge's representative (PIC) will meet to review a DOI per Coast Guard regulation. Check lists for each company will be completed and signed.

   Under Alaska regulation 18 AAC 75.465, the operator of an oil terminal may not load onto, or unload oil from a tank vessel or oil barge unless the operator of the vessel or barge has an original or true and authentic copy of its approved contingency plan on board. Request that the Master of the vessel (or tug associated with the barge) sign the ADEC Contingency *Plan Verification Log* (included in the facilities TOM); then sign the *ADEC Contingency Plan Verification Log* as the Facility Operator.

   Crowley Fuels designated hose watch will witness the pre-transfer conference inspection before pumping begins.

   a. Pre-transfer Requirements
      - Vessel must be properly moored.
      - Warning signs must be placed and positioned properly at the point of transfer.
      - Connections must be secured and valves opened or closed as required.
      - Tanks must be gauged.
      - Drip pans must be positioned at headers.
      - Fire extinguishers must be nearby.
      - Inspection must correct valve alignment.
      - Adequate personnel must be on hand.
      - High-level alarms will be tested prior to filling.

b. High Level Alarm Testing Procedures:

1. The high-level alarm system shall be checked for operational integrity at least once per month or prior to each tank fill, whichever is more frequent. Refer to the Varec system operations manual.
2. Prior to commencing a transfer, the high-level alarm is to be reset to immediately above product level within the receiving tank.
3. Transfer will be started at an initial reduced rate to determine if the high-level alarm is triggered as tank is being filled.
4. If the high-level alarm is triggered, the high-level alarm set point will be reset to 90% of the safe fill volume.
5. If the high-level alarm is NOT triggered, the transfer will be stopped until the issue with the high-level alarm is resolved.

c. Transfer Precautions

To prevent contamination of one product with another, each product is transferred individually. Operators will use precautions established for the most hazardous product and will check hose connections before and after transferring each product.

Transfer will begin slowly, preferably by gravity or with pumps operating at reduced speed. Rate will increase to a safe level only after a check assures that product is entering the proper tank, there is no leakage, and product is above the incoming cargo line. High-level alarms will be tested prior to filling. Tanks will be gauged every hour and readings logged. One person is designated to continuously monitor the filling tank by visual inspection of an exterior liquid level gauge. When the tank is within 6 ft. of its safe fill volume, the tank will be directly hand gauged from the top of the tank.

Because leak prevention and early detection are essentially “good housekeeping”, during product transfer, the pipeline in use is visually inspected by Facility personnel involved in the transfer. When the line is not in use, it is effectively isolated by block valves inside the secondary containment area.

d. Coupling Hose

Hoses are coupled to headers and vessel’s pump or manifold. Coupling is performed by the hose watch and assisted by the company's operator-in-charge.

e. Pumping

The operator-in-charge will authorize pumping during the operation; the hose watch will check the valves and hoses for leaks and adjust the hoses to compensate for changes in draft. The operator-in-charge periodically will inspect the cargo lines between the first valve and the transfer manifold.

f. Maximum Safe Fill Capacity

Filling the tank to the maximum allowable safe fill capacity (topping off) is normally done by the Facility Manager. In his absence, his designee performs this duty. This activity is *only done one tank and one product at a time*. Generally, there is more storage capacity for most products than can be used between the last barge delivery of the season and first barge delivery of the following season. Tanks are only filled to the maximum allowable safe fill capacity at the beginning of the fuel delivery season and at the end of the season, if required. See Table 3-1 for safe fill capacity for each tank.

3. Completion of Pumping

The operator-in-charge personally will supervise the topping off operation. As noted above, topping off of a tank may happen only once or at most twice a year. At the completion of transfer, the operator-in-charge will advise the barge PIC. During shutdown of discharge operation from a barge to the tank farm, the barge will stop pumping before the marine header is closed to

prevent pressure buildup in the hose. After transfer is completed, the hose is emptied, and the hose watch will assist in detaching the hose extended from the marine header to the manifold. The operator-in-charge will check and secure all valves in the manifold.

After Completion of the Delivery

1. Within 5 days of the end of the month, submit a copy of the *ADEC Contingency Plan Verification Log* to ADEC. A copy of this log can be obtained at: http://dec.alaska.gov/spar/PPR/docs/cpvl.pdf. The completed log can be mailed — ADEC/PPR, 555 Cordova St., Anchorage, AK 99501, or fax to number: (907) 269-7687, or by e-mail to DECSPARC-PLAN@alaska.gov.
2. Copy appropriate Director Terminal Operations in Anchorage.
3. Originals to be kept at the Facility for five (5) years.

TANK TO TANK TRANSFER PROCEDURES

Tank to tank transfers are done in basically the same manner as a transfer from a barge to a tank. This procedure is performed by Facility personnel only.

Procedure The following items shall be completed as part of the fueling process.

1. Conference to determine product to transfer, tanks to transfer between, and volume to transfer.
2. Place drip pans under appropriate headers or hose connections and hookup suction and discharge hoses to headers/valves and pump.
3. Confirm valve alignment
4. Begin transfer at gravity until confirmation that product is flowing from and to the correct tanks.
5. Continue to check valve and lines for leaks throughout the transfer.
6. At the end of transfer shut off pump before closing valves then disconnect and take gauge readings.
7. At no time will there be tank top offs when transferring from tank to tank.

FUELING PROCEDURES

The following items shall be completed as part of the fueling process:

1. Pre-transfer conference with Chief Engineer of vessel or PIC of barge.
2. Prepare DOI and physically check out each listed item.
3. Place all warning/fueling signs, as appropriate.
4. Hook-up hoses to header/stinger and vessel placing containment under each hose connection.
5. Establish radio communication between hose watch, PIC and vessel Engineer or PIC.
6. Final review/check of all hose hook-ups, connections and valve alignments.
7. Confirm with vessel engineer/PIC that all parties are ready to begin fueling operations.
8. Start fueling operations at reduced flow (gravity) without pump. Check all valves and connections, both dock and vessel. When assured that all is okay and both parties agree, start pump.
9. Check all hoses, connections and valves for any problems, both shore side and on the vessel, through radio communications.
10. Check all stinger wells, at every fueling location, for leaks or problems.
11. Continue periodic checks of all systems throughout the fueling operation
12. Check gauge and log minimum of once an hour.

NOTE: If at any time, radio communication is lost, or if you suspect that there is even a remote possibility of a problem, shut the system down and close all valves until it is checked out and verified that everything is in order.

GENERAL TRUCK RACK STATION PROCEDURES

1. Complete the Truck Rack Safety Checklist (Figure 2-1).
2. NO SMOKING IN THIS AREA!
3. NO REPAIR OR ADJUSTMENT OF VEHICLE DURING LOADING
4. PERSONNEL MAY NOT STAY IN CAB DURING LOADING
5. IN THE EVENT OF A SPILL, STOP ALL TRANSFERS IMMEDIATELY AND ACTIVATE EMERGENCY SHUT DOWN SWITCH, NOTIFY OFFICE

Truck Rack Loading Procedures

1. Shut off vehicle engines and radios.
2. Set parking brakes, chock wheels.
3. Visually inspect vehicle & transfer hoses for leaks
4. Connect grounding cable if applicable
5. Verify content & capacity of tank compartment(s) to be loaded
6. Connect product bottom loading connection carefully
7. Open loading rack valve and commence loading
8. Monitor transfer, decrease rate of transfer when loading is 90 % completed
9. The self-closing loading nozzle must remain in the loaders hand, as appropriate.
10. Shut transfer valves (at loading rack and at bulk tank) at completion of loading
11. Disconnect loading downspout, drain and put into its storage holder
12. Check fittings, hoses and loading area for oil discharges
13. Tire chocks are removed.

2.1.7. Oil Storage Tanks

Information on the capacity, contents, installation date, design, construction, and general condition of the storage tanks is included in Section 3.1, Facility Description and Operational Overview. Tanks 22-035 and 22-039 were reconditioned and relocated from the prior Crowley Fort Yukon Facility to the new tank farm; the other six (6) tanks were reconditioned and relocated from the Crowley Nenana Facility and installed at the new tank farm. All tanks were installed in accordance with API 650 (Welded Steel Tanks for Oil Storage, 11th Edition, June 2007), API 653 (Tank Inspection, Repair, Alteration, and Reconstruction, 4th Edition, April 2007) and AK State Regulation 18 AAC 75 in 2011. At the time of their construction, tanks were designed in accordance with the governing standards and specifications. In 2011, Taku Engineering conducted a review of API standards regarding cathodic protection of tank bottoms, historical environmental conditions and considerations for product being stored. The tanks are cathodically protected using inert sand beneath the tank bottoms. The fill material for the tank bottoms met the following requirements:

- Soil resistivity equal to or greater than 20,000 ohm-cm;
- Chloride concentrations did not exceed 10 ppm;
- Sulfate concentrations did not exceed 150 ppm; and,
- The pH of the fill material was greater than 7.5.

No tank has internal steam heating.

Facility personnel gauge all tanks on the last day of the month year-round. The inventory is then transmitted to the Anchorage accounting office where the information is reconciled against sales/receipts for each tank. Any discrepancy will become apparent at this time. Discrepancies will be immediately forwarded to the Director, Marine Terminals.

Tank overfill protection is provided through operational procedures (see Transfer Procedures in Section 2.1.6) and Varec automated high-level gauge alarm (see Table 2-1 and Section 2.5 Discharge Protection).

All tanks are maintained and inspected in accordance with API 653 and Addendum 1. Certified inspectors will conduct inspections and determine the inspection intervals; however, ADEC can reduce the interval for older tanks, riveted tanks, tanks with a history of problems, or after significant earthquakes (see 18 AAC 75.065(b)). All tanks were inspected upon installation (2011). Inspection required by Section 6.3.1 of API 653 will be kept for five years and are available to ADEC upon request; all other records of maintenance, repairs, or alterations are kept for the service life of the tank and are made available to ADEC upon request. The inspection schedule for the terminal's storage tanks is described in Table 2-1. Visual external inspection is done daily. Tank interiors will be visually inspected when cleaned and available. Inspection and maintenance logs are maintained by the facility and are available upon request.

In accordance with 18 AAC 75.065(o), a field constructed above ground oil storage tank removed from service (meaning not in regular used for the service intended and not included in a regular maintenance and inspection program) for more than one year must be cleaned, marked and secured. 18 AAC 75.065(o) requires in effect that the tank:

- be free of oil,
- marked with the words "OUT OF SERVICE" and with the date taken out of service,
- secured to prevent unauthorized use, and
- disconnected from the facility piping.

Crowley Fuels will notify ADEC when the tank is removed from service and when the four actions required by 065(o) detailed above are completed.

2.1.8. Description of Secondary Containment Areas

The facility storage tanks are located within a lined secondary containment area (SCA). The SCA contains 8 vertical tanks. The largest tank in the SCA is tank No. 22-039, with a capacity of 288,043 gallons. The maximum net containment volume of the entire containment area (to the top of the dikes) is 338,400 gallons, after deducting the tanks' foundations, which is greater than the required volume of the largest tank (118%), less the displacement of the other tanks, plus the maximum 24 hr. rainfall amount (based on 1.52 inches in 24 hr. in 1962). The SCA is sub-divided by intermediate dikes; individual sumps are located in each cell (see Figure 1-10).

The primary containment liner (Containment Systems Petrogard VI) extends up and over the dike walls. An impermeable secondary containment membrane liner is installed under each tank, which are draped inside the foundation ringwalls and encompass the entire tank foundation and seal to the primary surface liner outside the tank foundations, resulting in a continuous surface liner and under-tank liner system throughout the tank farm. There are four "under-tank bottom leak detection sumps" and four "primary containment liner leak detection sumps" around tanks 22-035 and 22-039. Tanks 22-201 through 22-206 have two of each. Telltale pipes with cap are provided for periodic inspection for product (per API 650 standards).

The truck loading rack is constructed on a concrete pad. The impervious synthetic liner extends under the truck fill containment slab and pump house. Curbing (3" high X 6" wide) surrounds the perimeter of the truck loading rack pad and a 2% grade within the pad ensures drainage toward the tank farm secondary containment. The largest single tank of trucks filled is 1,500 gallons. A loader is used to remove snow and ice, when necessary. The tank truck loading areas are visually inspected before any transfer operation or at least monthly. The tank truck wheels are blocked to prevent premature movement of a truck.

A concrete containment basin lined with a ¼" steel plate with 159 gallons of containment volume provides containment at the barge offloading marine header (Figure 1-14 in Section 1.8 provides

construction details). The containment basin drains to daylight through a 1.5" welded steel drainpipe controlled by a 1.5" threaded bronze ball valve with union. The drain is left open during when transfers are not occurring but is sealed prior to the commencement of any barge-terminal transfer.

The tank farm is surrounded by a chain link fence. Warning signs are posted on each side and at openings. There is no customer access and vehicles only have access to the tank truck loading rack. The marine header is surrounded by bollards at 4 feet off center, and at the truck loading rack, bollards are installed at the corners of the pump house and curbing exists along the truck side of the pad to protect from accidental contact.

All SCAs at the Tank Farm are maintained and inspected in accordance with 18 AAC 75.075. The SCAs are maintained free of debris, vegetation, excessive accumulated water, or other materials or conditions that might interfere with the effectiveness of the system, and to ensure their effectiveness as designed.

All stormwater drainage is performed per Crowley Procedure EPP-ALL-050, Storm Water Pollution Prevention, Section 4.2.6. Accumulated water will be inspected to ensure that no oil will be discharged. A written record of each drainage operation noting whether sheen was present shall be maintained for five years. Water shall not be discharged to surface water or wetlands.

SCAs are inspected on a daily basis and such inspections are documented weekly. Inspections may include, but are not limited to, storm water build up; tears/potential tear points in liner; berm/dike conditions, including truck loading rack, and other factors that may reduce the effectiveness of the SCAs. Facility personnel shall visually check for the presence of oil leaks within the SCAs during routine operations, and unless precluded by safety concerns or weather conditions, shall conduct documented weekly inspections, including checking for:

- debris and vegetation,
- proper alignment and operation of drain valves,
- visible signs of oil leaks or spills,
- defects or failures of the secondary containment system,
- dike conditions, and
- other factors that may reduce the effectiveness of the SCAs.

2.1.9. Piping Corrosion Control Programs

Cargo piping consists of four 4-inch lines (one UNL, one Heating Fuel, one Diesel Fuel Blend and one ULSD) installed in 2011. All cargo piping has been designed & constructed in accordance with the appropriate standard listed in 18 ACC 75.080(c), is constructed to API standards, and is assembled and welded in accordance with API standard 1104 with no clamped, threaded, or similar connections. Each marine cargo pipeline has a pig receiver.

Corrosion Technology

Aboveground piping is protected from atmospheric corrosion with inorganic zinc-based primer and either a 2-coat epoxy top-coat or a 1 coat polyurea top-coat. Underground piping has sacrificial anode cathodic protection designed by a Professional Engineer (Figures 1-8 and 1-13) and installed in accordance with NACE RP0169-2002. Buried piping has 32-mil thermoplastic resin coating extruded over mastic undercoat, with joints covered with heat shrink sleeves. There are four soil-to-air interfaces at the marine offload header and four at the pig receiver adjacent to the tank farm. The piping at the interfaces has a factory applied extruded polyethylene coating system.

Piping supports are designed to prevent corrosion, chafing, and to be stable under local seismic conditions in accordance with ASME B31.3-2004.

Cathodic Protection and Pipeline Leak Detection Programs

In accordance with 18 AAC 75.080(b) the Facility has developed a corrosion control program that includes:

- Cathodic protection system consistent with NACE Standard Recommended Practice-Control of External Corrosion on Underground or Submerged Metallic Piping Systems (NACE RP0169-2002);
- The cathodic protection system is designed by an expert;
- The cathodic protection system was installed under the supervision of a corrosion expert;
- Atmospheric corrosion control program by the application of protective coatings and periodic visual observation for aboveground piping.

To ensure the system provides full corrosion protection, a qualified contractor annually inspects, tests, and adjusts the CP system to standards of the National Association of Corrosion Engineers (NACE).

Maintenance and Inspection — All Piping

Maintenance and inspection procedures for facility piping corrosion control and leak detection consist of daily visual inspections of the ground for surface evidence of leaks and a scheduled annual maintenance program as required by Alaska Regulation 18 AAC 75.080. The maintenance and inspection program is described in Table 2-1. The buried piping corrosion control program is based on the findings of the corrosion survey and complies with industry standard API 570, Piping Inspection Code.

Aboveground piping systems (including valves, flange joints, catch pans, pipe supports, locks and surfaces) are visually inspected for leaks or damage during routine operations or at least monthly. Any signs of piping systems stress, damage, leakage or stained soil are documented on the Facility's inspection form. The Director Operations, Marine Terminals is then responsible for ensuring prompt repairs are made in accordance with industry standards and recorded.

Piping is pressure tested annually from the marine header to the first valve inside the secondary containment. Marine cargo piping is pressure tested according to United States Coast Guard requirements in 33 CFR.156.170 annually. Piping and hoses are stenciled or tagged with the date of the last test and the allowable operating pressure.

Any pipes removed from service for more than one year will be:

- drained and identified as to origin,
- isolated from the system (capped or blind flanged),
- secured to prevent use,
- and marked "Out of Service" with the date taken out of service.

ADEC will be notified when any piping is removed from service and the above actions are taken.

The maintenance and inspection programs for all piping include:

- corrosion surveys;
- electrical inspection by corrosion expert every three years (intervals between inspections not to exceed 39 months);
- annual testing of cathodic protection system (per NACE 0169);
- examination for damaged coating, corrosion, or deterioration in accordance with Section 9.2.6 of API 570 any time a section of buried line is exposed for any reason (with documentation including photographs);
- examination and corrective action to repair the damaged pipe and, where corrosion is found, control future corrosion and install cathodic protection in accordance with 18 ACC 75.080(d) & (f) if corrosion damage is found. Any installed cathodic protection will be operated and maintained in accordance with 18 ACC 75.080(k);

- replacement of existing piping with new piping, if feasible, when significant repairs or replacements are made. New piping would be:
  1. protected from corrosion by installing protective wrapping or coating and cathodic protection designed by and installed under the supervision of a corrosion expert in accordance with NACE RP0169-2002, appropriate for local soil conditions;
  2. designed & constructed in accordance with the appropriate standard listed in 18 ACC 75.080(c) (e.g., must meet standards in place for new pipe installed after 12/30/08); and
  3. consist of all welded construction with no clamped, threaded, or similar connections for lines larger than a one-inch nominal pipe size.
- facility pipelines are hydrotested annually;
- brush, grass and shrubs in impoundment area are removed;
- maintenance and inspection intervals will be in accordance with API 570 or as prescribed by the inspector.

The arid interior Alaska climate and absence of a salt atmosphere is indicative of non-corrosive soil conditions.

Records of the maintenance and inspections are kept at the facility or at the Crowley Fuels Anchorage office.

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2.2. DISCHARGE HISTORY

Per 40 CFR 110.3 – Discharge of oil in such quantities as "may be harmful" pursuant to section 311(b)(4) of the Act.

For purposes of section 311(b)(4) of the Act, discharges of oil in such quantities that the Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:

(a) Violate applicable water quality standards; or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

There have been no reportable spills since operations began at Fort Yukon.

Crowley began operations at this Fort Yukon Tank Farm in 2012.

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2.3. POTENTIAL DISCHARGE ANALYSIS

2.3.1. Planning Standards

PLANNING STANDARDS FOR EPA-REGULATED PORTION OF TERMINAL

The following spreadsheet (Table 2-3) shows the planning quantity volumes and standards for the worst-case discharge. (per 40 CFR Part 112 Appendix G Section 1.5).

Table 2-3 EPA Planning Standards for the Worst-Case Discharge

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the Terminal could cause substantial harm to the environment.

A1. Single-Tank Facilities: Fort Yukon is a Multiple-Tank Terminal .....N/A

A2. Secondary Containment – Multiple-Tank Facilities.

Are all above ground oil storage tanks or groups of above ground oil storage tanks at the facility without adequate secondary containment? ..... NO

a. If the answer is YES, the final worst-case discharge planning volume equals the total above ground oil storage capacity at the facility.

b. If the answer is NO, calculate the total above ground oil storage capacity of tanks without adequate secondary containment. If all above ground oil storage tanks or groups of above ground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero). ..... 0 Gal.

c. Calculate the capacity of the largest single above ground oil storage tank within an adequate secondary containment area or the combined capacity of a group of above ground oil storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A2 (b).

EPA WCD .....7,798 bbl. or 327,516 gallons

- Planning standard volume for Medium Discharge = 36,000 gallons (857 barrels) or 10 percent of the worst-case discharge (**779 bbl. / 32,718 gallons**) and when compared to the USCG MMPD, whichever quantity is greater.
- Planning standard volume for Small Discharge = any discharge volume less than or equal to **50 bbl. (2,100 gallons)** but not exceed the calculated worst-case discharge and when compared to the USCG AMPD, whichever quantity is greater.

PLANNING STANDARDS FOR USCG-REGULATED PORTION OF FACILITY

The operating volume of the largest tank in secondary containment is considered equivalent to a Facility worst-case discharge but corresponds only to the non-transportation-related side of a facility, per 40 CFR 112. Calculations for the USCG-regulated portion of the Facility are provided below.

The worst-case discharge (WCD) for the USCG-portion is calculated using 33 CFR 154 Appendix C guidance for the transfer lines up to the first valve in secondary containment (Marine Transportation Related (MTR) portion). This calculation is made assuming a shutdown time of 6 minutes. Some portions of the transfer lines are underground, and leak detection could be longer than one hour. Crowley Fuels presents this information in a good-faith effort to identify federal planning standards (Table 2-4).

The discharge from all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the Facility as follows:

Table 2-4 USCG Planning Standards

USCG Worst-case Discharge (WCD) (33 CFR 154.1029 and Appendix C 7.3.4)

The maximum time to discover the release from the pipe in hours, plus the maximum time to shut down flow from the pipe in hours (based on historic discharge data or the best estimate in the absence of historic discharge data for the facility) multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum relief valve setting or maximum system pressure when relief valves are not provided) plus the total line drainage volume expressed in barrels for the pipe between the marine manifold and the non-transportation-related portion of the facility.

Maximum gallons per minute of pump: ..... 600 gpm

TIMES (x) time (minutes) to discover leak PLUS (+) time (minutes) to shut it off:
600 gpm x (6 minutes + 1 minute)

EQUALS gallons lost: .....4,200 gal. (100 bbls)

PLUS (+) volume of piping (est. 1350' length (or 16,200") x 4" pipe diameter): ..... 810 gal. (19.3 bbls)

$V=3.14 \times 4^2 \times 16{,}200"$

V=101,736/231 cubic inches in a gallon

USCG WCD (V=440.4 gallons + 4,200 gallons)**: ..... 4,640.4 gal. (110.5 bbl.)**

USCG Average most probable discharge (AMPD) (33 CFR 154.1020)

a discharge of the lesser of 50 barrels or **1 percent** of the volume of the worst case discharge:

AMPD: .....46.4 gal. (1.10 bbl.)

USCG Maximum most probable discharge (MMPD) (33 CFR 154.1020)

a discharge of the lesser of 1,200 barrels or **10 percent** of the volume of a worst case discharge:

MMPD: ..... 464.1 gal. (11.05 bbl)

The EPA-regulated portion of the Facility represents the larger of the potential spill volumes; this volume is used for calculating the required response resources in the worst-case discharge scenario (refer to worksheet in Table 2-5):

- EPA-defined Worst Case Discharge = **7,798 bbl. or 327,516 gallons**

Table 2-5 Worksheet to Plan Volume of Response Resources for WCD

Part 1 Background Information	EPA	USCG
Step (A) Calculate WCD in barrels (Appendix D)	**7,798 bbl.**	110.5 bbl.
Step (B) Oil Group	Group I (non-persistent)	
Step (C) Operating Area	Rivers & Canals	

Step (D) Percentages of Oil:

Percent Lost to Natural Dissipation (D1)	Percent Recovered Floating Oil (D2)	Percent Oil Onshore (D3)
[80]	[10]	[10]

		EPA	USCG
Step (E1) On-Water Oil Recovery	Step (D2) x Step (A) / 100 =	7.79 bbl.	0.11 bbl.
Step (E2) Shoreline Recovery	Step (D3) x Step (A) / 100 =	7.79 bbl.	0.11 bbl.

Step (F) Emulsification Factor: 1.0

Step (G) On-Water Oil Recovery Resource Mobilization Factor:

Tier 1	Tier 2	Tier 3
[0.30]	[0.40]	[0.60]

Part II On-Water Recovery Capacity (barrels per day) [EPA / USCG]:

Tier 1	Tier 2	Tier 3
[**2.34** / .033]	[**3.17** / .044]	[**4.67** / .066]

Part III Shoreline Cleanup Volume: (barrels per day)	EPA	USCG
	7.79	0.11

Part IV Amount of resources to be contracted: ..... **None**

The Facility's Elastec Skimmer's derated (95%) EDRC is 1,003 barrels[1].

derated (20%) EDRC is 211 barrels.

In addition, Chadux can provide derated (20%) EDRC of 14,986 barrels from its Anchorage inventory (see ~~http://www.chadux.com/equipment~~ http://www.chadux.com/equipment, https://alaskaosro.org/capabilities/equipment/and Table 3-2 in Section 3.6).

Scenarios illustrating the Facilities ability to respond to small, medium and large spills are provided in Part 1, Section 1.6 Response Strategies.

[1] Tested recovery in Group 1 oil at 95% efficiency, accepted for Federal planning standards, ADEC requires 20%.

2.3.2. Potential Spill Sources

It is Crowley Fuel's policy to conduct all tank farm operations in a safe and conscientious manner. Inherent in the storage and handling of petroleum products, however, is the potential for spills from both equipment failure and system error. In this section, potential spill sources are addressed on an individual and detailed basis. These spills, whether catastrophic, operational, or chronic, can largely be prevented through proper operations and maintenance programs as discussed in Section 2.1, Pollution Prevention and Maintenance. Therefore, the likelihood of a spill occurring at the tank farm is significantly reduced.

The following estimated potential spill volumes are based on delivery rates and transfer/monitoring procedures. Refer to the Facility diagrams in Section 1.8 for cited locations.

For practical purposes, this ODPCP provides specific procedures for recovering potential, more probable, spills caused by system error or Facility equipment, and for recovering the contents spilled during a catastrophic loss of one tank. The response procedures for potential spills are described in the Initial Spill Response Action Plan in Part 1 of this ODPCP. Containment and cleanup techniques at the Facility are described Section 1.6 Response Strategies. The reasonably expected modes of failure or accident in which product could be spilled from the Facility are as follows:

Tank Leak or Failure

There is an extremely limited potential for discharge from a tank leak or failure. The maximum quantity of product discharged is based on the shell capacity of each tank. A catastrophic failure of any tank could result in a discharge of that volume. The rate of flow will be variable depending on the size and type of the tank failure. The total quantity of product that could be discharged would not exceed the shell capacity of each tank. The volume of the largest tank is 285,957 gallons (safe fill volume 271,659 gallons). Regardless of size, any spilled oil will be contained in the earthen dike. Recovery operations can then be accomplished relatively easily from within the SCA.

Tank Over Flow

There exists a possibility for a tank to overfill only from operator error.

- Rate of Flow: The rate of flow would not exceed 600 gallons per minute based on the piping delivery rate into tankage. The total quantity of product, which could be discharged, is variable. The total quantity spilled is proportional to the length of time the tank is overflowing. It is estimated that a maximum of 600-1200 gallons of product would be discharged (one to two minutes to shut down the barge pump x 600 gpm transfer rate). Any spill resulting from an overflow of a tank would be contained within the SCA. Fuel transfer procedures insure active monitoring of all transfers.

The possibility of operator error is held to a minimum through training, using only qualified personnel as operators and following strict company guidelines for all fuel transfers.

HOSE BREAK OR PARTING AT MARINE HEADER WHILE VESSEL DISCHARGING IN PROGRESS

At the marine header a potential exists for discharge resulting from hose failure or parting while loading is in progress. Loading occurs only during the open water, summer season and therefore, a winter spill in this area is improbable.

- Rate of Flow: The rate of flow would not exceed 600 gpm based on maximum delivery rate into tankage. Because transfer operations are manned, a spill will be readily detected.
- The total quantity of product that could be spilled is variable based on the maximum intervals between a visual detection of a leak in the system, and the subsequent shutting off of valves and/or pumps to stop the discharge. The total quantity spilled is proportional to the length of time the hose is discharging. It is estimated that a maximum of 2010 gallons of product could be discharged (Table 2-4).
- Direction of Flow: Spilled fuel would be contained within the 159-gallon containment basin and pre-set boom. If spilled fuel escapes the containment boom, the direction discharged product escaping boom would flow on the water would be downstream and otherwise determined by

wind and weather. River current speed would depend on tidal stage and river levels due to seasonal runoff, precipitation, etc. Any oil spilled on the ground will be bermed to prevent it from running into the Yukon River.

- Flow Distance: Non-persistent oils: 5 miles down current during ebb tide (from 33 CFR Part 154.1035 (b)(4)(iii)(B)(2)). Tidal influence does not reverse currents in the river; therefore, there is no upstream component. Based on spill history and local input, it is estimated that spills of the magnitude of the potential marine transfer discharge would disperse within less than one mile after entering the river.

TANK TRUCK LOADING RACK SPILL

At the concrete tank truck loading rack area there is a potential for discharge if the system hose or piping should part or be broken off while loading is in progress.

- Rate of Flow: The maximum rate of flow if a loading system component is accidentally broken while loading is 175 gal/min (Pumps are rated at 175 gallons per minute at 50 PSI.)
- The total quantity of product that could be discharged is variable. As the tank truck loading rack area is attended during all loading procedures it is estimated that no more than 100 – 200 gallons of product would be discharged during any failure. The spill quantity from a failure would be proportional to the time elapsing before the delivery pump is shut off.
- Direction of Flow: Spills at the lined tank truck loading rack will flow towards and into the tank farm secondary containment. Curbing and a sloping grade assure drainage across concrete towards the SCA.
- Flow Distance: Contained within loading area and SCA.
- Recovery will be accomplished by pumping the SCA and cleanup of residue with sorbent pads.

Prevention or reduced probability of a discharge of this type would be:

1. Annual testing of hoses and fittings per the requirements of 33 CFR Part 156.170.
2. Visual inspection of equipment before each fuel transfer.
3. Personnel training and using only qualified personnel.
4. Equipment maintenance.
5. Following strict company guidelines for all fuel transfers

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2.4. CONDITIONS INCREASING RISK OF DISCHARGE

The conditions that create the greatest risk of discharge are natural disasters such as earthquakes, severe storms and floods. The Alaska Interior Area Contingency Plan identify and discuss these regional risks. Section 3.4, Maximum Response Operating Limitations, provides terrain, climatic, and hydrographic data for the Ft. Yukon area. The potential for discharges from such natural disasters is minimized through proper tank construction techniques (API 650 standards) and regular inspection and maintenance procedures. Records indicate that the tank farm has not been exposed to earthquakes, floods, or other natural disasters that would increase the threat of discharge. Refer to Section 2.3, Potential Discharge Analysis, for the possible results of such catastrophic events.

There are no known conditions unique to the facility that might increase risk of discharge.

Earthquakes:

1. API Standard 650, Appendix E indicates Fort Yukon is in Seismic Zone 2B.
2. Tidal waves generated by an earthquake would not travel this far upstream.

Floods:

The bulk storage tanks are located in the Yukon River floodplain area. The tank farm has been built up to rise above the 100-year floodplain. When there is a risk of flooding, the following precautions are taken.

- Compatible fuels are transferred to a single tank.
- Containment area is kept empty.
- Valves are secured and locked.

Soil Instability:

No additional hazard.

Vessel Traffic Patterns:

Not a factor at this time.

Ice:

The tank yard is above the river level and ice should not pose a threat.

Note: The historical season for floods is during spring break-up. This is a period when ice jams temporarily dam the Yukon River and cause temporary flooding. This is also a time when the tanks are at their lowest level if not empty.

Vandalism:

Risks associated with vandalism and vehicular traffic are controlled by fencing, controlled access and security measures (see Section 2.1.5 Security Program) and are considered to be minimal.

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2.5. DISCHARGE DETECTION

Leak detection is performed visually by tank farm operators at the Ft. Yukon fuel facility during business hours. Tanks, piping and valves are visually inspected for leaks or potential causes of leaks such as external corrosion or structural damage.

Inventory is transmitted to the Anchorage accounting office weekly where the information is reconciled against sales/receipts for each tank. Any discrepancy will become apparent at this time.

Leak Detection Methods

Leak detection is provided by sumps surrounding the tanks, which are inspected daily. There are four "under-tank bottom leak detection sumps" and four "primary containment liner leak detection sumps" around tanks 22-035 and 22-039. Tanks 22-201 through 22-206 have two of each. Telltale pipes with cap are provided for periodic inspection for product (per API 650 standards; see Figure 1-13). The storage tanks are visually inspected twice a day when the valves are unlocked in the morning and locked again at night.

During receipts from barges, the tanks are visually monitored. Visual liquid level gauges and high-level alarms provide overfill protection.

Monthly Leak Detection inspections are conducted for tanks along with the taking of inventory. Any sign of leakage is documented on the facility's inspection form. The Director Operations, Marine Terminals is then responsible for ensuring prompt repairs are made in accordance with industry standards and recorded.

Overfill Protection

Overfill protection is provided by High Level Alarm in addition to visual monitoring of tanks by personnel and via site gauges where installed.

The high-Level Alarm is provided through a VAREC 8300 series tank gate interface panel, using a VAREC 6000 series servo tank gauge unit. The panel will activate a horn and strobe in case of a critical high-level alarm.

2.5.1. Discharge Detection for Piping

Inspections for pipelines are as described in Section 2.1.9.

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2.6. COMPLIANCE SCHEDULE AND WAIVERS

No waivers apply to this Facility.

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PART 3. SUPPLEMENTAL INFORMATION

3.1 FACILITY DESCRIPTION AND OPERATIONAL OVERVIEW

The scope of Crowley Fuels business is the wholesale and retail distribution of petroleum products by delivery truck to residential and commercial customers in Ft. Yukon. Crowley Fuels also sells packaged fuel and oil products from its retail store.

The Facility handles approx. 15,000 barrels (630,000 gallons) of product per year, operating whenever it is necessary to transfer product. Normal hours, however, are 8:00 am to 5:00 pm Monday through Friday. Product is delivered to the Facility approximately one to three times during the open water season by Crowley's river barges. The Facility can accommodate one (1) 50' x 175' barge at a time. The barges range in size from 1,428 to 7,600 barrels of capacity.

The Ft. Yukon facility is located approx. 1,700 feet from the Yukon River on the north bank. The Facility consists of barge manifold, a tank truck loading rack with fuel pumps, eight storage tanks totaling 17,864 barrels of capacity and associated piping. A lined earthen containment dike completely encloses the tank yard (Section 2.1.8). The tank truck loading rack is located adjacent to the tank yard on the north side (Figure 1-9).

A warehouse/garage is adjacent to the office on William Loola Street, approx. ½ mile from the tank farm.

3.1.1 Oil Storage Container Information

		SIZE	SHELL CAPACITY[2]		SAFE FILL[3]			
Tank #	**Built[1]**	**Diameter X Height (feet)**	**Barrels**	**Gallons**	**Gallons**	**Foundation**	**Status**	**Service**
22-035	1964	26 X 32	3,038	127,611	121,230	Concrete Ringwall	In Service	DF Blend
22-039	1972	39 X 32	6,858	288,043	273,641	Concrete Ringwall	In Service	Jet A
22-201	1956	20 X 24	1,326	55,691	52,906	Concrete Ringwall	In Service	Unleaded
22-202	1956	20 X 24	1,325	55,633	52,851	Concrete Ringwall	In Service	DF Blend
22-203	1956	20 X 24	1,333	55,967	53,169	Concrete Ringwall	In Service	Unleaded
22-204	1956	20 X 24	1,321	55,477	52,703	Concrete Ringwall	In Service	ULSD
22-205	1956	20 X 24	1,328	55,773	52,984	Concrete Ringwall	In Service	ULSD
22-206	1956	20 X 24	1,335	56,055	53,252	Concrete Ringwall	In Service	ULSD
		Total:	**17,864**	**750,250**	**712,738**			

[1]All tanks were reconditioned and relocated to the newly built Fort Yukon tank farm site in 2011; all are vertical, welded steel construction with fixed roof. A description of the SCA, foundation and inspection methods can be found in Part 2.1.8.

[2] Full Physical volume of tank based on calibrated capacities that are consistent with the strapping charts

[3] Physical volume of tank based on location of vents and safe fill capacity

Facility Day Tanks

Tank Number: Heating Fuel Day Tank for office	***NON-COMMERCIAL USE ONLY***	
	Type	Horizontal
	Size	3'2" D x 5' H
	Capacity (gallons)	300 gallons/7 barrels
	Construction	Welded Steel/Double Wall
	Inspection	Visual
	Leak Detection	Visual
	Fabrication Date	April 2008
	Installation Date	15 October 2008
	Condition	Good
	Product	Heating Fuel

Tank Number: Heating Fuel Day Tank for shop	***NON-COMMERCIAL USE ONLY***	
	Type	Vertical
	Size	3'2" D x 5' H
	Capacity (gallons)	300 gallons/7 barrels
	Construction	Welded Steel/Double Wall
	Inspection	Visual
	Leak Detection	Visual
	Fabrication Date	April 2008
	Installation Date	15 October 2008
	Condition	Good
	Product	Heating Fuel

3.1.2 Type and Amount of Oil

Products stored at the Crowley Fuels Fort Yukon Facility are as follows:

- Gasoline, Unleaded
- Ultra Low Sulfur Diesel (ULSD)
- Diesel Fuel Blend
- Heating Fuel #1
- Jet A

The Safety Data Sheets (SDS) are located in the office.

Annual throughput is approximately 630,000 gallons with an estimated daily throughput of 1,726 gallons.

The Ft. Yukon Facility does not resell 55-gallon drums of lubes and fuels.

3.1.3 Transfer Procedures

Transfer procedures as required under 33 CFR 154.310(2)(17) are included in Part 2, Section 2.1.6, Transfer Procedures.

Minimum Number of Personnel on Duty During Transfer Operations (33 CFR 154.310 (a)(6)) A minimum of two persons will be on duty when receiving product from a petroleum barge; one man at the dock headers serving as hose watch and one-man working tank and pipeline watch.

The operator-in-charge will be on duty when receiving product and, with the barge representative, will initial the Declaration of Inspection (DOI). The hose watch will witness the signing of the DOI during the pre-transfer conference. The operator-in-charge will inspect all lines and marine, block and bleeder valves to assure all are closed. He will inspect the Facility to see that fire extinguishers, barricades, warning signs, anti-sparking devices and drip pans are on site and in place. The operator-in-charge is

responsible for all shore-side operations, checking lines during a transfer, gauging tanks, scheduling line transfers, and closing tanks upon completion of a transfer.

The hose watch will be in constant attendance at the dock when the vessel's hoses are coupled to the marine header. The hose watch will assist the operator-in-charge in the inspection of the dock facilities including firefighting equipment, barricades, warning signs, condition of pipelines, closing of all dock headers, bleeder and block valves, and the securing of service lines associated with the cargo lines.

3.1.4 Disposal of Oily Wastes

A disposal plan will be submitted to ADEC within 30 days of completing a spill cleanup with the expectation that all contaminated materials would be removed within the 90-day time frame. This plan will also specify permanent disposal methods and sites. Specific disposal methods will depend on the nature of the oil-contaminated material, prevailing weather conditions, location and available disposal sites. If not handled correctly, disposal can pose temporary and long-range problems. A variety of disposal methods can be used on both small and large spills, including oil/water separation and recycling of the oil, incineration, burial, and natural biodegradation.

Larger quantities of oil and oil/water mixtures recovered from a spill will be pumped into waste oil barrels or storage tanks located at the tank farm. All oil-saturated sorbents or debris will be placed into 55-gallon storage drums, and then sealed. Such materials, including slop liquids, are transferred to a lined sea container and placed on board a Crowley barge for transport to a facility for recycling or disposal/incineration. Separated water and waste materials will be tested, if necessary, by an analytical laboratory to determine proper disposal methods.

For small quantities of oil, all solid wastes will be burned on site with Facility Smart Ash™ incinerators; all oily liquids and slops will be processed through an oil/water separator prior to discharge.

Containers — Recovered oil will be placed in sealed containers. Oily debris, such as vegetation or sediments, will be placed in leak-proof containers to prevent leakage during handling and transport. Plastic bags, debris boxes, or other containers lined with plastic are suitable for this purpose.

Temporary storage may be necessary if large quantities of oil or oily debris are recovered. If additional storage space for liquids is required, one or more Crowley petroleum barges in the area could be available within 12-36 hours. Temporary storage assets are also available for deployment from Chadux's Anchorage inventory.

If temporary storage in leak-proof skid tanks, tank trucks, bags or containers is not adequate, an area lined with plastic sheeting (to prevent soil penetration) may be used to store non-liquid waste, including contaminated sediment.

Selection of a good temporary storage site should be based on:

- Good access to cleanup operations.
- A site with minimum slope, located away from gullies, streams, etc.

Site preparation should include:

- Construction of an earthen berm around the perimeter of the storage site.
- Construction of an entrance and exit ramp over the berm to allow access to the storage area.
- Deployment of a plastic liner around the storage area to prevent any contamination of permeable soil and to ease demobilization of the temporary site.

The Alaska Department of Environmental Conservation (ADEC) must in every case, approve the ultimate disposal of waste oil and oily material. Permits may be required for storage, transporting, and disposal. Crowley will follow and comply with 18 AAC 340 for Soil Cleanup Levels, 18 AAC 345 for Groundwater and Surface Water Cleanup Levels, and 18 AAC 370 for Soil Storage.

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3.2 RECEIVING ENVIRONMENT

Vulnerability Analysis

The EPA Planning distance for Crowley Fuels Ft. Yukon Facility, solving for "d" using EPA's Planning Distance Calculation (see map, Figure 1-16 in Section 1.8):

"d" = "v" x "t" x "c"

"d" = 4.61 ft/sec. x 27 hr x 0.68 = 84.64 miles

For USCG planning, using the same formula except using "t" = 24 hours, equals 75.24 miles.

For a discussion of the protection of environmentally sensitive areas in Ft. Yukon, see Section 3.10.

3.2.1 Potential Routes of Discharge

SPILLS TO LAND

Spills within the tank farm would be confined within the SCA; the SCA is fully lined and able to contain more than the volume of the largest tank (Section 2.1.8). A spill escaping the SCA would follow the natural topography and flow into a low-lying area north of the facility (between the tank farm and the channel between the River and Hospital Lake; Figure 1-7). It is estimated that between 161,850 – 189,250 square feet of land could become saturated with fuel, with up to 2" of product absorbing into the ground (Mike Wolski, P.E., UMIAQ LLC).

SPILLS TO THE OPEN WATER

A discharge from the tank farm would not be expected to reach the Yukon River due to the distance and topography between the tank farm and the River (Figure 1-7).

The Facility could impact the waters of the Yukon River from an operational failure during a barge transfer or failure at the marine header. Section 1.6.5 Containment and Control Strategies and the ~~*STAR Manual*~~*STAR Manual* identify potential containment and control tactics. Potential oil discharges of this type, including estimated size, are discussed in Section 2.3 of this ODPCP, Potential Discharge Analysis and are illustrated in the scenarios in Section 1.6 Response Strategies.

Section 1.6.4 Protection of Environmentally Sensitive Areas identifies sensitive receiving areas, which could be impacted by a discharge. More detailed environmental sensitivity data is included in Section 3.10, Protection of Environmentally Sensitive Areas.

RECEIVING ENVIRONMENT

- In the event of an accidental discharge from the Fort Yukon storage facility, the area surrounding and including the SCA is graded to enhance containment of the oil; therefore the escaping fuel would not be expected escape the SCA unless a catastrophic incident, such as an explosion or earthquake, compromised the SCA berm.
- An upgraded access road (FAA VORTEC Rd.) would act to block the flow of oil the northwest; Airport Road would act to block the flow of oil towards the River to the southwest. The airport lies to the east (Figures 1-7)
- The largest tank is Tank No. 39 with a capacity of 288,043 gallons. The capacity of the SCA is 338,400 gallons including the allowance for tank footprints.
- A discharge caused by a tank overfill, tank rupture, or cargo piping or valve leak within the tank farm, should be fully contained within the facility SCA.
- It is very unlikely that fuel will reach open water from a tank failure or spill at the tank truck loading pad due to the slope of the pad toward the tank farm SCA and the distance of the tank farm from the Yukon River or Hospital Lake and SCAs in place. [Oil would flow into and be contained within the SCA.]
- If there were a leak outside the containment area from piping, valve, cargo hose or marine header failure, the rate of flow would not exceed 600 gallons per minute, which is the maximum delivery

rate. Under current operational standards, a discharge in this system should not exceed 4,200 gallons (Table 2-4).

- There are no water intakes in the area of the Fort Yukon Facility or downstream of the Facility.
- There are no schools in the area of the Fort Yukon Facility or downstream from the Facility.
- There are no medical facilities in the area of the Fort Yukon Facility or downstream from the Facility.
- There are no commercial businesses or residential areas located in the vicinity of the Facility. Crowley Fuels protects Ft. Yukon and the environment by:
    1. having constructed a secondary containment dike around the tank storage area;
    2. lining the tank SCA and tank truck loading pad with an impervious liner; and
    3. having enough response equipment on site to immediately respond to the most probable spill.
- Environmentally Sensitive Areas are located just downstream from the Fort Yukon Facility. The area downstream from Fort Yukon has no access except from the river and there are no roads or clearings for an aircraft to land.
- Fort Yukon has a population of approximately 543 persons (2018 Census). Human population risks are minimal. The potential risk to humans from a worst-case discharge is as follows:
    1. Ambient air quality affected if fire/burning of product occurs.
    2. Loss of product may impact day-to-day life such as fuel rationing, heating, etc.
    3. Potential loss of income due to lack of fuel for operating vehicles, equipment, etc.
- Because of current flow, any accidental discharge of oil along the river would likely be transported into the river channel. Oil may also be transported by eddies into quiescent waters and sloughs that could impact adjacent wetlands. The nearest village is Beaver at 88 river miles downstream, which is outside of the planning distance.

3.2.2 Estimate of Volume (as a % of the RPS) that Could Reach Open Water

The Response Planning Standard (RPS) volume for this type of facility is based on the capacity of the largest single storage tank with reductions for preventative measures (see Part 5 of this plan). The adjusted response planning standard is calculated to be 77,988 gallons or 1,857 barrels. A discharge of such volume could only result from tank rupture or catastrophic event. The primary SCA is designed to contain such a discharge. Based on the existing SCA, which includes intermediate diking within the SCA, the local topography and distance from the river, it is estimated that as a result of an RPS discharge no oil could reach the waters of the Yukon River. In addition, the existing roadways (Airport Road and FAA Site Road) between the facility and the River also would act as an interception berm and block the flow towards the River.

For required planning purposes, in the event of a breach in the dike, it is assumed that a portion of the adjusted RPS could escape the primary SCA and flow into the surrounding property (as illustrated in Scenario C in Section 1.6). There is a potential for oil to flow northward and reach the channel between the Yukon River and Hospital Lake if more than about 26% (71,147 bbl.) of the volume of the largest tank (273,641 bbl., safe fill volume) escaped the SCA (Mike Wolski, P.E., UMIAQ LLC).

For an operational spill during a barge transfer, a hose, pipeline or marine header failure, the USCG-defined worst-case discharge volume for a spill from the non-transportation related portion of the Facility would be 4,640 gallons (110.5 bbl.) (see Section 2.3, Table 2-4 for calculation).

See also spill scenarios in Part 1 Section 1.6, Response Strategies.

3.3 COMMAND SYSTEM

3.3.1 Incident Response Teams

This section describes the Crowley Fuels organization for conducting an oil spill response and cleanup operation. This organization consists of two teams: the Initial Response Team (IRT) and Incident Management Team (IMT). Crowley Maritime Corporation, as the holding and parent company of Crowley Fuels, provides administrative and IMT support personnel.

The IRT, led by the Facility Manager, consists of the local Facility personnel, with assistance, as required, by Response Action Contractors (Chadux). The organization of the Company's IRT is shown in ~~Figure 3-1~~Figure 3-1.

The IMT, led by the Qualified Individual (QI) or designee, consists of personnel from staff functions that will provide overall management and support during any significant spill situation. ~~Figure 3-2~~Figure 3-2 shows the organization of the Crowley Fuels IMT. The spill response organization incorporates the Incident Command System to allow maximum use of Company resources, enhanced relations with regulatory agencies, and common terminology for Response Action Contractors.

The QI or designee will serve as the Incident Commander during any spill cleanup requiring activation of the IMT. During minor operational spills, the Facility Manager will assume the role of On-Scene Incident Commander (OSIC) and coordinate cleanup with local Response Action Contractors. In the event of a more significant spill, the Facility Manager will implement initial actions and act as Incident Commander until the QI and IMT members arrive on location.

Contact numbers are provided in Figure 1-1 in Section 1.2, Reporting and Notification.

3.3.2 Organization Plan

Upon notification of an incident of significant size and complexity, the Facility Manager will assume the role of OSIC until relieved by the QI or designee. If the IMT is activated, the QI will assume the role of Incident Commander and shall brief the team and authorize each Section Chief to activate units from their respective sections, as necessary, within company financial guidelines.

Whenever a spill is reported, regardless of the spill size, the Facility Manager acting as OSIC, will supervise cleanup efforts, document all events, and continually communicate the status of the spill to the appropriate Company personnel as required.

At the discretion of the Facility Manager, additional company manpower and equipment may be mobilized from the region to assist the IRT, as necessary. The IRT may obtain additional equipment and labor support from Response Action Contractors (Chadux) as described in Section 1.5.2, Response Action Contractor Mobilization. Contact numbers are provided in Section 1.2, Reporting and Notification.

Figure 1-1 in Section 1.2 in Part 1 is the notification diagram that Crowley Fuels will use to ensure that all appropriate persons and agencies are informed of a spill.

3.3.3 Initial Response Team (IRT)

The organization of the Crowley Fuels IRT is shown in ~~Figure 3-1~~Figure 3-1. This team will investigate and handle all minor spills.

In the case of a vessel-related spill, the tug captain or barge PIC, together with the assigned port captain or barge supervisor and Facility personnel, will be responsible for immediate containment and response actions with the equipment stored on each oil barge. Most minor oil spills will be contained on the vessel's deck or dock with sorbent pads and boom, or on water near the vessel or facility using a floating boom. In the case of a terminal-related spill, the Facility Manager and operating personnel

will be responsible for immediate containment and cleanup actions (see Section 1.5, Deployment Strategies).

At the discretion of the Facility Manager, additional company manpower and equipment may be mobilized from the region to assist the IRT as necessary. As shown in ~~Figure 3-1~~Figure 3-1, the IRT may obtain additional equipment and labor support from Response Action contractor. The Company has agreements with Chadux to provide manpower and equipment as required for a spill emergency.

Figure 3-1 Initial Response Team

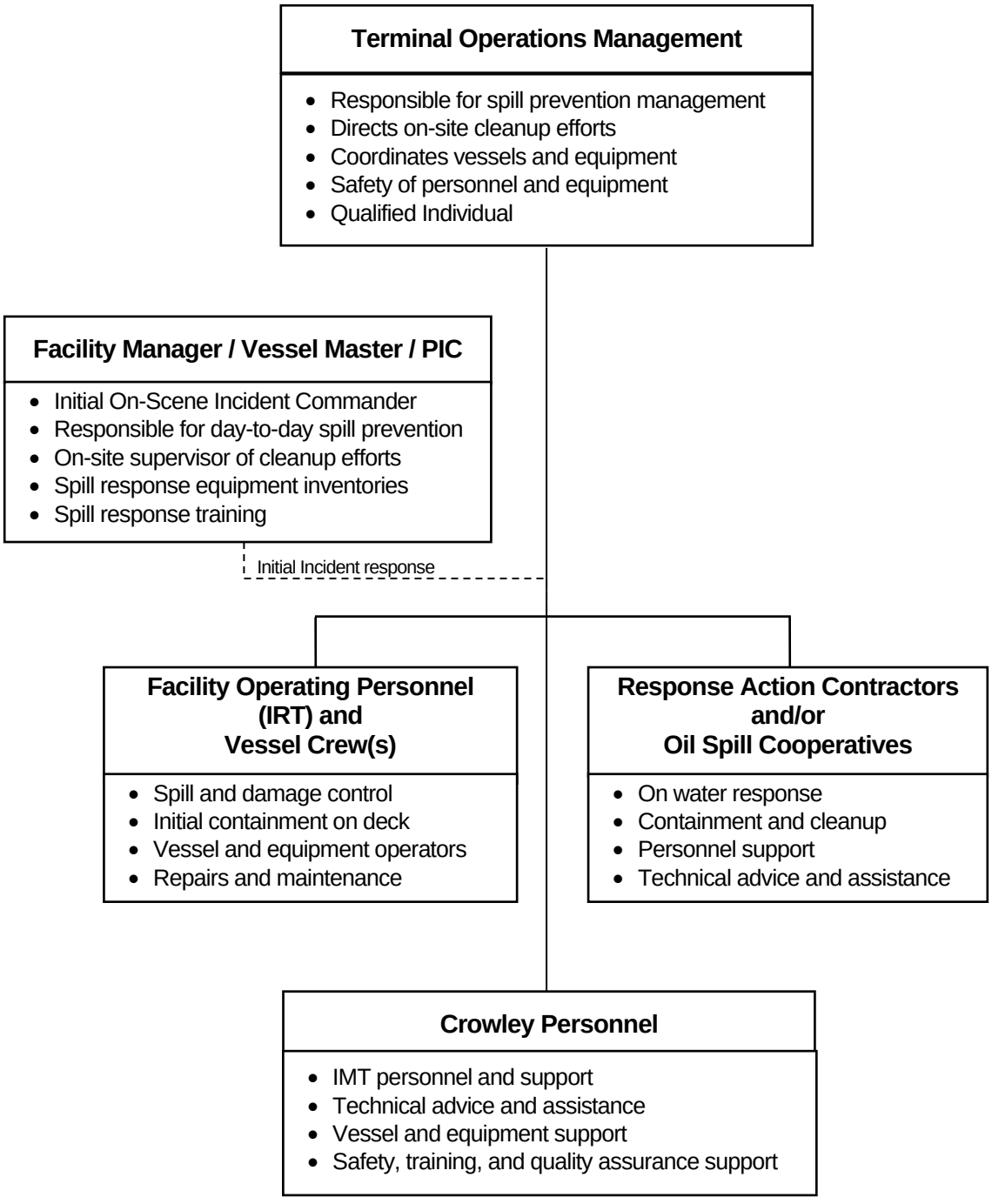
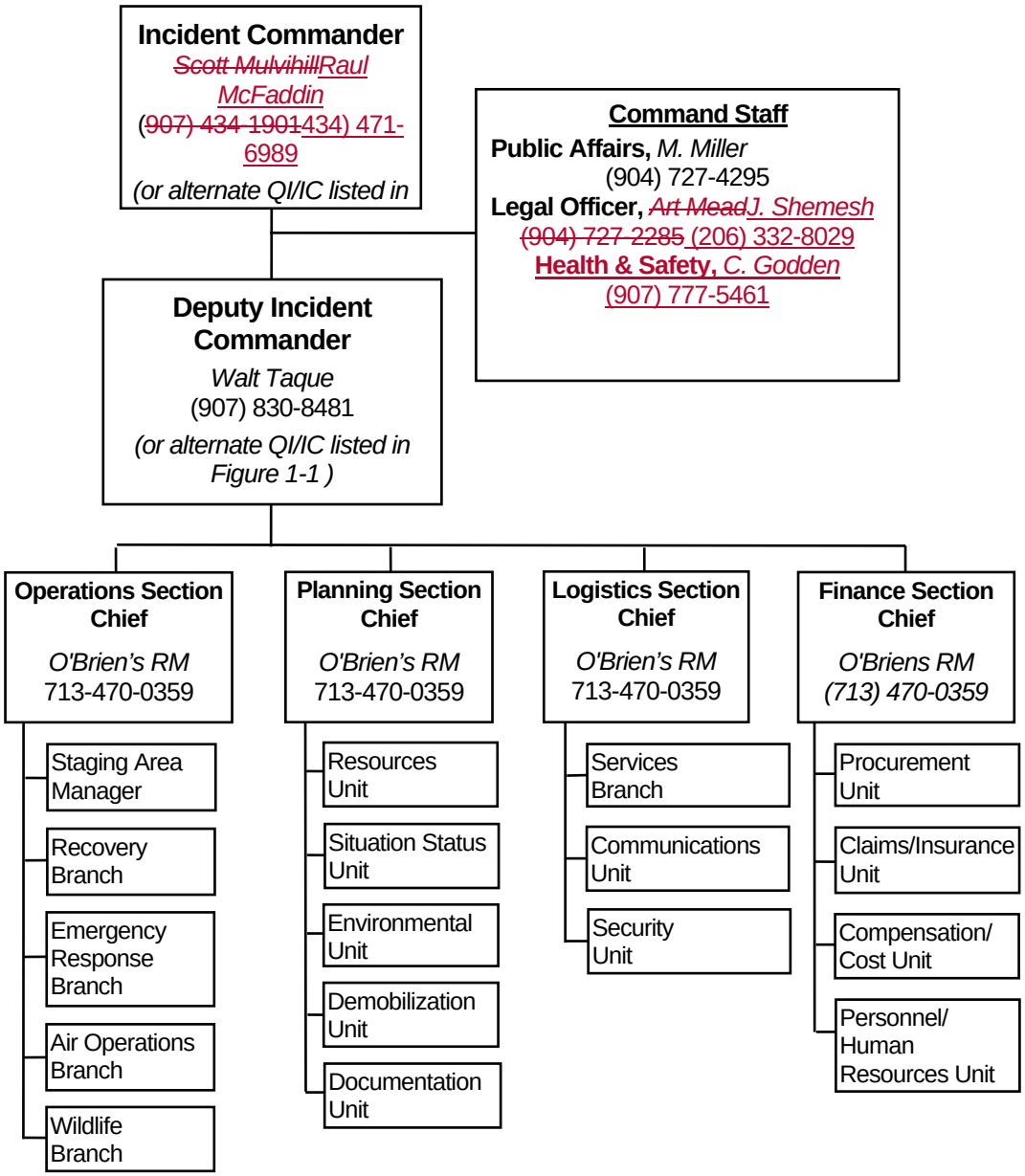


Figure 3-2 Incident Management Team (IMT)



Crowley Fuels maintains 24-hour contact numbers for all Incident Management Team members. Alternate personnel from Crowley's trained IMT would be contacted to fill the roles if the person listed were unavailable.

O'BRIENS Response Management (RM) is on contract with Crowley to provide IMT support. Assignments to the IMT will be identified by the IC/QI for mobilization. Additional information is located in Section 3.8.

3.3.4 Incident Management Team (IMT)

~~Figure 3-2~~Figure 3-2 shows the organization of the Crowley Fuels IMT. This organization incorporates the Incident Command System (ICS) to allow maximum use of Company resources, enhanced relations with regulatory agencies, and common terminology for response contractors.

The Incident Commander/Qualified Individual for the Company's IMT will use his judgment to determine when this team will be mobilized.

The Incident Commander will brief the team on the incident size and complexity and advise the Company team which members will respond.

The IMT Incident Commander will maintain contact with Crowley Management to obtain appropriate financial authority limits, depending on nature and complexity of the response, and keep all Corporate officials apprised of the incident's status on a regular basis.

The following pages will briefly describe the roles and responsibilities of the IMT members. Personnel identified for the Crowley IMT functions are listed in ~~Figure 3-2~~Figure 3-2.

COMMAND SECTION

Incident Commander

Deputy Incident Commander

Command Staff
Health/Safety Officer
Public Affairs Officer
Legal Officer
Liaison Officer

The Command Section is made up of the Incident Commander, Deputy Incident Commander, Safety Officer, Public Affairs Officer, and Legal Officer. Their duties and responsibilities are as follows:

Incident Commander (IC)/Qualified Individual (QI) — Assumes overall responsibility for the management of the operation. This element may include such staff, as required, to perform or support the command function. Mutual aid liaison at the *policy* level (as compared to tactical application) is also performed here. All *strategic* direction issues from this entity. The IC is authorized to obligate the funds required to carry out response activities and will maintain contact with Crowley Management to obtain financial authority limits and keep Corporate officials apprised of the incident status.

Crowley QI/IC and Alternates meet the requirement of 33 CFR 154.1026 and 40 CFR 112.20 for facilities. They are located within the United States, fluent in English, available on a 24-hour basis. They are fully trained and familiar with the implementation of the Facility Response Plan. The liability of a QI/IC is considered to be in accordance with the provisions of 33 USC 1321(c)(4).

Other major responsibilities within this functional area are:

- Activate and engage in contracting with RAC/OSRO(s);
- Establishing strategic objectives
- Establishing response priorities
- Acting as a liaison and working with unified or coordinated commanders (FOSC/SOSC)
- Handling company management relations
- Preparing situation status reports
- Community media relations

- Qualified Individual responsibilities per 40 CFR Part 112.20 (h)(3)(ix) include:
  - Activate internal alarms and hazard communication systems to notify all facility personnel;
  - Notify all response personnel, as needed;
  - Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;
  - Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;
  - Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
  - Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);
  - Assess and implement prompt removal actions to contain and remove the substance released;
  - Coordinate rescue and response actions as previously arranged with all response personnel;
  - Use authority to immediately access company funding to initiate cleanup activities; and
  - Direct cleanup activities until properly relieved of this responsibility.

Deputy Incident Commander — Responsible for conducting planning meetings and coordinating the activities of all response personnel to implement Incident Action Plans and the directives of Senior Management, the IC, and appropriate government agencies. Has complete authority over response personnel at the spill scene as directed by, or in the absence of, the IC.

Other major responsibilities within this functional area are:

- Handling government relations
- Coordinating response operations
- Participating in detailed incident assessment
- Compiling and posting information on the status of response operations and resources

Safety Officer — Responsible for developing measures for ensuring personnel safety. This includes establishing, maintaining, and providing for emergency medical services, and developing a health and safety plan.

Public Affairs Officer — Responsible for formulation and release of information about the crisis to the news media and other special interest groups. This includes development of necessary distribution literature, scheduling all news conferences and public meetings, and acting as chief facilitator/spokesperson during these events.

Legal Officer — Provides advice only on legal aspects of an incident. Ensures that information that may be relevant to the defense and/or settlement of future claims is gathered and preserved.

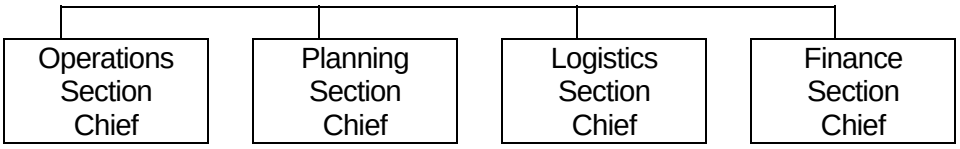
Liaison Officer — Responsible for communicating with local, state, and federal government agencies. Other major responsibilities include:

- Provide a point of contact for government and civic representatives
- Identify representatives from each agency, including communications link and location
- Make sure agency representatives are informed of incident activities
- Respond to requests from incident personnel for inter-organizational contacts

- Monitor incident operations to identify current or potential inter-organizational problems

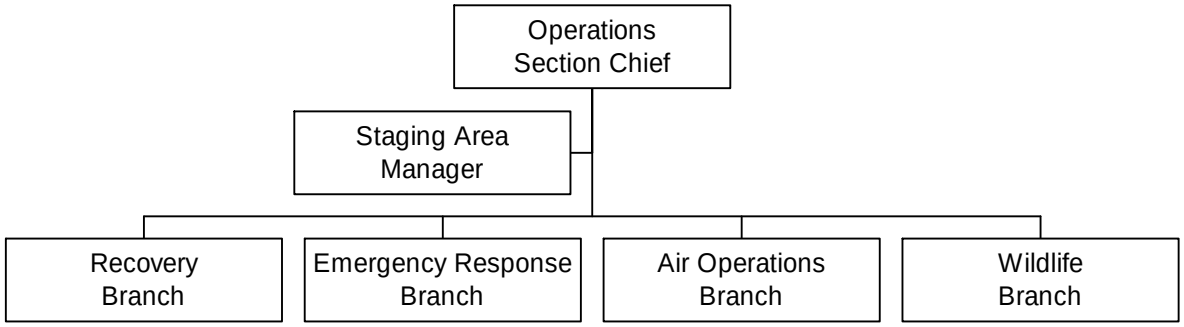
GENERAL STAFF

The General Staff is made up of the four section chiefs.



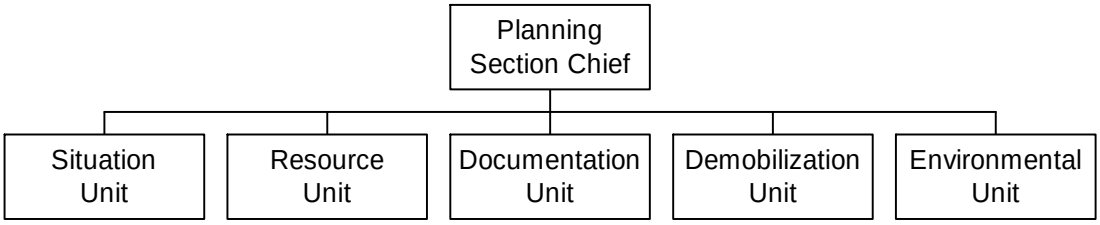
Their duties and responsibilities are as follows.

OPERATIONS SECTION



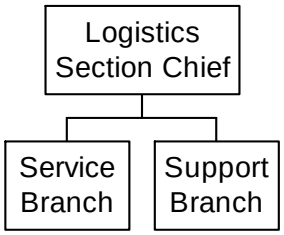
The Operations Section Chief is responsible for all *tactical* command and coordination of incident response assets (in accord with the approved incident action plan), regardless of company/agency affiliation or type of asset (e.g. site, equipment, contractor labor, or government resources).

PLANNING SECTION



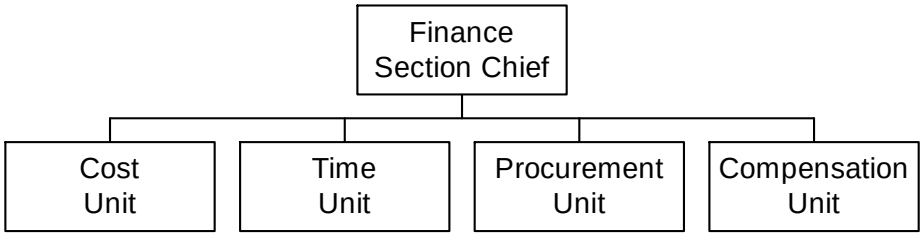
The Planning Section Chief's staff becomes the organizational focus for all information or intelligence relative to the incident. This element is responsible for maintaining current situation status, as well as attempting to predict future incident developments (for example, the use of computer modeling systems). This section also has the primary responsibility for the production of action plans to be developed in coordination with the other organizational elements. It is the responsibility of this section to work very closely with both the Operations and Command Section elements in order to supply their intelligence requirements.

LOGISTICS SECTION



The Logistic Section Chief's staff provides any resources, such as personnel, supplies, materials, etc., required to control the situation or support the response structure. All requests for resources, whether internal (Incident Commander or Section Chiefs) or external (mutual aid, response contractors, consultants, etc.) are directed to this element.

FINANCE SECTION CHIEF



This section is designed to handle all the financial aspects of an operation (contracts, cost, etc.), as well as human resource-related issues. Other duties may include handling claims information or other like data.

UNIFIED COMMAND

When appropriate, a Unified Command System will be integrated with Crowley ICS and federal, state, and local OSCs and agencies that may have jurisdictional responsibilities at the incident. Since oil spills invariably involve multiple jurisdictions, it is important that agencies with regulatory responsibility help determine overall objectives and response strategies. As such, a well-defined, joint decision-making process is required that does not compromise any agency's individual authority. This is done through representation in a Unified Command.

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	**2. Incident Number:**	**3. Date/Time Initiated:** Date: Date Time: HHMM

4. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment)**:**

5. Situation Summary and Health and Safety Briefing (for briefings or transfer of command)**:** Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards.

6. Prepared by: Name: Position/Title: Signature: _____

ICS 201, Page 1 Date/Time: Date

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	**2. Incident Number:**	**3. Date/Time Initiated:** Date: Date Time: HHMM
7. Current and Planned Objectives:		

8. Current and Planned Actions, Strategies, and Tactics:	
Time:	Actions:
HHMM	
HHMM	
HHMM	
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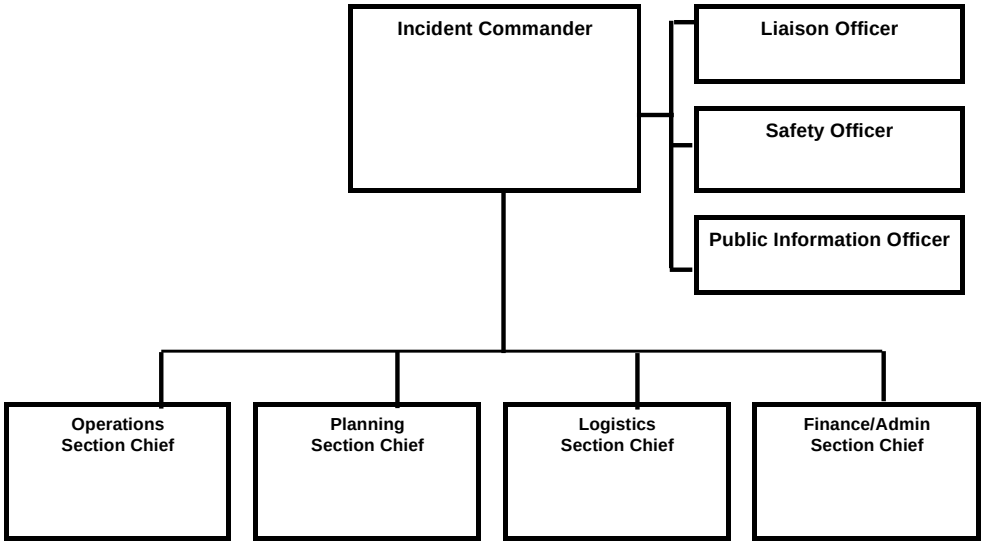
6. Prepared by: Name:	Position/Title:	Signature: _____
ICS 201, Page 2	Date/Time: Date	

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated: Date: Date Time: HHMM

9. Current Organization (fill in additional organization as appropriate)**:**



6. Prepared by: Name:	Position/Title:	Signature:
ICS 201, Page 3	Date/Time: Date	

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	**2. Incident Number:**	**3. Date/Time Initiated:** Date: DateTime: HHMM

10. Resource Summary:

Resource	Resource Identifier	Date/Time Ordered	ETA	Arrived	Notes (location/assignment/status)
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	

6. Prepared by: Name: Position/Title: Signature: _____

ICS 201, Page 4 Date/Time: Date

1. Incident Name	2. Operational Period (Date / Time) From: To:	UNIT LOG ICS 214-OS
3. Unit Name / Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date / Time**

UNIT LOG June 2000 ICS 214-OS

Electronic version: NOAA 1.0 June 1, 2000

1. Incident Name	2. Operational Period (Date / Time) From: To:	UNIT LOG (CONT.) ICS 214-OS

6. Activity Log (Continuation Sheet)

TIME	MAJOR EVENTS

7. Prepared by: **Date / Time**

UNIT LOG June 2000 ICS 214-OS

Electronic version: NOAA 1.0 June 1, 2000

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3.4 REALISTIC MAXIMUM RESPONSE OPERATING LIMITATIONS

The response options available to contain and control an oil spill may be negligible under adverse weather conditions, such as extreme cold, wind, fog or precipitation. The frequency and duration of these limitations would be for as long as the extreme conditions existed. Extra precautions to avoid spills under such circumstances are appropriate. Precautionary procedures that may be used during rough weather could include lock down of valves and shut down of operations. Typically transfer operations would not be performed under adverse conditions.

Response to oil spills will be made under all weather conditions; however, the response may be limited only to notification and documentation should conditions be such that safety hazards would limit response or that equipment or response methods would be ineffective or technically unfeasible. At no time is the safety of personnel, equipment, or the environment to be compromised by Crowley Fuels operations. Continuous assessment will be made as conditions change regarding the implementation of further or alternative response strategies. Resources will be staged in standby mode, if safe to do so, to respond as soon as conditions improve.

When environmental conditions exceed or do not meet our company safety standards, transfer operations are not conducted. By limiting vulnerability in adverse conditions Crowley Fuels reduces the likelihood of having to respond to a spill during those conditions. The potential does exist, however, when a response may be necessary during adverse conditions. Given the frequency of these conditions, balanced against the operational policy of Crowley Fuels, the percentage of the time when response operations would be affected by adverse conditions would be about 5%. Response strategies would be limited or modified to maintain safe and effective operations.

It is understood that extreme adverse weather conditions could preclude any response actions and limit operations.

Weather conditions and forecasts for Alaska can be obtained from:

- http://climate.gi.alaska.edu/

Ice forecast and information can be obtained through the National Ice Center:

- https://www.weather.gov/afc/ice

Current marine warnings, watches and advisories for Alaska can be found at:

- https://www.weather.gov/afg/

The Alaska Inland ACP is available on the Internet at:

- https://dec.alaska.gov/spar/ppr/contingency-plans/response-plans/inland-area/

~~Current weather conditions, warnings and forecasts for Alaska can be obtained from:~~

- ~~http://climate.gi.alaska.edu/Wx/current.html~~

3.4.1 General Adverse Weather Conditions

The continental influences of Central Alaska produce cold winters, relatively warm summers, and low precipitation. The mountains to the north (Brooks Range) provide protection from the Arctic zone climate, while the southern mountains (Alaska Range) provide a shield from the maritime zone.

With regard to oil spill cleanup operations, the most significant meteorological factor on land is snow, while on water the determinant factor is surface wind and visibility. The effects of weather on logistical support need also be considered. Conditions such as heavy fog, storms and precipitation may delay response time due to transportation delays, reduced ability to track oil movement, and greater care needed to insure personnel safety. The percentage of time for these effects will vary from year to year.

WINDS

Measured winds at Fort Yukon are predominately from the Northeast in fall, winter, and spring (approximately 32% of the time), and from the West to Southwest in July and August (approximately 10-13% of the time).

Average wind speeds at this location range from 7.3 knots in the summer to 6.9 knots in the winter (annual mean = 6.4 knots). An extreme high wind of 30 knots has been recorded, while calm conditions are experienced approximately 11% of the time.

Wind adds a velocity component to an oil slick on water of about 3% of the wind speed. A strong westerly wind would parallel the river's current in the Fort Yukon vicinity, which would enhance the downstream movement of oil in slack water.

PRECIPITATION
An average of 6.5 inches of precipitation per year occurs at Fort Yukon, including 45 inches of snow. Highest precipitation occurs during the months of April, May, and August; snowfall is greatest in October, November, and February.

Snow tends to aid the containment of oil spilled on land through its absorbent characteristics and the relative ease with which large quantities of it can be moved. Snow can, however complicate the location of oil beneath it and reduce the efficiency of personnel and equipment trying to move and/or work in it.

VISIBILITY
Poor visibility (6 miles or less) at Fort Yukon can be the result of fog, smoke, haze, and/or blowing snow. The community experiences a monthly average of 14 days with heavy fog from November through January, and blowing snow, smoke or haze 1-2 days per month during the remainder of the year. The area experiences 24 hours of daylight on June 21st.

TEMPERATURE
Temperatures at Fort Yukon range from 35º to 75º in the summer to -36º to -18º in winter, with recorded extremes of 100º in summer and -63º in the winter. Temperature is not expected to affect response during the summer. Cold temperatures can aid response by increasing viscosity and slowing the flow of oil. During extreme cold temperatures in winter, additional personnel could be required to allow shorter worker exposure times by increasing shift rotations and breaks.

3.4.2 River Condition and Currents

Annual peak flows of the upper Yukon River are created by spring snowmelt and by heavy summer rainfall. Mean annual peak runoff generally averages less than 10 cfs per square mile, while the low monthly runoff averages 1 cfs per square mile. The average surface current speed at Fort Yukon is 5 knots.

Major ice jam flooding does occur in the Fort Yukon area. These episodes result from spring runoff, aggravated by accumulated broken ice, on either the Yukon or the Porcupine Rivers, and are characterized by rapid rises of water level and velocities. Flood durations may range from a few hours to several days, sometimes causing considerable damage as ice is carried into the village by high water. The path of oil spilled as a result of flood damage is unpredictable but would undoubtedly affect a large area well above the normal high-water mark.

Oil spilled into the Yukon River at Fort Yukon would tend to move rapidly on the river and downstream with the main current, at rates varying from near 3 to 5 knots during normal river flow rates. Product carried along with near shore currents would proceed downstream at 0.1 to 0.5 knots, accumulating in slow-moving sloughs and backwaters. Contamination of bar deposits is a factor for consideration at these sites.

The upper Yukon River carries a sediment load of about 300 mg/1; its tributaries average 100mg/1. Most of the river's sediments originate from glacial melt at its headwaters; the quantity will affect the speed at which spilled oil will be absorbed onto particles and disperse into the river system. The greater the sediment content, the more rapid the absorption and sinking of the oil. The large sediment transport capacity of the Yukon River during episodes of seasonal high water would either bury contaminated beaches or redistribute such material over a wide area; thus, shoreline contamination in the Yukon River would likely be a short-term problem.

3.4.3 River Ice and Debris

Ice breakup of the Yukon River generally occurs during mid-May, with freeze up occurring in late October or early November. River forecast and information can be obtained through the National Weather Service Advanced Hydrologic Prediction Service:
http://water.weather.gov/ahps2/index.php?wfo=pafg2

3.4.4 Hours of Light

Hours of daylight should not be an issue during the operation season as daylight hours are extensive during summer operations in Alaska. All fuel transfers from barges are done in the open water season. At this time of the year it is light for the most part of 24 hours a day. All fuel transfers in the fall/winter would be from retail sales at the facility. The facility is well lit for this operation if a spill occurs after dark, or if response needs to continue after dark, the lighting at the terminal should be adequate.

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3.5 LOGISTICAL SUPPORT

The Crowley Fuels owns and operates numerous petroleum barges and tugboats throughout the Alaska coastal region that can be called upon to provide support for a spill (see ~~Section 3.6 Response Equipment~~https://alaskaosro.org/capabilities/equipment/). The magnitude of this operation varies depending upon seasonal constraints. In the event of a spill, the equipment stored on board the tugs and barges, such as skiffs and spill response equipment, related personnel and the barge itself as a storage facility could be utilized. Additional logistical support is available from the Crowley Fuels facilities throughout Alaska (i.e., Galena, Nome, Kotzebue and Bethel; (see ~~Figure 3-3~~Figure 3-3 in ~~Section 3.6 Response Equipment~~Section 3.6 Response Equipment and from response contractors, and through an MOU with other barge operators in Alaska. Other support would be provided, as necessary, from commercial suppliers and would be procured by the Logistics Section Chief.

Logistical and area resources and regional services (contractor, state, local, and commercial) that may be used for a spill response are provided in the Chadux Response Manual Section ~~3.55~~., ~~and in the current versions of the Alaska Interior Area Contingency Plan (see Resources Section; available on the internet: http://www.akrrt.org/plans.shtml).~~ Additional information is provided in the Alaska Community Database on the Internet at:

http://commerce.state.ak.us/cra/DCRAExternal/.

3.5.1 Coordination

Coordination of Logistical Support is handled either by the Facility Manger, ~~Director~~ ManagerTerminal Operations, or, for large-scale response efforts, by the IMT Logistics Section Chief. The Logistics Section Chief will provide personnel, supplies, materials, etc., required to control the situation or support the response structure. All requests for resources, whether internal or external, are directed to this element. Crowley Fuels maintains a purchasing staff at its headquarters in Anchorage. This staff can arrange with numerous other suppliers to provide ancillary support materials and services that may be required at the cleanup site.

All planned aircraft and vessel movements will be coordinated with Federal and State OSCs through the Unified Command System and will meet applicable Coast Guard and FAA regulatory requirements during emergency and response operations.

The following is a list of commercial support services that could be called upon to assist with logistical support.

3.5.2 Response Support Resources

CLEANUP CONTRACTORS

~~Alaska Chadux Corporation~~ Alaska Chadux Network (PRAC).....(907) 348-2365

~~Unitech of AK~~Unitech of AK (Lease/Sell Equipment Only) .....(800) 649-5859

3.5.3 Transportation Resources

Fort Yukon is accessible by air, and barge during the summer months. Most travel within the region is by plane (scheduled and charter) or boat. The existing road network is local and minor. There are 17 miles of local roads, and over 100 automobiles and trucks. The City Transit Bus system provides transport throughout the town. There is no connecting road network leaving the area physically isolated from other communities. Snow machines and dog sleds are used on area trails or the frozen river, which becomes an ice road to area villages during winter.

AIRCRAFT SUPPORT

A State-owned 5,810' long by 150' wide lighted gravel airstrip is available. Hospital Lake, adjacent to the airport, is used by float planes.

~~Alaska Airlines~~Alaska Airlines:.....(800) 252-7522

Air Logistics of Alaska, Fairbanks ..... (907) 452-1197

~~Tanana Air Service~~Tanana Air Service, Yukon, Tanana, & Kusko Rivers, Fairbanks (907) 474-0301

Galena ..... (907) 656-1834

~~Everts Air Alaska~~Everts Air Alaska, Fairbanks ..... (907) 450-2350

Larry's Flying Service, Fairbanks ..... (907) 474-9169

~~Lynden Air Cargo~~Lynden Air Cargo ..... (800) 926-5703

Charter sales ..... (888) 243-7248

Bethel ..... (907) 543-3405

Email ..... charters@lac.lynden.com

~~Northern Air Cargo~~Northern Air Cargo (24 hr) ..... (800) 727-2141 or (907) 474-9606

Cargo only

~~Ravn Alaska~~Ravn Alaska (formerly ERA Aviation, includes Hageland Air and Frontier Flying Service, — Reservations/Sales (24 hr.) ..... (800) 866-8394 or (907) 266-8394

Yukon Aviation & Helicopters, Bethel ..... (907) 543-3280

Yute Air, Bethel ..... (907) 543-3003

Freight ..... (907) 543-3005

Warbelow's Air ..... (907) 474-0518

Charters and Freight ..... (888) 280-0582 / (907) 474-3550

~~Warbelow's Air Ventures~~Warbelow's Air Ventures Fairbanks ..... (907) 474-0518

Wright Air Service, Fairbanks ..... (907) 474-0502

Charter Desk ..... (907) 474-0542

Commercial air services that may be used for equipment and personnel mobilization, and overflight monitoring for a spill are provided in the resources section of the Alaska ~~Interior~~ Inland Area Contingency Plan, and Chadux Response Manual Section ~~3.5~~5.

GROUND VEHICLES

Available ground vehicles in the Crowley Fuels equipment inventory are listed in Section 3.6, Response Equipment. These vehicles are maintained as needed to keep them in working condition. Additional vehicles would be available from local businesses.

3.6 RESPONSE EQUIPMENT

~~Table 3-1~~Table 3-1 lists the oil spill cleanup equipment maintained as operational and available at the Crowley Fuels Fort Yukon Facility.

Oil spill cleanup equipment, personnel, and other support services are also available through contract with Chadux (see ~~Section 3.8, Response Contractor Information~~Section 3.8, Response Contractor Information). Chadux has response equipment staged in Anchorage that is available for immediate deployment to Fort Yukon. Chadux response equipment, including a current full listing and description can be found on their website at~~— www.chadux.com~~ https://alaskaosro.org/capabilities/equipment/.

Though not required to meet the RPS for this facility, additional boom, skimmers and storage assets are available ***in region*** through other Crowley Fuels Alaska Facilities, recognizing that 40% of that equipment must remain resident (see Section 1.5 for deployment requirements). ~~Figure 3-3~~Figure 3-3 shows the primary locations for Crowley Fuels equipment throughout Alaska.

~~Wildlife hazing equipment, also maintained at the facility, is listed in Section 3.10.5, Protection of Wildlife.~~

Dedicated response equipment that applies to RPS calculations is included in Table 1-2 (see Section 1.5, Deployment Strategies) with average response times, nameplate and de-rated recovery capabilities, and other appropriate information, as required for RPS calculations (see also information provided in Section 1.6, Response Strategies).

Skimmer and boom characteristics are shown in ~~Table 3-2~~Table 3-2. All skimmers hoses and pump hoses are compatible with facility hoses and all are certified for use with Group 1, non-persistent, oil products.

EQUIPMENT STORAGE, INSPECTION AND MAINTENANCE
Annually, all Facility oil response equipment is removed from its storage van/shed/box and is inventoried, inspected, started up, replaced or repaired as required. All mechanical response equipment (pumps, skimmers, etc.) is checked by starting up once per month when not in more frequent use to assure operability and readiness. Mechanical equipment (pumps/skimmers) is inspected monthly during the open water season; booms are inspected annually. All mechanical equipment is serviced and repaired on site, or in Anchorage. Records are kept of maintenance and inspection activities at the Facility and Crowley Anchorage office. A Spill Response Equipment Inspection/Maintenance Log is included in Terminal Operations Manual (TOM). Crowley Fuels Management personnel conduct company in-house inspections.

Communications equipment such as radios and their components are tested daily, as part of a daily routine. Any radio not used on a daily basis will be tested monthly. If equipment tests fail, the equipment would be sent for inspection and repair, or replaced as necessary.

3.6.1 Time Frame for Delivery and Start Up

All Facility response equipment identified in ~~Table 3-1~~Table 3-1 is:

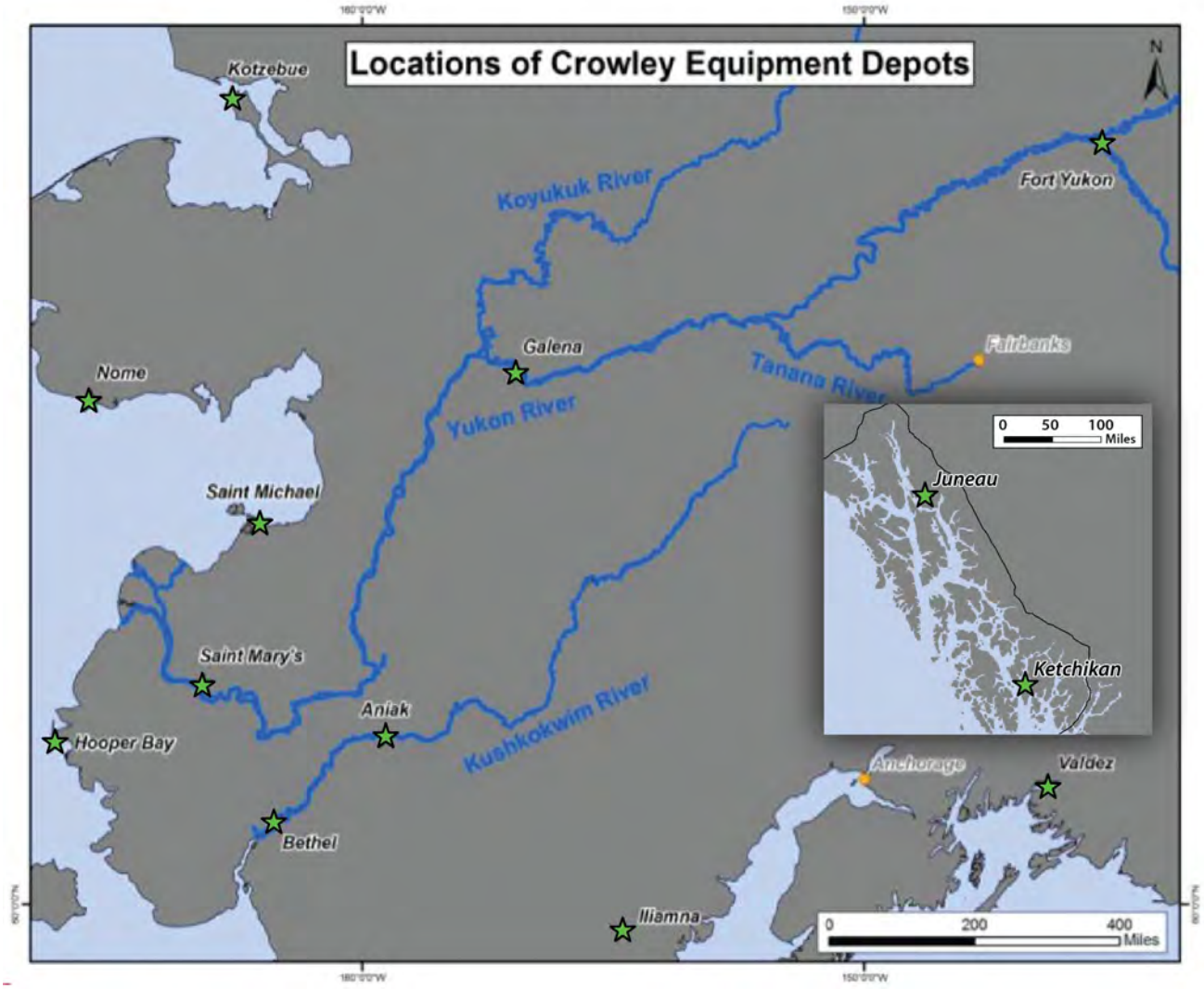
- Owned by Crowley Fuels and is dedicated to its Facility.
- Is stored ready for use at the location.
- Is appropriate and compatible with the products stored.
- Is maintained in good repair and is ready for use.

If assistance is requested, or if local conditions restrict deployment of the containment and recovery equipment, the Facility Manager will activate the Incident Command System as appropriate (as described in ~~Section 3.3~~Section 3.3, Command System).

Table 3-1 Fort Yukon Tank Farm Equipment Inventory

Description	Quantity	Model & Make	Rating / Capacity	Location
Containment Boom	5 x 100'	Kepner plastic's Rivers	8"d. x 12" BHD8120RF	Conex
Containment Boom	5 x 100'	Chevron Boom	8" x 12"	Conex
BoomVane	1	Elastec .5m		Conex
Boom Tow Bridles	1	Kepner		Conex
Boom Lights	2			Conex
Skimmer	1	Elastec Drum TDS-136	44 bbls/hr (8.8 @ 20%)	Conex
Air Compressor	1	Emglow		Conex
Portable Transfer Pump	1	4" Robin EY40 S/N 40TA-176 9	642 bph (128 @ 20%)	Conex
Portable transfer pumps	1	3" Yanmar Diesel	428 bph (86 @ 20%)	Conex
Anchors	6			Conex
Buoys	8	A3 3.9 cu. ft.		Conex
Line	300' aprx	3/4" poly 3 braid		Conex
Transfer Hoses	1	4" x 50' Suction hose	W/quick connects	Conex
Transfer Hoses	1	3" x 25' hose	W/quick connects	Conex
Transfer Hoses	2	4' x 50' Discharge hose	W/quick connects	Conex
Transfer Hoses	1	3' x 200' Discharge hose	W/quick connects	Conex
Transfer Hoses	1	3' x 100' Discharge hose	W/quick connects	Conex
Fire hose & Nozzle	1	Nozzle w/2" x 50' hose	W/quick connects	Conex
Sweep Boom/sweep	2	Sorbent boom/sweep		Conex
Sorbent Pads	20 bales	Sorbent pads		Conex
Boom Cleaner	1	5 gal pail		Conex
Sorbent Ringer	1	Ringer		Conex
Storage drums	20	55 gal.		Behind office
Plastic bags	2 pkgs	6-mil.55 gal Disposable		Conex
Tank Trucks	3	D-148 D-82 D-155	1,200 gallons 2,500 gallons 3,000 gallons	
Air Horns	2			Conex
Safety Glasses	1 pr	Uvex P/N 300S1359		Conex
Ear Plugs	1 bx/200	EAR Classic 3101001		Conex
Reflective (Mylar) tape	6 rolls			Conex
PPE: Life Vests	2		XL	Conex
½ mask respirator	2	North PN/7700	2 lg.	Conex
Respirator filters	12	Filters N7583		Conex
Tyvec suits	6	Poly coated LK5428 52	2 XL and 4 2X	Conex
Gloves	12	73010 Nitrite	Chem. resistant	Conex
Inner gloves	1 bx/50	7005XL	Chem. resistant	Conex
Boot covers	12	DSC LB1250Y	12 XL	Conex
Hard Hats	2			Conex
Face shields	2	MSA P/N 804639,	Bracket P/N 804639	Conex
Safety goggles	2	Uvex P/N S350	Chemical/impact	Conex
Plastic Sheeting	2	12' x 100'		Conex
Liner Material	Scraps	Seaman's corp.		Conex
Oars	1 set	8' oars		Conex
Work boat	1	16' Lowe w/60HP	Yamaha on trailer	Office
Rakes/shovels	1 ea	Any brand		Conex
Generator	1		2500-3000 watt	Conex
Light for gen set	1		Quartz	Conex
Patch & Plug kit	1	Wood plugs, premix, mallet	Nitrile 12 x 24, clamps	Conex
Smart Ash® burner	1			

Figure 3-3 Locations of Crowley Fuels Equipment in Alaska



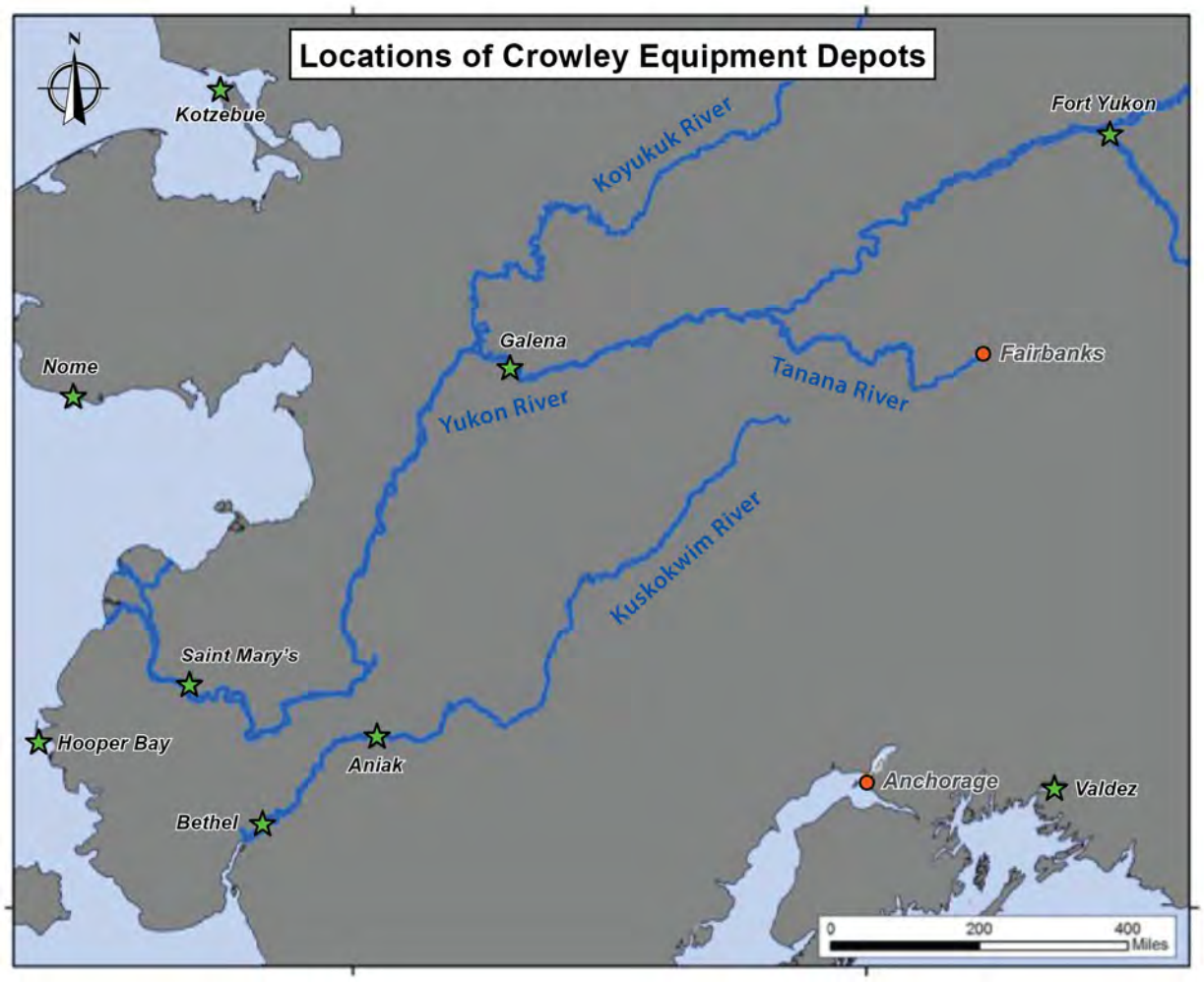

Locations of Crowley Equipment Depots
N
Kotzebue
Koyukuk River
Fort Yukon
Galena
Nome
Fairbanks
Tanana River
Yukon River
Kuskokwim River
Saint Mary's
Hooper Bay
Aniak
Anchorage
Valdez
Bethel
0
200
400
Miles

Table 3-2 Skimmer Specifications

The following is a summary of skimming and boom equipment and information from operational testing of this equipment.

Equipment	Alden Ind. — Rope Mop	Skim-Pack 2200	Skim-Pack 4200	Skim-Pack 18000	Elastec Drum TDS-136
Optimum application	light-heavy viscosity oils, calm and moderate wave conditions, oil thickness >5 mm	high-volume recovery, all viscosity oils, calm	high-volume recovery, all viscosity oils, calm	high-volume recovery, all viscosity oils, wave tolerant	light-medium viscosity oils, calm to moderate waves, oil thickness several mm
Effective viscosity	<10,000 cSt	<10,000 cSt	<10,000 cSt	<10,000 cSt	<10,000 cSt
Nameplate Capacity	10-15 bbls/hr	48 bbls/hr	96 bbls/hr	428 bbls/hr	44 bbls/hr*
EDRC* (20%)	48-72 bbls	230 bbls	460 bbls	2,040 bbls	220 bbls (20%) 1,056 bbls** (95%)
Pumps		diesel 2" DPL48-2PT 210 gpm (42 @ 20%)	diesel 3" DPL70-3PT 360 gpm (72 @ 20%)	diesel 3" DPL70-3PT 360 gpm (72 @ 20%)	
Other	operates in debris/ice	debris screen	debris screen	debris screen	

	Kepner 8"x12" Boom (BHD-81208RF)	Fast Current River Boom
Freeboard	7 inches	7 inches
Draft	13 inches	12 inches
Height	20 inches	19 inches
Standard length	100 feet	100 feet
Ballast	chain	chain
Tension member	¼" chain bottom	5/16" chain bottom
Strength	25,500 lbs.	23,500 lbs.

*EDRC = Effective Daily Recovery Capability; nameplate derated to 20% per ADEC requirement.
Source: World Catalog of Oil Spill Response Products.
**Tested recovery in Group 1 oil of 40 bbl/hr at 95% efficiency, accepted for Federal planning standards.

RESPONSE TIME

In the event of an accidental discharge, on-site equipment and personnel will be deployed. Under normal conditions, deployment of on-site equipment will be accomplished within 30 minutes of the time the on-scene response team is activated.

3.6.2 Support Equipment and Personnel

The Ft. Yukon Facility has a warehouse with tools and equipment and personnel that are available to assist in response operations. Also, Ft. Yukon has access to heavy equipment such as a front-end loader in the event of a spill.

In addition, Crowley Fuels Nome, Galena and Bethel have a variety of resources and trained personnel also available to assist in response operations.

Mobilization and transit times are discussed in Section 1.5, Deployment Strategies.

Response Contractor support is discussed in ~~Section 3.8, Response Contractor Information~~Section 3.8, Response Contractor Information.

3.7 NON-MECHANICAL RESPONSE INFORMATION

Crowley Fuels does not maintain equipment or resources for use of dispersants or in-situ burning, and as such does not consider their use. The following is provided for completeness and understanding of techniques that may be considered by the Regional Response Team (RRT).

DISPERSANT USE

The term "oil spill control chemical" generally includes chemical dispersants, surface collectants or herders, and various types of detergents. Crowley Fuels does not stock or use any oil discharge control chemicals. It is required by law that before any oil spill chemical is used, approval must be granted by the FOSC and SOSC. Decisions regarding the use of dispersants are made by the FOSC/SOSC in accordance with procedures described in the Part 3 of the Alaska Regional Contingency Plan.

Use of chemicals to control oil discharges is closely controlled by State and Federal regulations and decided on a case-by-case basis. The conditions under which chemical agents may be used are judged by the RRT and are presented in Annex 10 of the *National Oil and Hazardous Material Contingency Plan*.

Should a situation arise in which oil spill chemicals were to be used, the application of these chemicals will be made under the direction of the IMT Planning Section Chief and Federal On-Scene Coordinator.

IN-SITU BURNING

Crowley Fuels does not maintain equipment at the Fort Yukon Facility to support *in-situ* burning. Approval by the ADEC is required before *in-situ* burning can be used as a response technique. Decisions regarding the use of *in-situ* burning are made by the FOSC/SOSC in accordance with the Alaska RRT-approved "*In-Situ* Burning Guidelines for Alaska" (see Part 3, Alaska Regional Contingency Plan). In the event that *in-situ* burning is determined to be a preferred option and is approved by ADEC, the following logistical requirements and limitations would apply.

The logistics for *in-situ* burning depend, in part, upon the size of spill and equipment availability. In general, burning will require:

- Two vessels of equal power to tow the boom.
- Fire proof boom (100 m minimum, 140 m preferable)
- Boom accessories (150 m tow lines, boom connectors, anchors if necessary, floats, and boom lights).
- Ignition device and/or wicking material.

The primary limitations for *in-situ* burning are:

- The oil film on the surface must be thick enough (>0.3 mm) and volatile enough to support combustion.
- Moderate to high winds may deter ignition and create unsafe burning conditions.
- A thick residue often remains after burning which must be physically removed.
- This technique should be attempted only when good radio communications exist and experienced operators are on the scene.
- Due consideration must be given to wind and currents if the boom with captured oil is to be anchored in place.
- Shore-period wind waves may splash oil over the boom, while the bridging of boom over wave troughs may cause additional loss under the boom.
- Two work boats of equal power should be used to tow the boom.

~~3.7.1 Plans for Protecting Environmentally Sensitive Areas~~

~~In the event that non-mechanical methods are proposed as part of the response, the Incident Commander will instruct the Environmental Unit Leader to develop, for approval by the Unified Command, plans to protect Environmentally Sensitive Areas.~~

Crowley Fuels does not maintain equipment or resources for use of dispersants or *in-situ* burning, and as such does not consider their use in this plan.

PLANS FOR PROTECTING ENVIRONMENTALLY SENSITIVE AREAS

In the event that non-mechanical methods are proposed as part of a response, the IC will instruct the Environmental Unit Leader to develop, for approval by the Unified Command, plans to protect Environmentally Sensitive Areas.

3.8 RESPONSE ACTION CONTRACTOR INFORMATION

Oil spill cleanup equipment and other support services are available through resources at the Fort Yukon Facility.

Facility personnel will initiate the immediate containment actions with the equipment stored at the Facility and any other equipment that can be located near the spill location, such as equipment from Crowley vessels. Facility personnel will clean up small spills. Additional recovery and cleanup of small spills (if necessary), as well as medium and large spills, will be performed by Crowley Fuels. If necessary, Crowley Fuels may also contract Response Action Contractor(s) to perform such actions.

Crowley Fuels could notify and activate Chadux for other than minor operational spills, a spill involving a Crowley barge, and/or if it is determined that additional personnel and equipment are or may be needed. This activation is determined at the time of the spill, specific to evaluation of spill conditions existing at the time and the best judgment of the Facility Manager and Crowley Fuels QI/IC. Note that Crowley Fuels will always err on the side of caution in activating Chadux to ensure a rapid response.

Primary Response Action Contractor

Alaska Chadux ~~Corporation~~Network
2347 Azurite Court, Anchorage, AK 99507
24-hour phone: (907) 348-2365 Web Site: ~~http://www.chadux.com/~~http://alaskaosro.org

Chadux is registered with the State of Alaska as a RAC. Information on the manufacturer's rated capacities of Chadux equipment is contained in the Chadux Response Manual and is included at the end of the equipment inventory lists posted on the Internet at:

~~http://www.chadux.com/equipment~~ https://alaskaosro.org/capabilities/equipment/

Chadux equipment located in Anchorage is packaged in order to facilitate aircraft transportation to the spill site (see Section 1.5.2, Response Action Contractor (RAC) Mobilization, and Table 1-2 in Section 1.5 Deployment Strategies for estimated transport times and mobilization).

In addition, response services provided by the ~~International Bird Rescue~~International Bird Rescue (IBR) and Alaska SeaLife Center for Wildlife response are available through Chadux.

O'Briens Response Management is under contract to provide support to the Crowley Fuels IMT, as necessary (see ~~Section 3.3, Command System)~~Section 3.3, Command System). In the event that Crowley Fuels is required to participate in an ADEC-required spill exercise, Crowley Fuels Response Action Contractors and O'Briens RM may be called and requested to respond and provide support during such exercise.

O'Briens Response Management (24/7 Command Center)
2000 Old Spanish Trail, Suite 210, Slidell, Louisiana USA 70458
24-hour phone: (713) 470-~~0359~~ 0330 – dedicated Crowley Fuels Number; (985) 781-0804
Fax: (985) 781-0580

Anchorage Office~~, PMB 546~~
6160 Carl Brady Drive, Anchorage, AK 99502
Phone: (907)~~ 550-8526~~306-7753 ~~Fax: (907) 550-8502~~
Website: http://www.wittobriens.com/ e-mail: command.center@theobriensgroup.com

Crowley also has a signed Memorandum of Understanding (MOU) with other barge operators in Alaska to supply barges of opportunity for spill response as part of the AK Petroleum Distributors & Transporters Agreement for Compliance; see Tank Barge MOU at end of this section.

Alaska Chadux ~~Corp.~~Network Statement of Contractual Terms – signature page

19. INTEGRATION HEADINGS AND CONSTRUCTION

This agreement together with Exhibit A hereto constitutes the entire agreement between the parties and supersedes all prior and contemporaneous discussions, representations and/or agreements whether written or oral. This agreement may not be modified except through a written instrument signed by both parties. The headings utilized are for convenience of reference only, are not substantive and may not be used to construe this agreement. This agreement shall be construed neutrally, and as the commemoration of mutual agreements of the parties, rather than for or against either party.

20. NOTICES

Except when requesting spill response services or resources as set forth in Sec. 1, all notices, requests and/or other communications provided for or permitted to be given by any party hereunder shall be made in writing to the person designated herein and delivered in person or by mail, facsimile, or other electronic delivery, properly addressed to each party to whom given, with postage and charges prepaid. Notices sent by facsimile, or other electronic delivery shall be promptly confirmed by U.S. mail. A notice shall be deemed given only when receipt by the party to whom such notice is directed is confirmed. A party may change point of contact information with 14 days written notice to the other party.

EFFECTIVE AS OF THE 7th DAY OF February, 2017.

ALASKA CHADUX:

Alaska Chadux Corporation

Matthew J. Melton by Maura Shea
Signature

Matthew J. Melton
General Manager
Name and Title

MEMBER:

Crowley Fuels LLC

Robert E. Cox
Signature

Robert E. Cox
Vice President
Name and Title

	Chadux Representative for Contract Administration
Name	Alaska Chadux Corporation
Contact	Maura Shea, CPA, CIA
Address	2347 Azurite Court, Anchorage AK 99507
Phone	907.348.2358
Fax	907.348.2330
E-mail	mshea@chadux.com
24 HR	907.348.2365

RESPONSE ACTION CONTRACT – CROWLEY FUELS, LLC PAGE 7

STATEMENT OF CONTRACTUAL TERMS

I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

Richard W Meidel Jr

July 23, 2021 | 1:04 PM PDT

Signature Date

Name: Richard W Meidel Jr

Title: VP & GM

FOR: Crowley Fuels LLC
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

Buddy Custard

July 23, 2021 | 1:21 PM PDT

Signature Date

Name: Buddy Custard

Title: President/CEO

For: Alaska Chadux Network
CONTRACTOR

Contract with O'Brien's Response Management *(full contract available on request)*

CONTRACT FOR OIL SPILL RESPONSE SERVICES

This Agreement, dated November 8, 2013, is entered into between **Crowley Maritime Corporation and its subsidiaries including Crowley Foreign Towing, Inc., Crowley Marine Services, Inc., CPD Alaska, LLC, Anderes Oil, Inc., Taku Oil Sales, Inc., Crowley Petroleum Services, Inc., Crowley Puerto Rico Services, Inc., Crowley Technical Management, Inc., and Titan Maritime, LLC**, hereinafter referred to as "Owner/Manager", and **O'Brien's Response Management, L.L.C** hereinafter referred to as "Contractor".

WHEREAS, Owner/Manager owns and/or operates one or more vessels for which Owner/Manager desires to arrange for various vessel security and oil spill response services in the event of an oil spill or the substantial threat of such a spill; and

WHEREAS, Contractor has significant knowledge, experience and expertise in providing, supervising and monitoring oil spill response services;

NOW, THEREFORE, for and in consideration of the covenants and obligations expressed herein, Owner/Manager and Contractor do hereby agree and contract as follows:

Article 1
Agreement as to Services

Owner/Manager hereby engages Contractor to perform and Contractor hereby agrees to provide the following oil spill response services as hereinafter set forth:

____ Qualified Individual Services (U.S.)

____ Qualified Individual Services (California State)

____ Person in Charge Services (Texas State)

____ Qualified Individual Services (Alaska State)

_X_ Incident Management Team Services (Alaska State)

_X_ Response Planning Facilitator (Alaska State)

_X_ Authorized Individual Services (Canada)

_X_ Authorized Person Services (Panama)

_X_ Response Management Services

O'Brien's Response Management, L.L.C. – Crowley Maritime Corporation 1

OWNER/MANAGER: **Crowley Maritime Corporation**		**CONTRACTOR:** **O'Brien's Response Management, L.L.C**
Director, Corporate Safety		Attention: Vice President, Vessel Services
9487 Regency Square Boulevard		103 Morgan Lane, Suite 103
Jacksonville, FL 32225		Plainsboro, New Jersey 08536 USA
		Fax: +1 609 275 9444
Phone: +1 904 727 2149		Phone: +1 609 275 9600

Article 13
Entirety of Contract and Governing Law

This Agreement and the attached schedules set forth the entire agreement and understanding of the parties, supersedes and merges all prior discussions and writings between them and is not subject to modification or interpretation by any agent of the parties other than by written amendment hereto duly executed by the parties in accordance herewith.

This Agreement shall be governed in all respects by the law designated in the applicable geographic area as designated in **Schedule D**.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed in their respective names as of the day and year first written below.

Owner/Manager:

By: _____

Name: Roger King

Title: Director, Corporate Safety

Date: November 8, 2013

O'Brien's Response Management, L.L.C

By: _____

Name: Michael Gallagher

Title: Vice President, Vessel Services

Date: November 11, 2013

Agreement for Compliance for Tank Barge Transport of Non-Persistent Oil in Alaska

9.3 ATTACHMENT 3 – TANK BARGE MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

REGARDING THE USE OF TANK BARGES OF OPPORTUNITY TO PROVIDE TEMPORARY STORAGE

IN SUPPORT OF AN OIL SPILL RESPONSE IN ALASKA

WHEREAS a tank barge casualty or oil spill incident in Alaska could require the use of a tank barge for storage of lightered and/or recovered oil, and

WHEREAS a number of barges operate in Alaska and could provide such assistance, and

WHEREAS these tank barges are owned or chartered by a number of different parties, and

WHEREAS such a need could arise on an urgent basis requiring the use of an available tank barges suitable for the purpose(s) indicated above, regardless of ownership or chartering arrangements:

NOW THEREFORE the signatory party (PARTY) to the Agreement for Compliance (AGREEMENT), representing a tank barge owner, operator, or charterer agrees as follows:

1. Each PARTY to the AGREEMENT will make its owned, operated, or chartered tank barge (the "Assist Barge"), suitable for lightering and/or recovered oil storage, that operates in Alaska available to any other PARTY (the "User") in the event that a tank barge (the "Distressed Vessel"), in Alaska, suffers an accident or oil spill in which the response to that spill or accident would be facilitated by making available for storage the nearest feasible tank barge that is covered by this MOU. The User accepts the Assist vessel on an "as-is, where-is" basis, and such use is subject to, availability, and safety considerations as indicated in Number 2 below.

2. The PARTY agrees to make the Assist Barge available for lightering and/or recovered oil storage in Alaska subject to operational availability, and safety considerations including, but not limited to, all conditions present at the time of the incident and thereafter such as commercial commitments, weather, sea state, location of the Distressed Barge or spill, and other factors that may affect the safety of the Assist Barge and the Distressed Barge and their crews, as determined solely by the Assist Barge's owner or operator.

3. The charter terms for the use of any Assist Barge under this MOU (including compensation and clean-up cost for such use) shall be negotiated in advance or at the time the User desires the Assist Barge. The User remains solely responsible for the disposition of cargo or other material loaded on the Assist Barge.

4. This MOU (and future revisions) will be Attachment 3 to the AGREEMENT and by signing the AGREEMENT each PARTY agrees with the presented MOU terms and conditions.

Page 36 of 40

Agreement for Compliance for Tank Barge Transport of Non-Persistent Oil in Alaska

9.1 ATTACHMENT 1 -- CERTIFICATION OF ACCEPTANCE OF AGREEMENT

We, the undersigned OPERATOR, hereby accept and agree to be bound by the terms of this Agreement for Compliance for Tank Barge Transport of Non-Persistent Oil in Alaska. We also accept and agree to be bound by all attachments, enclosures, references, or other instruments that may be legally subscribed to this AGREEMENT.

Company Name: CPD ALASKA, LLC.

Authorized Signature: Robert E Cox

Printed Name/Title of Signer: Robert E. Cox Vice President

Date: 8 MAY 2015

Page 33 of 40

3.9 TRAINING

All Facility personnel are instructed in company and State oil spill prevention and control procedures pertinent to their duties in accordance with 18 AAC 75.020 and 18 AAC 75.445(j) (see also Section 2.1.2 Prevention Training Program). These personnel are readily available to respond to a spill or accidental discharge. The information contained in this ODPCP will serve as a guideline for training given to employees at the Ft. Yukon Facility.

3.9.1 Training Objectives

Crowley Fuels has training aimed at prevention and at response. With respect to prevention, all individuals are operationally trained to be the “Person in Charge” during an oil transfer. A designated "Person in Charge" must train each new employee. Prevention training includes, but is not limited to, the following:

1. thorough knowledge of reporting procedures in the case of a spill,
2. review of this contingency plan (ODPCP/FRP) and response procedures,
3. thorough understanding of the tank farm piping system and valves,
4. types of valves and how they operate,
5. what to visually check during inspections,
6. thorough knowledge of transfer systems and the pump house,
7. competent knowledge of the “Declaration of Inspection” document, and
8. verification of contingency plans (ODPCP),
9. minimum of 48 hours of transfer operations before becoming PIC, and
10. thorough knowledge of reporting procedures in the case of a spill.

Crowley Fuels has trained all Facility personnel to the Hazardous Materials Technician (HMT) responder level. The HMT level requires a minimum of 24 hours of emergency response training in the following topics:

- Know how to implement the Fort Yukon Facility response plan. (Part 1 Response Action Plan, ODPCP/FRP)
- Know the classification, identification and verification of known and unknown materials by using files, survey instruments and equipment. (see SDS; maintained in a binder in the facility office)
- Be able to function within an assigned role in the incident command system. (~~Section 3.3 Command System~~Section 3.3 Command System, ODPCP/FRP)
- Know how to select and use proper specialized chemical personal protective equipment provided to the HMT.
- Understand hazard and risk assessment techniques.
- Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available at their operations. (refer to Alaska ~~*STAR Manual*~~*STAR Manual*)
- Understand and implement decontamination procedures.
- Understand termination procedures.
- Understand basic chemical and toxicological terminology and behavior.

Crowley Fuels will certify that personnel assigned to key response levels have received 24-hour HAZWOPER training. Personnel with HAZWOPER training will receive the requisite OSHA 8-hr. annual refreshers. Copies of certificates shall be kept with initial and refresher training documentation at the facility and with the Operations Integrity Department in Anchorage.

Initial training and the method used to satisfy the refresher training/competency demonstration requirement will be documented in writing for each employee trained for spill response. This documentation shall include workbooks and the method used to demonstrate an employee's competence.

Contract personnel used during a spill response will have received the appropriate training as required by State and Federal regulations.

In addition to numerous aspects of spill prevention and response training received through HAZWOPER training and other courses, Crowley Fuels Facility personnel in Alaska receive a classroom course that reviews the responsibilities of personnel to implement this oil spill contingency plan. Class participants are given a copy of this ODPCP that serves as the basis for this course. The training program emphasizes the following:

1. General Information (ODPCP Part 1, Response Action Plan)
2. Emergency Actions (ODPCP Section 1.1, Emergency Action Checklist)
3. Spill Response Strategies (ODPCP Section 1.5, Deployment Strategies, and Section 1.6, Response Strategies)
4. Spill Prevention Measures, including inspections/maintenance (ODPCP Part 2, Prevention Plan)
5. Facility Information (ODPCP Section 1.8, Facility Description, and ~~Section 3.1, Facility Description and Operational Overview~~Section 3.1, Facility Description and Operational Overview)
6. Spill Response Teams and Roles (ODPCP ~~Section 3.3, Command System~~Section 3.3, Command System)
7. Training and Drills (ODPCP ~~Section 3.9, Training~~Section 3.9, Training)
8. Other Information (ODPCP Part 3, Supplemental Information)
9. Acronyms and Definitions (ODPCP ~~Section 3.13, Acronyms and Definitions~~Section 3.13, Acronyms and Definitions)
10. Review Questions

This training and hands-on exercises, including actual deployment of equipment in Ft. Yukon, are conducted at least once a year. Training, exercise, and meeting logs are available from the facility upon request.

3.9.2 Qualified Individual Training

The Crowley Fuels Qualified Individuals (Qls) have received training in accordance with 33 CFR 154.1026. This training includes:

- Knowledge and implementation of Response Plan
- Activation of resources listed the plan
- Contracting of oil spill removal organizations
- Obligation of funds to carry out response activities

In order to act as part of the Unified Command or as Liaison with the FOSC, the QIs have also received extensive Incident Command System (ICS) training. This training includes:

- Overview of Federal Legislation, OPA'90 & PREP
- Role and Responsibility of the Qualified Individual
- Role and Responsibility of the Incident Commander
- Command Staff Roles and Responsibilities
- General Staff Roles and Responsibilities

- Unified Command
- Planning Cycle

In addition to formal classroom training, the QIs also participate in annual IMT Tabletop Exercises, actual responses and unannounced exercises.

3.9.3 Exercise Procedures

Spill response drills and exercises will be held in accordance with state and federal regulations. Crowley has elected to participate in the National Preparedness Response Exercise Program (PREP) for OPA '90 compliance. The exercises required, as part of PREP will be performed on a monthly, quarterly or annual basis in order to meet or exceed the requirements. These exercises will simulate initial spill response actions, shipboard/marine containment and recovery actions and proper handling of waste and disposal procedures. The exercises will be designed to ensure that the entire FRP is exercised over a three (3) year period. Tug, barge and administrative personnel will participate in the exercises. When appropriate, the exercises will include participation of the appointed Response Action Contractor as well as State and Federal officials.

Crowley Fuels will perform the following exercises under the guidance of the PREP guidelines on an annual basis.

- Spill Incident / Qualified Individual Notification Exercise = quarterly
- Emergency Procedures Exercises = quarterly
- Facility Equipment Deployment Exercise = semi annually
- Spill RAC/OSRO-owned Equipment Deployment Exercise = annually (Chadux)
- Spill Management Team Tabletop Exercise = annually (in a 3-year period, at least one of these exercises must include a WCD scenario)
- Internal Unannounced Exercise = annually, one of the above will be unannounced (in combination with one of the above exercises)

As directed by the COTP, the Facility participates in unannounced exercises to test notification and equipment deployment for response to an average most probable discharge. The COTP may initiate unannounced exercises no sooner than 3 years from the date of the last COTP-initiated unannounced exercise.

The Facility will also participate in Area Exercises as directed by the FOSC/SOSC. The Area exercises will involve equipment deployment to respond to the scenario developed by the Area Exercise Team, of which the Facility operator will be a member. After participating in an Area Exercise, the Facility will not be required to participate in another Area Exercise for at least six (6) years.

3.9.4 Documentation

Training and spill response briefing logs are kept in retrievable form on file at the Facility or with the Operations Integrity Department in Anchorage. Each participant will sign and date the logs. Training records, including the name and date of the training and a summary of the contents, shall be maintained for five (5) years from the completion of training and are available to the USCG and ADEC upon request.

Detailed and complete records, sufficient to document Facility personnel and spill management team participation during drills performed at the Facility shall be kept in retrievable form at the Facility and at the Crowley Fuels Operations Integrity Department Office in Anchorage Records of exercises are maintained in accordance with 18 AAC 75.445(j) and 75.020(e) for a minimum of five (5) years and made available to the Department upon request.

In addition, documentation of the participation of any local spill responders and other response organizations and resources identified in the ODPCP (i.e., RAC/OSRO) shall be maintained at the same offices for a period of five (5) years from the completion of an exercise.

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3.10 PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

Specific sensitivities, priorities, and response strategies for the region are included in the Sensitive Areas Section of the Interior Subarea Contingency Plan and the Alaska Regional Response team (ARRT) Wildlife Protection Guidelines Priorities for protection would be set in consultation with the ADEC and natural resource trustees through the Unified Command.

The best source of information on sensitive areas and resources at risk during an incident would be the federal/state and local natural resource managers. These sources provide local experience and expertise, as well as the most up-to-date information regarding these resources. ADF&G, ADNR, U.S. Fish and Wildlife Service, and other wildlife trustee agencies can provide a wealth of local wildlife and habitat information (see Section 1.2, Reporting and Notification, for contact information).

Information regarding Geographic Response Strategies for the Alaska ~~Interior~~ Inland ACP is available on the Internet at: http://dec.alaska.gov/spar/ppr/grs/int/home.htm

- ADF&G, ADNR Land Management, and other Alaska sensitive area maps can be obtained on the Internet at: http://dnr.alaska.gov/MapAK/. Information acquired through Alaska Mapper using the DNR Land Administration System (http://dnr.alaska.gov/projects/las/) should be verified by contacting the Lands Section per contact information found in 1.2 of this plan.

Prevention and Emergency Response Plan Maps by ~~Subarea~~ Regions
http://www.asgdc.state.ak.us/maps/cplans/subareas.html

Geographic Response Strategies (GRS) for Alaska are available on the Internet at:
https://dec.alaska.gov/spar/ppr/contingency-plans/response-plans/tools/

ADF&G, ADNR Land Management, and other Alaska sensitive area maps can be obtained on the Internet at:

Prevention and Emergency Response Plan Maps by ACP
https://dec.alaska.gov/spar/ppr/contingency-plans/response-plans/tools/

The following web sites also provide information on resources at risk:
ADF&G — http://www.adfg.alaska.gov/
ADNR — http://dnr.alaska.gov/

~~The following web sites also provide information on resources at risk:~~
~~ADF&G — http://www.adfg.alaska.gov/index.cfm?adfg=maps.mesamaps~~
~~ADNR — http://dnr.alaska.gov/~~

- Invasive cleanup efforts that are not “Generally Allowed Uses on State Lands” require the application and approval of a Land Use Permit (LUP). To determine if a permit application is necessary, see the Generally Allowed Use on State land fact sheet at: http://dnr.alaska.gov/mlw/factsht/land_fs/gen_allow_use.pdf. Plan users can access LUP applications at: http://dnr.alaska.gov/mlw/forms/land/LUP_app.pdf and contact DNR-Lands for assistance per contact information provided in 1.2 of this plan.

3.10.1 Characteristics of Oils Stored at the Facility

All of the products stored at the Facility are non-persistent oils, as described in the 33 CFR 155.1020. SDS with chemical data on these products is on file at the Facility office.

Highly toxic — 18 AAC 75.640

High degradability — 18 AAC 75.640

High dispersability — 18 AAC 75.660

Toxicity through contact or ingestion would have an adverse effect on local organisms. Due to the properties of the products stored at the Facility these effects should be short lived. The oil will become less toxic to the environment as it is exposed to the open atmosphere, since the most toxic components of the products (Benzene, Xylene, Tolulene, Hexane) are subject to rapid evaporation and dispersion. These products have a very low tendency to become soluble in water and have a high rate of evaporation. Natural degradation and aggressive cleanup activities should minimize environmental impact.

3.10.2 Environmental Sensitivities

HUMAN ACTIVITIES

Most Fort Yukon residents are descendants of the Yukon Flats, Chandalar River, Birch Creek, and Black River and Porcupine River Gwich'in tribes. Subsistence foods contribute largely to villager's diets. Subsistence use of the natural resources found along the Yukon River (including the river itself), are heavily utilized for food and supplies by the many villagers who reside in Interior Alaska. Annual summer fish harvests provide for year-round food supplies both for humans and their dogs. Hunting also provides subsistence materials for Interior Alaska residents, and is widely practiced. The economy of Fort Yukon is based on government and retail services. One person holds a commercial fishing permit. The city, state, federal agencies and the native corporation are the primary employers in Fort Yukon with the school district being the largest employer. Residents rely on subsistence foods – salmon, whitefish, moose, bear, caribou, and waterfowl provide most meat sources. *(Reference: Alaska Community Information Database online)*

As in other parts of Alaska, separating residents' subsistence activities from recreational activities is difficult. The river areas receive much use for skiing, hunting, dog mushing, and snowmobiling in the winter, and for fishing, hunting, hiking and boating in the warmer months. Non-resident recreational use of the river areas occurs predominantly during the summer, i.e., hiking, boating.

LOCAL ENVIRONMENTAL SENSITIVITY DATA

The Yukon River, which flows 1,400 miles through the state and another 475 miles through Canada, is Alaska's longest and most important river. It provides a strategic route for tugs and barges during summer months as they bring supplies to the more than three-dozen interior villages scattered along the banks of the Yukon, Tanana, and Koyukuk Rivers. The river is navigable from its mouth at the Bering Sea to Whitehorse in Canada by small or flat-bottom boats and barges. Native villagers travel the river extensively -- by boat during the ice-free months, and by dog sled and snowmobile during winter months.

The community is situated within the Yukon Flats National Wildlife Refuge, an area encompassing approximately 8,630,000 acres (see ~~Figure 3-4~~Figure 3-4). The flat wetlands here consist of more than 40,000 lakes, ponds, and sloughs along the river, extending from south of Fort Hamlin to Twenty-two Mile Village (southeast of Fort Yukon). It is one of North America's most productive wildlife habitats (i.e., 2 million ducks – Alaska's largest density). The flat wetlands provide many wildlife populations with important habitat and resources (for feeding, nesting, spawning, grazing, etc.) and, therefore would likely be adversely affected by the spill of oil. The refuge is largely Government owned and contains no roads. The US Fish & Wildlife Service maintains a website for Yukon Flats National Wildlife Refuge Area at:

http://www.fws.gov/refuge/yukon_flats/

SHORELINES

The ever-changing shorelines of the Yukon River and its tributaries vary from meandering, flat flood plains, with vast wetlands and marshes to abrupt rocky cliffs of considerable height. Most predominate is the low-lying variety, accompanied by many ponds, marshes, and potholes. The flood plain of the Yukon Flats National Wildlife Refuge area typifies this terrain. Because of current flow, any oil spill along the river would remain in the river channel and would not impact the wetlands directly.

Seasonal flooding and ice jams contribute to a natural deposit and erosion cycle, which continually alters the river's channels and banks. The swampy nature of its surrounding terrain is an indicator of permafrost, which lies beneath; water is unable to drain into the ground.

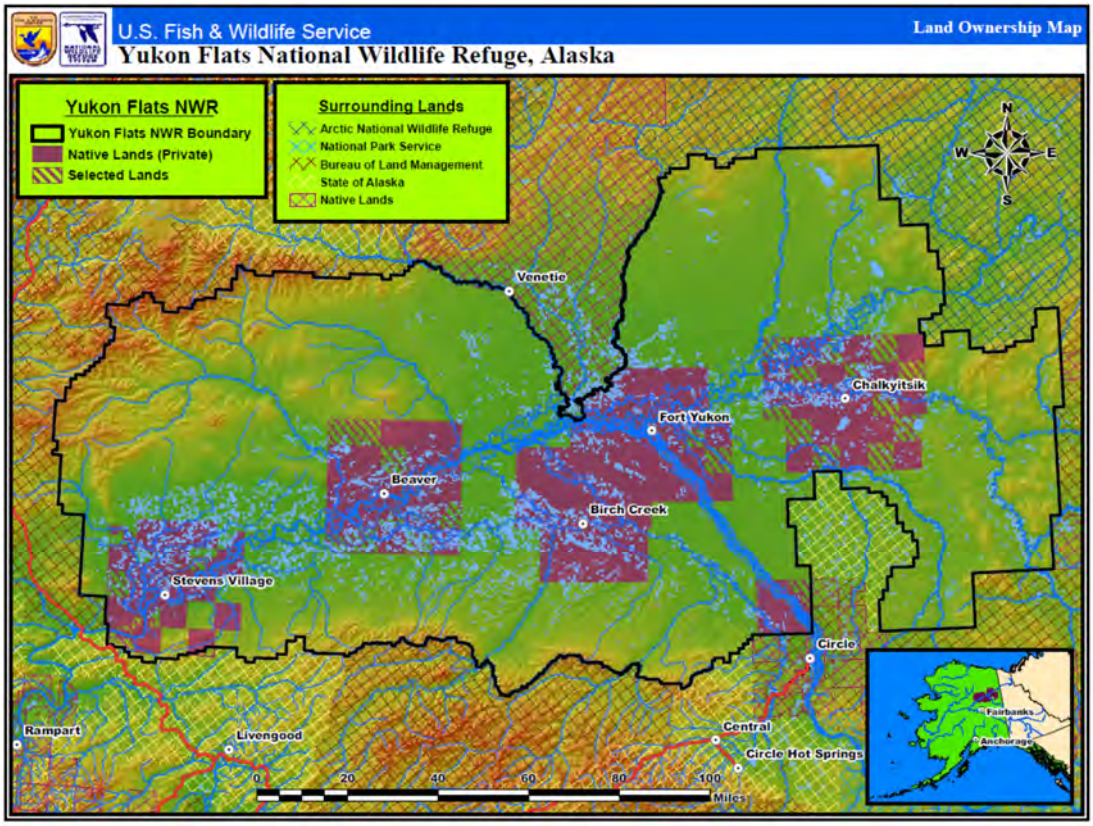
HABITAT CONSIDERATIONS

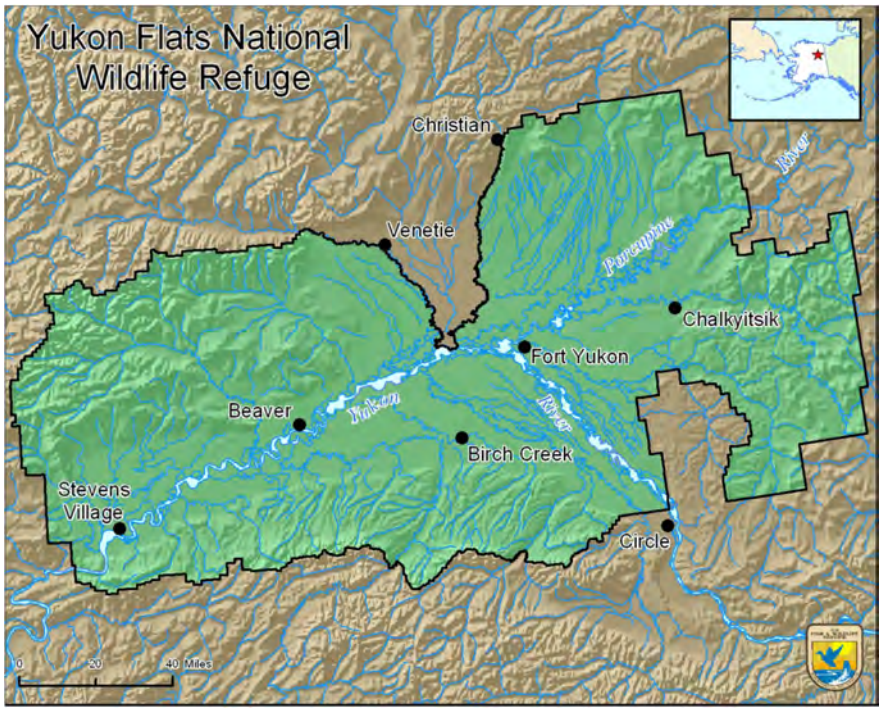
The fish, wildlife and plants of the area constitute subsistence resources, which provide direct benefits to the residents. Extreme caution should be used in all operations to protect resources and to ensure habitat is not disturbed.

VEGETATION

Local vegetation consists primarily of grasses, sedges and low-lying shrubs. All measures should be taken to preserve vegetation because it stabilizes the soil by its roots. In any cleanup the use of equipment and access to the sill site must be well thought out to minimize damage.

Figure 3-4 Yukon Flats National Wildlife Refuge





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E-Mail: yukonflats@fws.gov

FISH

Sport and subsistence fishing activities predominate in the Yukon River and its tributaries. Most residents of interior Alaska rely heavily upon fish resources for subsistence, providing food for both humans and their dogs. Such species as Salmon, Grayling, Burbot, Northern Pike, Trout, and Whitefish are harvested. Spawning King and Chum are found in most of the tributaries, while Silvers spawn primarily in the Tanana River. Chum runs typically occur two times per year — summer and fall; they travel well up the Yukon and Porcupine Rivers into the Yukon Territory.

BIRDS

Nesting and feeding waterfowl and shorebirds are found in large numbers at most of the National Wildlife Refuge wetlands areas. Most waterfowl are only summer residents of Interior Alaska, (arriving in May and leaving in September) with typical species including Mallards, Pintails, American Widgeons, Lesser Scaups, Sandhill Cranes, Grebes, Trumpeter Swans, Whistling Swans, Lesser Canada Geese, White-fronted Geese, Arctic Loons, Common Loons, and Goldeneyes. Of particular importance to note is the large density of ducks at the Yukon Flats site (in excess of two million — the largest group in Alaska).

Shorebird species include Golden Plovers, Spotted Sandpipers, Dunlins, Yellowlegs, Phalaropes, Gulls and Terns.

Small land birds including Longspurs, Finches, Thrushes, Warblers, Blackbirds, Sparrows and Juncos also utilize many of these same areas for breeding and nesting, making use of the water environment to raise their young.

Some twenty species of raptors inhabit the interior of Alaska; eighteen of them nest there. Widely distributed along the Yukon and its major tributaries are such varieties as the Goshawk, Marsh Hawks, Red-tailed Hawks and Great-horned Owls.

Bluffs and cliffs along the river (particularly the Yukon and Charley Rivers) provide important nesting habitat for the endangered Peregrine Falcon. They may also be found nesting in the Yukon Flats area.

There are nine bird species of conservation concern (Federal)/species of greatest conservation need (State) in the vicinity of Fort Yukon. The following is a list of common names and associated seasonality:

NAME	SEASON(S)
Bald Eagle	Year-round
Fox Sparrow	Breeding
Lesser Yellowlegs	Breeding
Olive-sided Flycatcher	Breeding
Peregrine Falcon	Breeding
Rusty Blackbird	Breeding
Short-eared Owl	Breeding
Upland Sandpiper	Breeding
Whimbrel	Breeding

A Map of Waterfowl Concentration Areas in the region is included as ~~Figure 3-5~~Figure 3-5.

MAMMALS

Large mammals frequenting the Yukon River area of interior Alaska include Caribou, Brown/Grizzly Bear, and Moose. Brown/Grizzly Bear and Black Bear are common throughout the area, frequently found feeding on salmon as they migrate upriver to spawn. Moose graze from lowland marshes to alpine meadows (preferring lowland forests and river bars). Areas of high use by moose herds include the Koyukuk River drainage, and the Innoko and Yukon Flats National Wildlife Refuges. Furbearers include the following: Lynx, Fox, Coyote, Snowshoe Hare, Lemming, Beaver, Ermine and Wolf. Carnivores would be sensitive to oil because they may forage on beaches and could consume oil-contaminated carrion, as well as soil their fur.

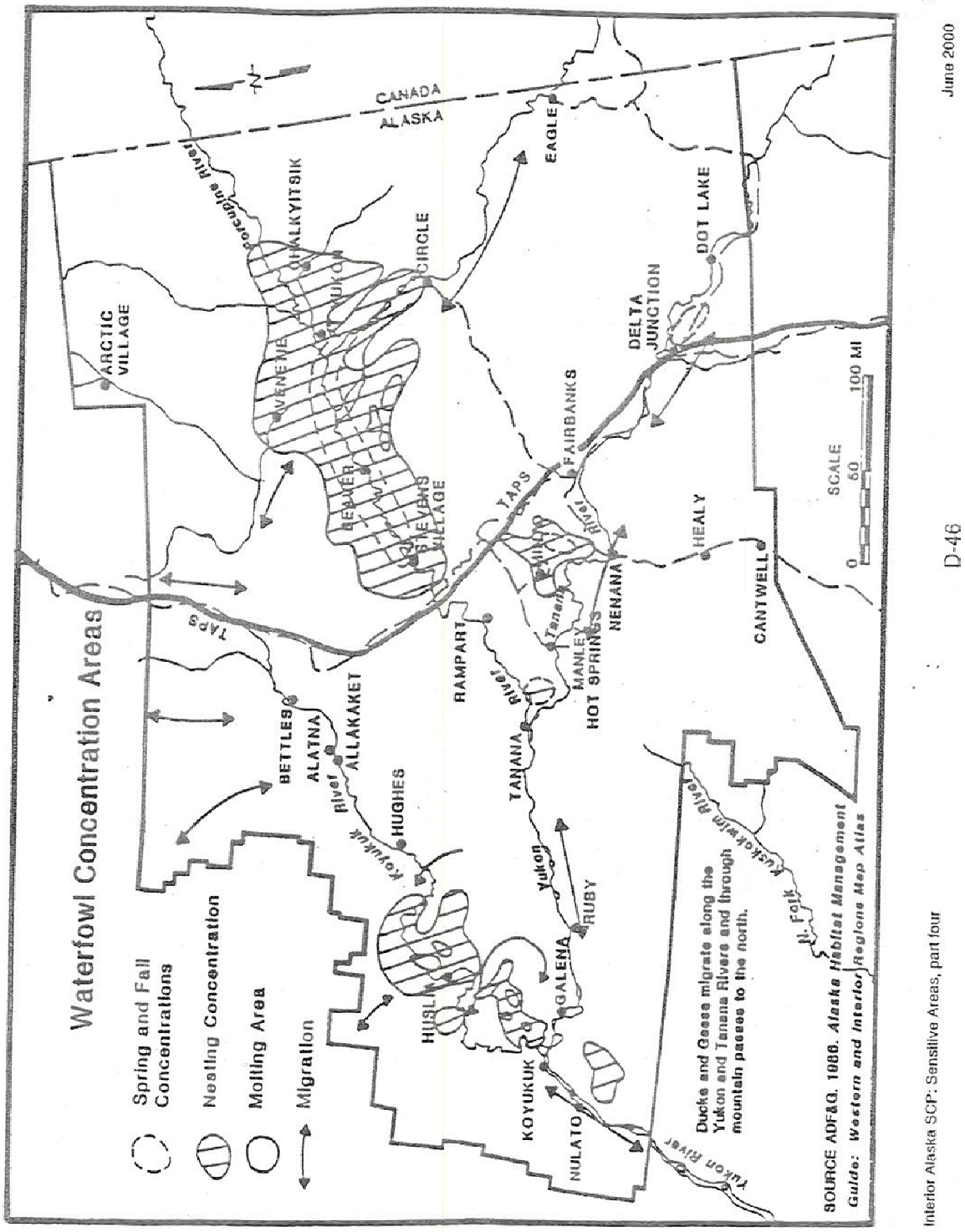
Many of these species are interdependent upon each other as food resources and local trappers depend heavily upon them for their fur. Concentrations of particular importance may be found in the areas of the Yukon Flats.

Numerous animals forage and feed along the river shoreline, and, therefore, may be subject to spill related environmental disturbances. Damage may result if species become oiled or ingest contaminated prey or vegetation. All oiled debris and carrion should be removed as soon as possible to prevent contamination.

ENDANGERED SPECIES

No rare or endangered species are known to be residents in Fort Yukon's immediate vicinity; however, consideration for and protection of the surrounding ecosystems will be given in the event of such a discharge.

Figure 3-5 Map of Waterfowl Concentration Areas



HISTORIC

The Yukon River was used for centuries by Eskimos and Athabascan Indians, both as a means of travel and for its abundant natural resources.

Caution should be used in any cleanup operation in order to not disturb or impact any historical or archaeological sites during response. Part 5 of the Alaska Regional Contingency Plan outline the Federal On-Scene Coordinator responsibilities for protecting cultural resources and provides an expedited process for compliance with Section 106 of the National Historic Preservation Act during the emergency phase of a response. If there is no FOSC, then Crowley Fuels will coordinate with the SOSC, ADNR Office of History and Archaeology (OHA), and other appropriate land managers. If previously undiscovered artifacts or areas of historic, prehistoric, or archaeological importance are encountered, the DNR/Division of Parks and Outdoor Recreation/Office of History and Archaeology shall be notified (907-269-8721).

A copy of the AK Cultural Resources Protection Implementation Guidelines, which outline these roles and responsibilities, are available on the Internet at:

http://dec.alaska.gov/spar/PPR/plans/uc/Annex%20M%20(Jan%2010).pdf

3.10.3 Seasonal Sensitivity

From mid-September through late May the Yukon River is ice covered and environmentally this would be the least sensitive time of the year. Locally set net fishing begins after breakup and continues until freeze up.

MITIGATING SEASONAL EFFECTS

- Extreme wind may accelerate natural evaporation rates, decreasing toxicity
- Fast silty water conditions may increase natural dispersion rates
- Extreme cold may slow the rate of evaporation
- Ice and snow conditions may slow the spread of discharged product
- Heavy rainfall may increase natural dispersion and decrease toxicity by dilution

3.10.4 Identification of Priority Areas

PRIORITY AREAS AND PROTECTION STRATEGIES

Riverbanks at Ft. Yukon are accessed by boats, ATVs, by foot, and in some areas by vehicle. Containment at the spill site and diversion booming are priority response tactics using call-out vessels, containment boom, skimmers, sorbents and facility personnel. See equipment lists in ~~Section 3.6~~Section 3.6, Response Equipment, and Section 1.6.4, Protection of Environmentally Sensitive Areas, for prioritization criteria and the Interior Alaska subarea plan.

In planning response actions, such as setting collection booms to concentrate oil for mechanical recovery, avoid collection sites that are apparent sensitive areas, i.e., stream mouths, marsh areas, freshwater intakes, set net and subsistence use sites, etc. These same kinds of sites can be protected from the effects of discharged oil by exclusionary or diversionary booming (see Section 1.6.5 Containment and Control Strategies).

3.10.5 Protection of Wildlife

The Alaska Regional Response Team's (ARRT) *Wildlife Protection Guidelines* describe response strategies to protect wildlife during an oil spill. These strategies are prioritized into Primary, Secondary, and Tertiary. The Primary response strategy emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially affected species and/or their habitat.

In addition, the primary response strategy includes the removal of oiled debris, particularly contaminated food sources (such as dead wildlife carcasses) both in water and on land. Permits and authorization must be obtained from the appropriate wildlife agency prior to the collection of any

carcasses and procedures will follow incident specific carcass collection plans. Supplies needed for collection and storage of dead; oiled wildlife can be found in the ARRT Wildlife Protection Guidelines.

The Secondary response strategy emphasizes keeping potentially affected wildlife away from oiled areas using active and passive deterrent techniques. Active techniques may include auditory methods (e.g., air horns). Passive hazing equipment for birds includes mylar tape and scare-away devices. The Tertiary response strategy, which is a last-resort strategy, addresses the potential capture and treatment of oiled wildlife.

Primary (carcass collection), secondary and tertiary strategies require approval of an action plan and special permits from the appropriate wildlife agencies and the Unified Command. Authorization to conduct wildlife response strategies is required prior to implementation. See the ARRT *Wildlife Protection Guidelines* for information on permit requirements and how to obtain authorization.

~~The Alaska Regional Response Team's *Wildlife Protection Guidelines* at http://dec.alaska.gov/spar/PPR/plans/uc/Annex%20G%20(Oct%202012).pdf describes response strategies to protect wildlife during an oil spill. These strategies are prioritized into Primary, Secondary, and Tertiary.~~

~~The Primary response strategy emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially affected species and/or their habitat (see Section 1.5 Deployment Strategies and Section 1.6 Response Strategies).~~

~~In addition, the primary response strategy includes the removal of oiled debris, particularly contaminated food sources (such as dead wildlife carcasses) both in water and on land. Supplies needed for collection and storage of dead, oiled wildlife include: rubber gloves, plastic bags, data sheets, and freezers. The Data Sheet for collected dead, oiled wildlife is provided in Figure 3-6.~~

~~The Secondary response strategy emphasizes keeping potentially affected wildlife away from oiled areas through the use of deterrent techniques. These techniques may include visual methods, auditory methods, a combination of both, and other methods.~~

~~The Tertiary response strategy, which is a last-resort strategy, addresses the potential capture and treatment of oiled wildlife. Typically, only a small percentage of wildlife that are highly sensitive to the effects of oiling (e.g., birds and otters) and are oiled will be captured. Of those, only a portion will survive the treatment process. The Data Sheet for collected live, oiled wildlife is available in Appendix 11 of the ARRT Wildlife Protection Guidelines.~~

~~The secondary response strategy emphasizes keeping potentially affected wildlife away from oiled areas through the use of deterrent techniques. These techniques may include visual methods, auditory methods, a combination of both, and other methods.~~

~~The tertiary response strategy, which is the last resort strategy, addresses the potential capture and treatment of oiled wildlife. Typically, only a small percentage of wildlife that are highly sensitive to the effects of oiling (e.g. birds) and are oiled will be captured. Of those, only a portion will survive the treatment process.~~

~~Note that both secondary and tertiary strategies require approval of an action plan and special permits from the appropriate wildlife agencies and the FOSC/SOSC. Checklists for requesting authorization to initiate secondary and/or tertiary wildlife response activities (required prior to any hazing, collection, or holding of wildlife) are found on the Alaska Spill Response Permits Tool website. Agencies from which permits are required to do these activities are shown in Table 3-3 (contacts provided in Section 1.2 Reporting and Notification and on the permit applications).~~

~~Response activities will be conducted in a manner that minimizes adverse effects to wildlife. Sections 301.B.1 and 302.B.1 of the ARRT Wildlife Protection Guidelines contain general suggestions~~

~~to minimize adverse effects to wildlife from response activities. The precise techniques will need to be identified on a spill-specific basis.~~

Table 3-3. State and Federal Permits and/or Authorizations Required for Hazing, Collecting, or Holding Live Animals[1]

State and Federal Permits and/or Authorizations Required for Hazing, Collecting, or Holding Live Animals						
SPECIES	ADFG Permit Required to		USFWS Permit Required to		NMFS Permit Required to	
	Collect &	Haze	Collect &	Haze	Collect &	Haze
Migratory Birds	No[2]	Yes[3]	Yes[4]	No[5]	No	No
Sea Otters, Walrus	No	No	Yes[4]	Yes	No	No
Whales, Porpoises, Seals, and Sea Lions	No[2]	No[2]	No	No	Yes[4]	Yes
Terrestrial Mammals	Yes	Yes	No	No	No	No
Endangered or Threatened Species	No	No	Yes	Yes	Yes	Yes

[1] Source: ARRT Wildlife Protection Guidelines for Alaska.
[2] An ADFG permit is also required to collect, hold, or haze any species on the State endangered species list.
[3] Passive hazing (e.g., balloons, scarecrows, Mylar tape) does not require an ADFG permit.
[4] Includes salvage of dead, oiled wildlife.
[5] A FWS permit is required for deterring eagles and/or migratory bird species listed as threatened or endangered under the Endangered Species Act.

CROWLEY FUELS ACTIVITIES

If oil spreads over a large area or reaches the River, attempts will be made to keep waterfowl and mammals away from oiled areas using generally accepted methods. Permits are required prior to any hazing, collection, or holding of wildlife (reference the Alaska Spill Response Permit Tool at http://dec.alaska.gov/Spar/ppr/permits/index.htm). Crowley Fuels activities may comprise collaboration and coordination of hazing and carcass collection with State and Federal officials and response contractors (IBR, available through contract with Chadux). The Environmental Unit Leader will manage Crowley Fuels wildlife activities.

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3.11 ADDITIONAL INFORMATION

(RESERVED)

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3.12.1 Area Contingency Plans

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Area Contingency Plans to the Alaska Regional Contingency Plan of the State of Alaska
Four (4) Area Contingency Plans have been developed that provide area-specific information for the various geographical regions of Alaska. The Area Plan that applies to the Fort Yukon region is the:

- Alaska Interior Area Contingency Plan for Oil and Hazardous Substance Discharges/Releases

The Area Contingency Plans are available on the Internet at:

- https://dec.alaska.gov/spar/ppr/contingency-plans/response-plans/tools/

AK region maps (MESA, ESI, Land Management, etc.) are available on the Internet at:

- http://dec.alaska.gov/spar/ppr/plan.htm

3.12.2 Additional References

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Other useful reference information may be found at:

Alaska Department of Environmental Conservation — Division of Spill Prevention and Response:

- http://dec.alaska.gov/Spar/index.htm

Alaska Department of Natural Resources:

- http://dnr.alaska.gov/

NOAA spill tools web site:

- http://response.restoration.noaa.gov/

U.S. Coast Guard District 17:

- http://www.uscg.mil/d17/

Alaska Oil Spill Response Permit Tool (Computer-based program that can be run online to facilitate the process of identifying and filing permit forms required for response activities in Alaska):

> Alaska's current statewide oil spill response system involves a complex assortment of permits, forms, and applications that must be prepared and filed during various phases of the response. The Alaska Oil Spill Permits Tool provides streamlined access to over 40 documents. The Permit Tool allows the user to locate the appropriate form by sorting the permits either by the agency that requires the form, or by the type of oil spill response activity that would necessitate the permit.
>
> The Alaska Oil Spill Permit Tool was developed through a cooperative work group process, including representatives of the state and federal agencies whose permit forms are included in the tool, as well as representatives from the oil industry and oil spill response organizations.
>
> The Alaska Oil Spill Permits Tool can be accessed at:
>
> - https://dec.alaska.gov/spar/ppr/response-resources/permits-tool/

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3.13 ACRONYMS AND DEFINITIONS

3.13.1 Acronyms

AAC	Alaska Administrative Code
ACC	Alaska Chadux ~~Corporation~~Network
ACP	Area Contingency Plan
ADEC	Alaska Department of Environmental Conservation (State Agency)
ADF&G	Alaska Department of Fish and Game (State Agency)
ADNR	Department of Natural Resources (State Agency)
AK	Alaska
AMD	Average Most Probable Discharge
API	American Petroleum Institute
ARRT	Alaska Regional Response Team
ASLC	Alaska SeaLife Center
CFR	Code of Federal Regulations
CMC	Crowley Maritime Corporation
CMS	Crowley Marine Services, Inc.
COTP	Captain Of The Port (Coast Guard)
CWA	Clean Water Act
DOT	Department of Transportation
DPOR	Division of Parks and Outdoor Recreation (ADNR)
EDRC	Effective Daily Recovery Capacity
EMD	Emergency Management Division
EPA	United States Environmental Protection Agency
FOSC	Federal On-Scene Coordinator
FWPCA	Federal Water Pollution Control Act
HMT	Hazardous Materials Technician
IBR	International Bird Rescue
IC	Incident Commander
ICS	Incident Command System
IMT	Incident Management Team
LEPC	Local Emergency Planning Committee
LLC	Limited Liability Company
MESA	Most Environmentally Sensitive Area
MMPD	Maximum Most Probable Discharge
MOU	Memorandum of Understanding
MS	Marine Sector
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
NRT	National Response Team
NVIC	Navigation and Vessel Inspection Circular (USCG publication)

ODPCP	Oil Discharge Prevention and Contingency Plan
OHA	Office of History and Archaeology (ADNR)
OPA '90	Oil Pollution Act of 1990
OSIC	On-Scene Incident Commander
PFD	Personal Floatation Device
PIC	Person In Charge of vessel or barge
PPE	Personnel Protective Equipment
PREP	National Preparedness for Response Exercise Program
QI	Qualified Individual
RAC	Response Action Contractor
RCP	Federal Region Oil and Hazardous Substances Pollution Contingency Plan
RCRA	Resource Conservation and Recovery Act
RMO	Regional Marine Operations
RPS	Response Planning Standard
RRT	Regional Response Team
SCP	Sub-area Contingency Plan (10 regional plans that supplement the AK Unified Plan)
SDS	Safety Data Sheets (Global Harmonization System)
SHPO	State Historic Preservation Office (or Officer)
SOSC	State On-Scene Commander
SRT	Crowley Marine — Spill Response Team
SSC	Scientific Support Coordinator
TOM	Terminal Operations Manual
UHF	Ultra High Frequency Band Radio
USC	United States Code
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VHF	Very High Frequency Band Radio
WAK	Western Alaska
WCD	Worst Case Discharge

PART 4 — APPLICABLE BEST AVAILABLE TECHNOLOGY ANALYSIS

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PART 4. APPLICABLE BEST AVAILABLE TECHNOLOGY ANALYSIS

Consistent with the requirements of 18 AAC 75.425 (e)(4)(A) and (B), the following technologies have been identified as applicable to the Fort Yukon Facility operations. These technologies are not subject to response planning or performance standards specified in 18 AAC 75.445(k)(1) and (2).

COMPONENT	CROSS REFERENCE
Analysis required per 18 AAC 75.425(e)(4)(A)(ii)	
Oil Storage Tank Requirements – cathodic protection [18 AAC 75.065(h)(2),(i)(3), or (j)(3)] 065(h) applies to tanks placed in service before May 14, 1992	Section 2.1.7, 3.1 NA
Oil Storage Tank Requirements – leak detection system [18 AAC 75.065 (j)(4)]	Section 2.1.9, 2.5.
Oil Storage Tank Requirements – high liquid levels [18 AAC 75.065(k)(4]	See Table 2-1 and Section 4.1 and 2.5 NA-Facility has (k)(1) and (k)(2)
Facility Piping Requirements – metallic facility oil piping corrosion control program [18 AAC 75.080(b)]	Section 4.2 and 2.1.9
Facility Piping Requirements – corrosion protection [18 AAC 75.080(d) and (k)(1),(*l*)]	Section 4.3 and 2.1.9
Facility Piping Requirements –cathodic protection system survey [18 AAC 75.080(k)(2)]	Section 4.6 and 2.1.9
Analysis required per 18 AAC 75.425(e)(4)(A)(i)	
Contingency Plan Contents – communications [18 AAC 75.425(e)(1)(D)]	Section 4.7 and 1.4
Contingency Plan Contents – stop discharge at source and prevent the further spread [18 AAC 75.425(e)(1)(F)(i)]	Sections 4.8, 1.6.1, and 1.6.6
Contingency Plan Contents – surveillance and tracking [18 AAC 75.425(e)(1)(F)(iv)]	Section 4.9 and 1.6.4
Contingency Plan Contents – wildlife [18 AAC 75.425(e)(1)(F)(xi)]	Section 4.10 and 1.6.11

4.1 HIGH LIQUID LEVELS FOR ABOVEGROUND STORAGE TANKS [18 AAC 75.065(K)(4)]

Not Applicable. Crowley Fuels Fort Yukon Facility bulk storage tanks are equipped with VAREC 8300 series tank gate interface panel, using a VAREC 6000 series servo tank gauge unit. The VAREC automatic tank gauges, which meet the requirements of 18 AAC 75.065(k)(1) and (k)(2).

4.2 CORROSION CONTROL PROGRAM ANALYSIS FOR FACILITY PIPING [18 AAC 75.080(B)]

To meet the corrosion control requirements of 18 AAC 75.080(b), 18 AAC 75.080(l) and 18 AAC 75.080(m), Crowley Fuels maintains all piping consistent with API 570 Standards and NACE RP0169-2002. Adherence to this industry standard is recognized by the State of Alaska as BAT. No additional analysis is required. See also Section 2.1.9, Piping Corrosion Control Programs.

4.3 MAINTENANCE PRACTICES FOR METALLIC FACILITY OIL PIPING (CORROSION PROTECTION) [18 AAC 75.080(D) AND (K)(1), (L)]

To meet the maintenance practices for metallic facility oil piping (corrosion protection) program, Crowley Fuels adheres to the practice of Section 10 of NACE 0169 and API 570 Standards. In addition, the piping is pressure tested annually. Adherence to this industry standard is recognized by the State of Alaska as BAT. No additional analysis is required. See also Section 2.1.9, Piping Corrosion Control Programs.

4.4 OPERATION AND MAINTENANCE OF CATHODIC PROTECTION SYSTEM SURVEY EVALUATION [18 AAC 75.080 (K)(2)]

Underground piping at the Fort Yukon Facility is wrapped and have a sacrificial anode attached (reference Section 2.1.9 for a description of the facility's operation and maintenance practices and Figure 1.5). Crowley Fuels operates and maintains the CP system consistent with the requirements of Section 10 of the *Standard Recommended Practice: Control of External Corrosion on Underground or Submerged Metallic Piping Systems* (NACE RP0169-2002), which is considered BAT by industry and the State of Alaska. Only corrosion experts or qualified CP testers will perform surveys. No analysis is required.

4.5 COMMUNICATIONS EVALUATION

EVALUATION CRITERIA: Communications	EXISTING: Terminal Communications	OPTION 1: Crowley Fuels Resources	OPTION 2: Contracted	OPTION 3: Video
AVAILABILITY Is the technology the best in use in other similar situations? Is the technology available for use?	VHF hand held radios, cell phones, fax and telephones are used by employees to respond to an emergency event. Assigned frequencies exist. See Section 1.4 for details.	Additional communications resources are available from the Crowley Fuels inventory. Crowley Fuels tugs have VHF, SSB, Satellite phones and faxes onboard.	"Fly Away Equipment" communications and response labor support from Chadux and Anchorage, AK. Technology is available.	Video cam with emergency response base units, highly sophisticated units operating from satellites. Technology under development with Department of Defense.
TRANSFERABILITY Can the technology be applied to this operation?	Yes, in use.	Crowley Fuels communications were designed for intra-company communications.	Crowley can use the Fly Away Equipment system by phoning and requesting assistance.	This technology is not transferable.
EFFECTIVENESS Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Effective and in use.	System is effective and used all operating season.	Fly Away Equipment would add increased communications in the event of a release event.	Not available, so would not exist.
COST What are the costs? Cost consideration relative to remaining years of service of current technology.	Incurred with existing system	Incurred with existing system	Cost is dependent upon incident and amount of equipment and labor deployed.	No cost as technology not available.
AGE & CONDITION Age and condition of existing technology	Proven technology. All are in good condition.	Crowley Fuels communications devices range in age; all are in good condition, are used frequently and replaced or repaired if they fail.	Fly Away Equipment utilizes modern 2-way radios and communication equipment.	Would be latest technology.
COMPATIBILITY Is the technology compatible with existing operations?	Compatible and in use	Technology is compatible with existing system of communication. Radios are coordinated to Crowley Fuels frequencies.	Technology is compatible with Crowley Fuels communication frequency and system.	Not compatible with existing Crowley Fuels facility.
FEASIBILITY Engineering and operational feasibility of the technology	Feasible and fully operational.	This technology is feasible with current communication system.	Technology is feasible with current communication system.	Not feasible due to costs and the small size of facility.

EVALUATION CRITERIA: Communications	EXISTING: Terminal Communications	OPTION 1: Crowley Fuels Resources	OPTION 2: Contracted	OPTION 3: Video
ENVIRONMENTAL IMPACTS Does the technology impact the environment in a manner that offsets its benefits?	No environmental impacts	None associated with Crowley's communication system.	No environmental impacts with Fly Away Equipment other than fuel consumed and exhaust generated getting to the site.	No environmental effects.

Summary: Current technology is adequate to state standards. Crowley Fuels will continue to use current technology. Option 1 will be used in a spill event. It is unlikely that Option 2 would be used, and Option 3 will not be used.

4.6 STOP DISCHARGE AT SOURCE EVALUATION

Description of Process: Existing Technology:	Plan Requirement: **Stop the discharge at its Source and Prevent Further Spread** Facility has redundant systems to prevent, detect releases and facilitate recovery		
EVALUATION CRITERIA:	**EXISTING:** **Manually close valves and stop pumps**	**OPTION 1:** **Automatic detection and shut down**	**OPTION 2:** **Pipe or Tank Failure Adhesive/Pipe Bands/Plugs**
AVAILABILITY Is the technology the best in use in other similar situations? Is the technology available for use?	Manual system. Radio and phone communications with dock PIC throughout marine receipts. Frequent phone communication with Defense Fuels during pipeline operation. Secondary containment volume	Type of operation (barge-tank farm transfers) does not accommodate automatic systems.	This method can temporarily pug or repair a leak from a crack or failure
TRANSFERABILITY Can the technology be applied to this operation?	In use.	Automatic systems are usually process/facility specific and not easily transferrable.	In use.
EFFECTIVENESS Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Existing technology and procedures assure capability to react quickly to any release	There is not a reasonable expectation that an automatic system would provide increased spill prevention over the current system.	Highly effective and beneficial
COST What are the costs? Cost consideration relative to remaining years of service of current technology.	In use.	Cost prohibitive for small-scale operations	In use.
AGE & CONDITION Age and condition of existing technology	Valves maintained regularly and are in good condition	Latest technology	Maintained in good condition
COMPATIBILITY Is the technology compatible with existing operations?	Yes, in use	Major redesign of terminal arrangement would be required to accommodate required piping, valves, etc.	Yes, is compatible
FEASIBILITY Engineering and operational feasibility of the technology	In use	Conversion is possible from an engineering and operational standpoint.	Yes, is feasible
ENVIRONMENTAL IMPACTS Does the technology impact the environment in a manner that offsets its benefits?	None	None	This technology is protective of the environment but is used during emergency conditions

Summary: Crowley Fuels has elected to continue use of manual mechanical shutoffs, as these are virtually fail-safe. Redundant valves ensure that more than one mechanism is available to close a line. Automatic systems, while available, are costly and do not provide a commensurate level of prevention above that of good operational control and adherence to established procedures.

4.7 SURVEILLANCE AND TRACKING EVALUATION

Description of Process: Existing Technology:	Plan Requirement: **Real time Surveillance and Tracking** Tracking of refined product spill to water via aerial surveillance			
EVALUATION CRITERIA:	**EXISTING:** **Visual surveillance from aircraft and/or use of Unmanned Aircraft Systems (UAS)**	**OPTION 1:** **Airborne ~~SLAR /~~ FLIR**	**OPTION 2:** **Tracking Buoys**	**OPTION 3:** **GNOME Trajectory Analysis Forecasting**
AVAILABILITY Is the technology the best in use in other similar situations? Is the technology available for use?	Visual surveillance using aircraft and trained observers is the best and most used approach for tracking spills. UAS technology equipped with optical capability and certified pilot is also available via PRAC. ~~Best and most commonly used approach for tracking~~	Has been used successfully under conditions in which visual surveillance is hindered. Technology is available.	~~Not used as best option.~~ Technology is available. (Lease or purchase). PRAC does not have in inventory.	Model run is available within 2 to 3 hours of notification to NOAA. Spill modeling by NOAA has been widely used in Alaska for forecasting spill trajectories during a response and modeling results would be available to responders.
TRANSFERABILITY Can the technology be applied to this operation?	Yes, this technology would be used during a major spill event.	Yes, can be applied, but limited to no added value	Yes, can be applied	Standard Mode can be downloaded from website. Diagnostic Mode requires NOAA SSC or contracted service.
EFFECTIVENESS Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Visual surveillance and UAS imagery provide~~s~~ immediate feedback for response and can be repeated frequently, as needed.	May provide improved tracking in adverse weather; however, radar reflections are subject to interpretation. Provides minimal added value.	Tracking Buoys are effective if signal can be received by monitoring device, or it can be seen visually. However, visual tracking from vessels and from the air is more reliable method of tracking from vessels and from the air is more reliable method of tracking spills. It would be most helpful for use during inclement weather or to aid in visual tracking from aircraft or from response vessels. ~~May provide improved tracking~~	There are currently no location files available for Kotzebue Sound. GNOME trajectories require validation from aerial and vessel surveillance, as well as tracking buoy locations.

Description of Process: Existing Technology:	Plan Requirement: **Real time Surveillance and Tracking** Tracking of refined product spill to water via aerial surveillance			
EVALUATION CRITERIA:	**EXISTING:** **Visual surveillance from aircraft and/or use of Unmanned Aircraft Systems (UAS)**	**OPTION 1:** **Airborne ~~SLAR /~~ FLIR**	**OPTION 2:** **Tracking Buoys**	**OPTION 3:** **GNOME Trajectory Analysis Forecasting**
			~~in adverse weather; however, buoys may not necessarily track with oil or be indication of leading edge.~~	
COST What are the costs? Cost consideration relative to remaining years of service of current technology.	Aircraft lease for visual surveillance. Possible contracting of UAS certified pilot.	Unknown. Aircraft and equipment lease ~~(from Lower 48),~~ and data analysis	Unknown. Equipment lease and data analysis	No new cost for the Standard Mode System in use. Request for NOAA SSC support to conduct trajectory modeling
AGE & CONDITION Age and condition of existing technology	Aircraft/equipment used would be best available and in good condition	Satellite and GPS~~Radar~~ technology is continually improving.Tracking buoys if used would be new.	Technology available via commercial vendor.	NOAA keeps the model and data up to date.
COMPATIBILITY Is the technology compatible with existing operations?	Compatible and would be employed.	Requires specialized aircraft, equipment and personnel.	Requires specialized equipment, field deployment, and monitoring systems.	Compatible with existing operations.
FEASIBILITY Engineering and operational feasibility of the technology	In place	This technology would only be feasible as a leased option and backup to existing technology.	This technology would only be feasible as a leased option and backup to existing technology.	Has been used by spill responders in Alaska and the rest of the U.S.
ENVIRONMENTAL IMPACTS Does the technology impact the environment in a manner that offsets its benefits?	No environmental impact	No environmental impact	No environmental impact	No environmental impact.

Summary:

Aerial surveillance and/or UAS is faster and more accurate than tracking oil on water from a vessel or from onshore. An aerial view of the oil provides better information about the location, velocity, and dispersion of the oil than does any possible observation from onshore or on the water. Therefore, Crowley Fuels selected visual observation via aerial surveillance, whether by aircraft or UAV's to be the best available technology.

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~~Crowley Fuels has elected to utilize visual tracking as the preferred method for surveillance and tracking. Industry and government utilize this same approach, in general. This method does not preclude possible use of other techniques, but these alternatives are not expected to yield significant return particularly with respect to non-persistent oils. Current technology is adequate to state standards.~~

4.8 WILDLIFE PROTECTION, CAPTURE, TREATMENT, AND RELEASE PROCEDURES AND METHODS

Description of Process: Existing Technology:	Plan Requirement: **Protection, Recovery, Disposal, Rehabilitation and Release of Potentially Affected Wildlife** Appropriate wildlife trust agencies are activated when necessary with the assistance of ADEC, Chadux and ADF&G		
EVALUATION CRITERIA:	**EXISTING:** **IBR Mobile Wildlife Care Unit**	**OPTION 1:** **Fixed Rehabilitation Terminal**	**OPTION 2:** **Onsite personnel who are experts in wildlife protection and rehabilitation**
AVAILABILITY Is the technology the best in use in other similar situations? Is the technology available for use?	PRAC contracted resource with IBR & ASLC. Trained personnel in Alaska working in an experienced system. ~~Best group of trained personnel in Alaska working in an experienced system.~~	Some wildlife operations have had immediate access to fixed facilities, bust most rely on mobile field facilities with fixed Terminal back up.	Numerous experts available for hire
TRANSFERABILITY Can the technology be applied to this operation?	Transferrable to location. In use	Yes, but with limited to no added value.	Requires expertise to protect, recover, dispose, rehabilitate and release potentially affected wildlife. Requires experts on site with extensive training
EFFECTIVENESS Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	System provides front-line care to the field for immediate rescue and rehabilitation.	As support system to mobile field units.	Onsite resource could make contacts thus relieving Terminal Manager of this responsibility
COST What are the costs? Cost consideration relative to remaining years of service of current technology.	Costs already incurred for existing system.	New fixed facility implies construction & equipment costs and staff for maintenance. Best option is to lease existing Terminal.	Onsite resource at Terminal would be underutilized. Spill history at Terminal does not justify expenditure
AGE & CONDITION Age and condition of existing technology	Team is trained — mobile unit built in 1996.	Newly built facility would contain modern materials and technology.	Outside agencies maintain proficiency
COMPATIBILITY Is the technology compatible with existing operations?	In use ~~by ADEC, Chadux~~government, PRAC, and Industry.	Yes, but with limited to no added value.	An onsite staff member could remain proficient
FEASIBILITY Engineering and operational feasibility of the technology	In use	Fixed Terminal would not be most supportive to the extensive and remote coastal areas in Alaska.	Onsite resource at Terminal would be underutilized. Spill history at Terminal does not justify expenditure

Description of Process: Existing Technology:	Plan Requirement: **Protection, Recovery, Disposal, Rehabilitation and Release of Potentially Affected Wildlife** Appropriate wildlife trust agencies are activated when necessary with the assistance of ADEC, Chadux and ADF&G		
EVALUATION CRITERIA:	**EXISTING:** **IBR Mobile Wildlife Care Unit**	**OPTION 1:** **Fixed Rehabilitation Terminal**	**OPTION 2:** **Onsite personnel who are experts in wildlife protection and rehabilitation**
ENVIRONMENTAL IMPACTS Does the technology impact the environment in a manner that offsets its benefits?	No. Provides immediate on-scene care for stabilization.	Long distance transport of injured or oiled animals and birds is likely to cause higher stress and trauma.	No impact

Summary:

IBR and ASLC is the established wildlife responder in Alaska. The equipment and personnel are available through Chadux and have been deployed successfully on several incidents in Alaska, providing the key wildlife response to Industry, USCG, and ADEC. Additional specialized resources could be called upon to supplement this capability, as needed.

~~IBR is the established premier wildlife responder along the U.S. west coast, including Alaska. The IBR equipment and personnel have been deployed successfully on a number of incidents in Alaska, providing the key wildlife response to Industry, USCG, and ADEC. Additional specialized resources will be called upon to supplement this capability, as needed.~~

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PART 5 — RESPONSE PLANNING STANDARD

The Response Planning Standard (RPS) volume for this type of facility is based on the capacity of the largest single storage tank (Tank No. 22-39, capacity 288,043 gallons) with reductions for preventative measures. No oil is expected to reach open water as a result of a spill from the tank farm — see Section 3.2.2, Estimate of Volume (as a % of the RPS) that Could Reach Open Water, for justification.

Prevention Measures	Reduction	Applicable RPS
Volume of Largest Tank	—	288,043 gallons
Alcohol and Drug Testing of Key Personnel, Section 2.1.3	5%	273,641 gallons
Training Program, Section 3.9/2.1.2	5%	259,959 gallons
On-Line Leak Detection Systems for Tanks and Piping	5%	NA
Adequate Secondary Containment Volume, Section 2.1.8	60%	103,984 gallons
Cathodic Protection	10%	NA
Fail-Safe Valve Piping Systems	15%	NA
Impervious Containment Under Tanks, Section 2.1.8	25%	77,988 gallons
Containment Outside the Secondary Containment Area, Section 2.1.8	10%	NA
Total RPS Volume		**77,988 gallons**

RPS for the Ft. Yukon Tank Farm ..... **1,857 barrels or 77,988 gallons**
RPS to water.....0 bbl.

Federal Response Planning Standard Volumes:

EPA Worst Case Discharge (WCD).....7,798 bbl. / 327,516 gallons
EPA Medium Discharge.....779 bbl. / 32,718 gallons
EPA Small Discharge.....50 bbl. / 2,100 gallons

USCG Worst Case Discharge (WCD).....110.5 bbl. / 4,640 gallons
USCG Average Most Probable Discharge (AMPD).....1.10 bbl. / 46.4 gallons
USCG Maximum Most Probable Discharge (MMPD).....11.05 bbl. / 464.1 gallons

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