NORTH SLOPE
SUBAREA CONTINGENCY PLAN

SCENARIOS
SECTION

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SCENARIOS: PART ONE – COASTAL OIL

A. WORST CASE SCENARIO

Size of the Discharge: 2,160,200 bbls 25-30 API Crude Oil.

Event Description: An exploratory well experiences a blowout from the blowout preventer on the sea floor and begins releasing 61,000 barrels of oil per day (BOPD) declining to 20,479 BOPD by day 74. Winter is fast approaching. The ice edge has already passed the platform and is continuing to advance rapidly. Ice coverage exceeds 60% at the time of the spill. Estimates indicate ice coverage will exceed 75% in 30 days and approach 100% within 60 days of the initial spill date.

Location: Approximately 60 miles offshore of the North Slope District –
Lat/Long: 71º 18' 17.2 N 163º 45' 9 W

Spill: The blowout is releasing crude oil at the rate of 61,000 barrels of oil per day (BOPD) declining to 20,479 BOPD by day 74. Rough trajectory is based on circulation patterns, oil type and quantity, and weather. Trajectory assumes flow through low ice concentrations and should only be used for the purposes of this scenario. (Note: Trajectory information taken out of context with this scenario should not be relied upon as a forecast for actual conditions or spill events). Currents, weather and product spilled will combine to limit the spread of the slick and also keep it from traveling a great distance over this time period.

Cargo Salvage: Not Applicable.

Date: August 1

On-scene Weather: Winds: SW @ 40 kts, decreasing to 15 kts on second day; Sea State: 10-30ft; Temp: 40 □F

Sensitive Areas at Risk: Specific information on resources at risk can be extracted from the Sensitive Areas Section in consultation with the resource trustees. From a general viewpoint, resources in the immediate area of the spill that are at risk include walrus, shellfish, plankton, lower trophic organisms, polar bears, seals, migratory whales, subsistence fish, waterfowl concentrations, seabird colonies and historic properties.

The shoreline geomorphology in the immediate vicinity of the spill is predominantly sand/rocky shoreline. Sand and gravel beaches, exposed wave-cut platforms and sheltered tidal flats can be expected to be impacted from this spill in the early stages due to their proximity to the spill event. The impacts of a spill of this volume are far reaching and would affect a large area. An extensive, coordinated effort between trustee agencies would be necessary to develop a comprehensive approach to environmental impact abatement. The Sensitive Areas Section provides a framework for accomplishing this task. Several downstream communities would be impacted by a spill of this magnitude.

Initial Action Description:

1. Notification (Assume the responsible party has notified the required agencies in accordance with the vessel response plan)

   FOSC will ensure the following are notified:

   ** ADEC Central Alaska Response Team or 24-hour ADEC reporting contact
   * ADNR
   * BSEEE
   * ADF&G
   * ADMVA, DHSEM
   ** CGD17 OPCEN, to activate support resources including:
   DRG, District Response Group
   DRAT, District Response Advisory Team
   PIAT, Public Information Assist Team
   RRT, Regional Response Team
   ** NRC, National Response Center
   *** DOI
   *** DOC
   *** NOAA SSC, Scientific Support Coordinator
   ** NSFCC, National Strike Force Coordinating Center
   ** NPFC, National Pollution Fund Center
   *** North Slope Borough
   *** North West Arctic Borough
   *** Local Emergency Managers of directly impacted communities
   *** Federally-recognized tribes in impacted communities

   Key: * = Notification initiated by State
   ** = Message notification
   *** = Notification by FOSC

2. Response Activation

   - Dispatch representatives to the scene at the first opportunity
   - FOSC/SOSC/RP Representatives establish direct communications
   - Ensure health and safety of platform crew
   - Ensure stability of platform
   - Attempt to make initial determination of cause of blowout
   - Ensure contact with BOEMRE personnel to draw on expertise in offshore platforms
   - Establish Safe Zone around platform until proper safety evaluation completed
   - Evaluate slick size, direction, area of coverage, proximity to shore, wildlife impacts, wildlife observed in area, on scene weather, etc.
   - Determine what response actions have occurred or are underway
   - Issue Notice of Federal Interest and State Interest to RP
   - Consult with DOI, DOC and the State of Alaska on potential resources at risk.
   - Conduct Endangered Species Act consultation with DOI and DOC.
   - Activate FOSC's Historic Properties Specialist.

3. Initial On-Scene Investigation, Inspection, Evaluation & Recommendations

- Ensure notification of resource trustees using the Emergency Notification Checklist
- Evaluate the capability of the RP to carry out an appropriate response given the situation
- Prepare Initial POLREP (USCG)
- Prepare Initial SITREP (State)
- Instruct RP to develop in situ burning plan for consideration and to begin marshaling resources for burning activity if actions are not already underway
- Instruct RP to determine his/her ability to mechanically recover spilled product before 100% ice cover
- Evaluate capability to contain and recover oil after 100% ice cover using innovative techniques appropriate to arctic conditions
- Evaluate RP's plan for securing the source

4. Initial Response Actions

- Secure the source, if possible.
- Stabilize the platform if required
- Activate the response structure to the Spill of National Significance (SONS) level
- Deploy containment boom and/or plan and prioritize shoreline protection and cleanup areas. Utilize established Geographic Response Strategies (GRS), when possible.
- Evacuate any injured personnel or unnecessary crew members.
- Using **Unified Plan, Annex B** Implement some or all of the Incident Command Systems (ICS) principles listed below:
    - Develop a Unified Command (UC) that includes RPOSC, SOSC, FOSC and LOSC (if available).
    - Evaluate RP's capability to carry out an appropriate response.
    - Determine name of incident.
    - Determine goals and objectives
    - Determine UC staff and size- Liaison and RSC positions are critical for this region.
    - Establish an appropriate ICP to support UC activities- Plan for Prudhoe Bay.
    - Establish a Joint Information Center (JIC). Ensure joint website and/or appropriate local stakeholder communication plan is used to maximize information sharing.
- Utilize local knowledge, SSC and other NOAA hazmat resources as necessary to predict spill trajectory and potential impacts.
- Establish local (Anchorage) command post while individuals are en route to the field command post and plan for relocation to Prudhoe Bay.
- Prepare initial press release with the Unified Command.
- Complete notification procedures. Include up-channel notification to include the RRT, DRG, DRAT, PIAT, SILC contracting team, NPFC, and NSFCC.
- Issue Notice to Mariners restricting vessel traffic in the immediate vicinity of the incident.
- Issue Notice to Airmen, through the FAA, restricting aircraft traffic in the immediate vicinity of the incident.
- Ensure preparation of Site Safety Plan.
- Determine any fisheries impacts, and take appropriate action.
- Consider alternatives to mechanical response: dispersant application, *in situ* burning
- Schedule routine overflights of the impacted area. Request USCG support in developing an aviation operations plan for the spill to control air traffic in the area.
- Consult with natural resource trustees on the protection of sensitive areas and resources.
- Consult with the Historic Properties Specialist on the protection of historic properties.
- Receive recommendations from trustee agencies on wildlife response strategies. Make

decision on any recommendations (e.g. migratory bird deterrent and capture and treatment program.)

- Determine feasibility of removal actions based on:

    - Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
    - Can cleanup be initiated before the pollutant disperses, making recovery impractical?
    - Can equipment be deployed without excessive risk to the life and health of personnel?

5. Spill Response Organization

A spill of this magnitude would normally be declared a Spill of National Significance (SONS). If the Unified Command determines the spill to be a SONS, the command structure, roles and responsibilities of a SONS scenario are identified in the **Unified Plan, Annex B**. The pre-designated FOSC for the region becomes the Area Operations Coordinator. The SONS incident continues as a Unified Command response. The fact that an incident is declared a SONS does not indicate that the response has been poorly managed or that anyone has performed poorly. The escalation of an incident into a SONS is intended to make more resources and personnel available for the response.

A Liaison Officer will be assigned to act as a sounding board for landowners, leaseholders, affected interest groups that have no jurisdictional authority, and other interested parties. The Regional Stakeholder Committee will be formed to serve as the official stakeholder and community representative voice to the Unified Command.

6. Containment Countermeasures and Cleanup Strategies

- Evaluate/determine whether a relief well is appropriate.
- Evaluate/determine feasibility of in-situ burn.
- Boom the rig at the earliest opportunity, pending favorable weather.
- Evaluate/determine feasibility of dispersants.
- Organize Shoreline Cleanup Assessment Teams in preparation for shoreline surveys.
- Ensure an appropriate wildlife deterrent, capture and treatment program is in place.
- If not already provided, request that natural resource trustees provide a Natural Resource Damage Assessment Liaison to work with the Unified Command.
- Request NOAA provide spill tracking and trajectory modeling to determine present location and path of spill. Consider spill tracking/surveillance systems; the University of Alaska Fairbanks' Synthetic Aperture Radar facility, USCG Forward Looking Infrared Radar equipped aircraft, and USCG Side Looking Airborne Radar are potential resources.
- Consider use of BOEM/UAF HR Radar.
- Continue consulting with natural resource trustees and Historic Properties Specialist on proposed response strategies to help prevent or minimize injury to natural resources and historic properties.
- Continue Endangered Species Act consultation with FWS and NMFS.
- Response procedures for on-ice/under-ice recovery are located: at http://www.alaskacleanseas.org/tech-manual/ , and http://www.alaska.boemre.gov/ref/ProjectHistory/tactics_manual.pdf

7. Resource Requirements

a. Equipment: Operators on the OCS are required to have oil spill response assets immediately available to respond to spills from their facilities. Quick deployment of high volume oil recovery vessels and other mechanical collection equipment is essential to ensure success of the response and to mitigate spill damage. A spill of this size will require all area response equipment as well as out-of-region response equipment in a joint coordinated cleanup effort. A partial list of available equipment for the North Slope subarea is located in section B of this plan. The Alaska Clean Seas equipment readily available within the North Slope Subarea is located in the ACS Technical Manual, Vol. 1 Tactics Descriptions, available at http://www.alaskacleanseas.org/. A list of the equipment available by Shell is located: http://www.alaska.boemre.gov/ref/ProjectHistory/tactics_manual.pdf.

b. Vessels, Skimmers, Boom, and other Spill Response Equipment:

(1) Given the volume of this spill scenario, it is anticipated that skimming systems will be immediately requested from the major spill cooperatives in Alaska, and deployed to the spill area. (Master Service Agreements between the major spill response co-ops should allow for temporary, out-of-region deployments of major spill response equipment.) Releasing equipment designated for a regulatory response requirement in one area to be used in a response in a different area must be addressed by the Unified Command. The equipment and vessels should arrive on scene with all equipment prepared for immediate deployment. The major spill cooperatives in the State include: Cook Inlet Spill Prevention and Response Inc. (CISPRI); Alyeska Pipeline Service Company (APSC) Ship Escort Response Vessel System (SERVS); Alaska Clean Seas (ACS); Alaska Chadux Corporation (ACC); Southeast Alaska Petroleum Resource Organization (SEAPRO). Resources available include, but are not limited to the following:

Skimmers

- Lamor 30
- Lamor 12
- Manta Ray
- Skimpak 1800
- Desmi Minimax
- Stellar vac unit
- Rovac

Boom: Alaska has one of the largest inventories of boom in the entire nation. Booms of all varieties and sizes can be found in nearby areas. Fire boom for *in situ* burning applications is also in local inventories. Exclusionary and deflection booms and associated mooring and anchoring equipment are also in local inventories.

Vessels of Opportunity: Both CISPRI and SERVS have a fleet of pre-identified and trained large vessels of opportunity. Vessels range in size and construction from landing craft (both large and small), fishing vessels (variety of sizes and horsepower), and numerous other vessels from charter boats for personnel transportation to skiffs for near shore response. CISPRI and SERVS fishing vessel fleets are experienced in boom deployment. A ready fleet of response vessels experienced in pollution operations meeting HAZWOPER requirements are located in Kodiak, English Bay, Port Graham, Homer, Kenai, and Seldovia all have sizable vessel of opportunity fleets. Seldovia SOS has a response structure to dispatch and

support local vessel operations and maintains an immediate call out list of qualified vessels and personnel. An available armada of response vessels exists with great potential to benefit a spill response if properly supported and managed effectively. Logistical arrangements and support will be necessary to manage any large scale deployments of ocean-going vessels to the incident area in support of cleanup operations.

Personnel: Initial personnel activation will require several hours to days. The North Slope subarea, like much of the state, does not have a substantial cadre of HAZWOPER-trained individuals to man cleanup vessels and participate in other cleanup and response activities. However, if the Responsible Party is a member of ACS, there are approximately 300 HAZWOPER-trained personnel available to respond to a spill.

8. Resource Availability and Resource Procurement

For the purposes of this scenario, it is assumed that agreements would be reached between all involved parties (USCG, State of Alaska, ACC, CISPRI, ACS, SERVS) that would allow the resources of the spill cooperatives to be brought into the response. This assumption does not imply that such agreements are currently in place or that such agreements would be reached. Lower 48 OSRO's and NAVSUPSALV are potential resources that could be available for this scenario, if proper agreements could be reached that are acceptable to the involved parties. All these response Co-Ops have highly organized management teams knowledgeable in the ICS structure and routinely exercise their roles as responders. A communications network is already in place and available for immediate usage.

Procuring the resources identified in this spill response is the RP's responsibility. A spill of this magnitude would likely exceed $1 million each day during the initial stages of the response. Committing this volume of funds in a short time is essential. Failure, on the part of the RP, to quickly settle accounts payable can quickly force local businesses out of business. Experience acquired during past spills has shown that funds must be processed at a much higher than normal rate to maintain the response. The Oil Spill Liability Trust Fund is available to the FOSC in the event the RP is unable or unwilling to pay the costs of the spill response.

9. Shortfalls

a. Equipment: A major shortfall in equipment could be expected if the response cooperatives, the State, and the USCG can't develop agreements that will allow all response resources of these groups to be brought to bear. The issues include, but are not limited to, liability, financial arrangements, release from regulatory requirements, and rules for operating facilities with less than the required response equipment. The lack of agreements in place could hinder a response effort that exceeds the capability of an individual response cooperative. No regulatory requirement exists that mandates such mutual aid agreements.

Lighterage for skimmed product is always a consideration when determining the adequacy of a response. Lighterage capability has increased dramatically over the last four years. Part of the lighterage concerns can't be answered without a determination as to whether or not decanting will be allowed and can be planned as part of the response. Fire fighting capability for this scenario is extremely limited. Resources to fight a fire in this scenario would have to be brought from outside the region.

b. Personnel (logistical/training issues):

(1) Housing – Local hotels, on-water vessels and barges will be required to sustain the response. Several organizations in Alaska cater "field camp" setups which include housing and feeding facilities. These facilities are available in flyaway form and as floating hotels. Most of these field camps are idle during the winter months in of Alaska.

(2) Food - Catering services for field personnel would likely be procured coincidentally with the remote housing units. Catering for response personnel not deployed to the field could be handled using resources within the region.

(3) Fuel - Several fuel facilities are located in the subarea. These facilities would be required to supply the numerous vessels operating in the area. Fuel may become a concern given the long term response anticipated for a spill of this magnitude.

(4) Transportation: Prudhoe Bay is the only major commercial airport located in the immediate vicinity of the spill area, and would serve as the primary logistics supply points. In most cases, equipment must be transported overwater or sling loaded via helicopter. Favorable weather conditions are also a major factor in hindering both air and water transportation for personnel and equipment.

(5) Manpower and Training: Shoreline cleanup crews will require OSHA level Hazwoper training commensurate with the tasks they will be directed to perform. Volunteers will not be solicited, and individuals desiring to help will be directed to a central coordinator for hiring emergency response workers.

c. Funding: Funds availability and access should pose no problem regardless of the financial capabilities of the RP. If funding problems arise, the FOSC has access to the Oil Spill Liability Trust Fund and procedures are in place to make these funds available. The SOSC, in the event of a State funded response, has access to the 470 Fund and procedures are in place to make these funds available as well.

If the spill is "federalized," problems have been identified regarding the payment of accounts due. The response organizations will likely be unable financially to expend the amounts of money anticipated if reimbursement occurs on a 30 day payout. Ten days, as a maximum, has been discussed as the period when receipts must be paid. Failure to pay in this time period could result in a collapse of the logistical supply line, and therefore the response. Federal contracting personnel must evaluate this requirement and determine a feasible solution.

d. Minimum Response Times: Estimates indicate that the RP would have response personnel and equipment on scene within 24-hours of the incident report, pending favorable weather. The response to this spill will depend heavily upon the sea state and weather in the incident area.

10. Spill Cleanup Timetable

The on-water spill response will continue until all recoverable oil is collected or the fall/winter weather forces a halt in operations due to personnel safety. Operations may continue through November, depending on weather, specifically the onset of winter storms. Shoreline cleanup will begin as soon as possible after beaches are oiled. The shoreline cleanup can then be expected to resume as soon as

spring weather will allow. The number of years required to terminate cleanup operations depends heavily upon the efficiency of the initial on-water response.

11. Disposal Options

Debris disposal is the responsibility of the RP. The volume of oil contaminated debris will exceed the disposal capability of the region, unless on-site disposal methods are approved by the appropriate agencies. The RP must present a disposal plan to appropriate agencies along with necessary permits for the requested disposal plan. Disposal options for debris are limited in Alaska.

Information on waste streams and typical waste products that will be generated during a response is contained in this Subarea plan in the Response Section, Part Two and in the Unified Plan, Annex E, Appendix II. This scenario will generate a very large volume of oil contaminated equipment and recovered product. The remoteness of the region will complicate disposal and elevate the costs of handling and transportation. The availability of shipping and storage facilities make it difficult to comply with the time frames contained in hazardous waste handling regulations. The task of managing waste disposal must be approached aggressively and very early in the response. Facility/vessel owners must investigate and identify potential staging areas for contaminated debris and equipment as well as the potential for long-term storage capabilities due to severe weather preventing timely transportation disposal and of accumulated waste. Also, areas designated for cleaning contaminated equipment must be able to handle the contaminated runoff.

12. Cleanup Termination

Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the water, on adjoining shorelines, or in places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health or welfare, or the environment; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

B. MAXIMUM MOST PROBABLE SCENARIO

1. Situation: The fuel barge planning to refuel the Barter Island Long Range Radar Site (LRRS) strikes a partially submerged object en route to the anchoring location. The object is suspected to be ice. The vessel continues to the anchoring location having no direct indication of damage since no product is seen escaping. Apparently, as long as the vessel is underway, fuel does not escape from the damaged tanks. But after the vessel anchors up, awaiting fuel transfer, free product is detected on the water.

2. Location: Barter Island has numerous above ground storage tanks that have a combined capacity of over 40,000 bbls of fuel, mostly arctic diesel and JP-4. Fuel barges re-supply the site only once a year. Site of the discharge is approximately 70° 10' N 143° 35' W.

3. Spill Information: Approximately 500 bbls of arctic diesel are released over a one hour period.

Date: August 1

On-Scene Weather:	Winds	E @ 10 kts
	Temperature	10° C (50° F)
	Sea State	Calm
	No surface ice present	

4. Cargo Salvage: Crew begins transferring fuel as necessary to maintain stability and attempt to hydrostatically load the damaged tanks. Salvage of the remaining cargo is successful.

5. Sensitive Areas at Risk: There may be nearshore bowhead whale feeding and later migration from the east in September. A variety of migratory waterfowl (including geese, ducks, and eiders) nest and feed in the area and will stage fall migrations here. This area is designated as critical habitat for polar bears, who often feed on whale carcasses on Barter Island. Inundated low-lying tundra and peat shorelines could possibly be impacted by a spill. This is a subsistence use area.

6. Initial Actions:

a. **Notification:** (Assume the Responsible Party (RP) has notified the required agencies in accordance with the vessel response plan)

FOSC (USCG will notify the following):

*** ADEC (also notified by the RP)
*** DOI
* ADNR
* ADF&G
* ADMVA/DHSEM
*** CGD17 OPCEN, which includes
- District
- DRG
- DRAT
- PIAT

*** ARRT
*** NRC
*** NOAA Scientific Support Coordinator
** NSF
** NPFC

*** = Notification by FOSC
** = Message notification
* = Notification by State

*** North Slope Borough
*** Local Emergency Managers of directly impacted communities

b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (USCG, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.

c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:** Dispatch pollution investigators (MSO Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification. All information must come from individuals on scene that may or may not be knowledgeable of emergency procedures or pollution response. Conflicting reports can be expected during the early phases of gathering information.

d. **Initial Response Actions:**
- Dispatch rep from SECTOR Anchorage and DEC NART (Fairbanks) as needed
- Stabilize the vessel
- Secure the source of discharge through fuel transfer
- Ensure health and safety of personnel
- Complete notification procedures
- Activate the response structure to the level deemed necessary
- Consult with natural resource trustees on the protection of sensitive areas and resources.
- Consult with the Historic Properties Specialist on the protection of historic properties.
- Receive recommendations from trustee agencies on wildlife response strategies.
- Prepare Initial POLREP (USCG)
- Prepare Initial SITREP (State)
- Establish Anchorage-based command post for FOSC/SOSC and Staff
- FOSC/SOSC will operate from offices and will not travel to the scene
- Consult with DOI, DOC and State of Alaska on potential resources at risk.
- Conduct Endangered Species Act consultation with DOI and DOC.
- Activate FOSC's Historic Properties Specialist.
- Determine feasibility of removal actions based on:

    1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?

    2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?

    3) Can equipment be deployed without excessive risk to the life and health of personnel?

7. Spill Response Organization: Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. Containment, Countermeasures and Cleanup Strategies: Immediate containment is required to mount an effective recovery operation. Vessel crew deploys response equipment carried aboard as required by the Vessel Response Plan. Containment boom is deployed and approximately 40% of the released product is contained and skimming begun.

Natural dispersion and evaporation will act to remove the product from the water surface. A spill of this volume will spread, disperse, and evaporate making recovery, if not initially contained, very difficult.

In situ burning and dispersant strategies will not be employed.

A spill of this volume that is not contained immediately but is allowed to spread will likely not be recoverable under these conditions. The time required to mount an effective response added to the extraordinary travel time and logistical difficulties may make "chasing" this oil spill infeasible.

9. Response Requirements:

a. **Equipment:** The equipment required in the State and Coast Guard vessel response plans should adequately address this spill. It is unlikely that additional equipment can be brought to bear in a timely manner and at a reasonable cost to respond to this spill volume. Natural processes will drastically reduce the spill volume in a matter of hours rather than days.

b. **Personnel:** Expect to use only on board personnel for this response. The crew should be capable of deploying equipment and recovering product without assistance. Trustees and other agencies should not require augmentation or additional manpower to deal with this spill.

10. Resource Availability and Resource Procurement: Resources should be on hand to deal with this spill. The volume of product that can be expected to be recovered will be relatively small and additional resources will probably be unnecessary by the time they arrive on scene.

11. Shortfalls

a. **Equipment:** None anticipated.

b. **Personnel:** None anticipated.

c. **Funding:** No funding problems anticipated.

d. **Minimum Response Times:** Vessel owner should comply with the approved vessel response plan. If these response times are met, response should be adequate assuming the crew acts quickly to contain the product being released as soon as it's detected.

12. Spill Cleanup Timetable:

a. **Mechanical Cleanup Only:** Two days.

b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

13. Disposal Options: Debris disposal is the responsibility of the RP. A small volume of oil contaminated debris will likely be produced. The RP must dispose of contaminated debris according to existing laws. The RP will typically be knowledgeable in the methods and requirements for disposing of small quantities of oiled debris.

14. Cleanup Termination. Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

C. AVERAGE MOST PROBABLE SCENARIO

1. Situation: A lightering vessel is transferring fuel to the Wainwright bulk fuel storage facility when the 4 inch transfer hose ruptures near the marine header.

2. Location: The coastal village of Wainwright is located at a position of 70 ° 37' North latitude, 160 ° 04' West longitude, approximately 80 miles southwest of Barrow.

3. Spill Information: Approximately 50 gallons of No. 1 diesel fuel is discharged into the Chukchi Sea.

Date: August 15

On-Scene Weather:	Winds:	W @ 10 kts
	Temperature:	10° C (50° F)
	Sea State:	Calm

4. Cargo Salvage: Upon discovery of the rupture, the transfer pump is secured and the valves at the marine header and aboard the lightering vessel are closed, preventing the loss of additional cargo.

5. Sensitive Areas at Risk: The shoreline from Wainwright to the southwest is critical habitat for polar bears. There is a sizeable Pacific walrus haulout near the village. Three species of ice seals may be in the area. There may also be concentrations of beluga whales in the nearshore environment and feeding gray whales with calves offshore. A variety of migratory waterfowl (including geese, ducks, and eiders) and shorebirds nest and feed in the area and will stage fall migrations here. Inundated low-lying tundra and sand beaches may be impacted by an oil spill. This is a subsistence use area.

6. Initial Actions:

a. **Notification:** (Assume the Responsible Party (RP) has notified the required agencies in accordance with the facility response plan)

FOSC (USCG will notify the following):

***	ADEC (also notified by the RP)
*	ADNR
*	ADF&G
*	ADMVA/DHSEM
***	CGD17 COMMCEN
***	NOAA Scientific Support Coordinator
**	NPFC
***	North Slope Borough (also notified by RP)
***	DOI

*** = Notification by FOSC
** = Message notification
* = Notification by State

b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (USCG, ADEC, ADNR, etc.) as needed to support a spill of this magnitude.

c. Initial Response Actions On-Scene:

- Alert vessel tankerman to secure pumping
- Secure electrical power and sources of ignition
- Close valves to prevent the flow of fuel through the ruptured hose
- Maintain a safety zone due to health hazards; evacuate personnel as necessary
- Ensure proper PPE is available and used by responders
- Alert the North Slope Borough to activate the initial ICS
- Contain and recover the charged product
- Properly dispose of recovered oil and oily waste
- Properly decontaminate all oiled response equipment

d. Initial Agency Evaluation and Recommendations:

- FOSC/SOSC/RP establish direct communications
- Evaluate the RP's response capabilities
- As required, dispatch representatives to the scene at the earliest opportunity
- Ensure health and safety of all individuals
- Coordinate with local emergency response personnel to establish a Safety Zone, as necessary
- Consult with DOI, DOC and the State of Alaska on potential resources at risk.
- Conduct Endangered Species Act consultation with DOI and DOC.
- Consider activation of FOSC's Historic Properties Specialist.
- Determine feasibility of removal actions based on the following considerations:

    1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?

    2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?

    3) Can equipment be deployed without excessive risk to the life and health of personnel?

- Ensure development of a Site Safety Plan
- Prepare initial POLREP (USCG)
- Prepare initial SITREP (State)

7. Spill Response Organization: Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. Containment, Countermeasures and Cleanup Strategies: Due to the small amount of discharged product, nature of diesel fuel, and weather conditions, the product will likely weather quickly through evaporation and emulsification. Safety of response personnel is of primary importance, as is early detection of the rupture and quick action to secure flow of product through the hose and contain the spill.

9. Response Requirements:

a. **Equipment:** Personal Protective Equipment for response personnel required to approach the vicinity of the spill is mandatory.

b. **Personnel:** Facility personnel and other emergency response personnel will likely be the most crucial individuals in this scenario.

10. Resource Availability and Resource Procurement. The RP is required to have resources on hand to respond to spills. It is anticipated that adequate resources would be available from the RP to respond to this event. In the event the RP does not have adequate equipment, the North Slope Borough maintains some response equipment that may be available, through appropriate agreements, for this scenario. Out-of-region resources are not considered necessary for this response.

11. Shortfalls

a. **Equipment:** No shortfall of cleanup equipment is anticipated.

b. **Personnel:** No shortfalls in personnel are anticipated.

c. Funding: Funds availability and access are not anticipated to be a problem due to identification of a responsible party. Federal and State could access their respective spill funds if necessary.

d. **Minimum Response Times:** Response times in excess of one hour may prove futile with regard to recovering any free product or containment to control the migration and areas impacted by the spill. Emergency response personnel should respond immediately to the spill site to maintain safety.

12. Spill Cleanup Timetable:

a. **Mechanical Cleanup Only:** One day.

b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

13. Disposal Options: Debris disposal is the responsibility of the RP. Limited amount of contaminated debris will likely be produced. Disposal procedures must meet Federal and State requirements. The RP will typically be well versed in these procedures due to the nature of their fuel handling operations.

14. Cleanup Termination: Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

SCENARIOS: PART TWO – HAZMAT

1. **Situation:** At approximately 10:00 am on June 1, a tanker truck transporting hydrochloric acid (37% concentration) overturns on the Dalton Highway while en-route to Prudhoe Bay (Deadhorse). The MC 312 liquid cargo tank contains approximately 4,500 gallons of hydrochloric acid. The driver of the tanker truck swerved to avoid a head-on collision with another vehicle, driven by a tourist. The tires on the right side of the truck caught the soft shoulder of the road and the truck rolled over and came to rest on its right side in a shallow embankment. The driver escaped serious injury and notified his dispatch center in Fairbanks before evacuating the cab of the truck. The tourist stops to render assistance, other vehicles are flagged down, and traffic is restricted from passing through the area. The truck driver observed liquid leaking from the rear portion of the tanker. There is no evidence of fire at this time.

2. **Location:** The incident occurred near milepost 280 on the Dalton Highway, approximately 10 miles due North of Pump Station 4 along the TransAlaska Pipeline System (TAPS). The pipeline is located approximately ¼ mile away from the accident site.

3. **Release Information:** Over a period of approximately 30 minutes, approximately 700 gallons of hydrochloric acid has been released into the shallow ditch next to the road. The volume released begins to slow after 30 minutes, as the leak appears to be from the upper half of the tank, near the manhole assembly and outlet shutoff valve.

Date of Incident: June 1

On-scene Weather: Winds: Westerly at 5 mph
Temperature: 45°F
Sunny and clear, with no rain forecasted

4. **Cargo Salvage:** The trucking company's representative will survey the situation and determine when it is safe to transfer the remaining liquid cargo from the overturned truck to another tanker truck or suitable tanker.

5. **Sensitive Areas at Risk:** Several creeks (Terry Creek, Mack Creek, and Ed Creek) are approximately one mile away from the accident site. All three creeks are known to contain arctic grayling, and possibly arctic char. The accident is also in a known subsistence use area, and two wildlife migratory routes are known to exist approximately two miles to the west and approximately five miles to the east of the accident location. Primary sources for determining resources at risk include the federal and state resource agencies and the TAPS Environmental Atlas, the North Slope Subarea Contingency Plan.

6. **Initial Actions:**

a. **Notification:**
The truck driver contacts his dispatch center and informs them of the accident. A worker assigned to Pump Station 4 also noticed the accident and notified Alyeska Pipeline Service Company through their emergency communications system.

The truck company's dispatch center staff notifies the National Response Center (NRC) and the ADEC's Northern Alaska Response Team in Fairbanks. The NRC notifies EPA of the

incident and the FOSC is notified through normal communication channels. The Alaska State Troopers are also notified of the accident.

Alyeska Pipeline Service Company emergency dispatch also notifies the National Response Center and the ADEC office in Fairbanks.

The ADEC State On-Scene Coordinator (SOSC) notifies the Fairbanks North Star Borough (FNSB) Emergency Manager of the incident and requests that the FNSB Hazardous Materials (Hazmat) Team be placed on alert for possible mobilization.

b. **Response Activation:**

The driver consults with the dispatch center staff and they direct him to establish an isolation perimeter of at least one-half mile around the accident site (in accordance with the Emergency Response Guidebook, Guide 157). Traffic on either side of the highway is halted by passersby who have been put to work by the truck driver. Alyeska Pump Station 4 Security personnel are also helping with traffic control pending the arrival of law enforcement officials.

The FOSC and SOSC confer via teleconference with the truck company and confirm the contents and quantity of the tanker vehicle, and receive an update on the situation.

The FOSC and SOSC also confer with the FNSB Hazmat Team and inform them of the situation and discuss possible options.

The primary objective is to ensure health and safety of all responders and the general public.

c. **Initial Response Actions:**

Evacuate personnel from the immediate vicinity of the accident, using the Emergency Response Guidebook data for hydrochloric acid (Guide 157).

Complete the notification process.

Activate the response structure to the level deemed necessary. For an incident of this nature, a full-scale incident management team is not envisioned.

Ensure notification of resource trustees and land owners/managers using Emergency Notification Checklist. A preliminary review of the land management maps in the North Slope Subarea Contingency Plan indicates that the land is categorized as State-selected, while the Federal land manager is the Bureau of Land Management.

Activation of an Emergency Operations Center is not deemed necessary. The truck company's dispatch center in Fairbanks will coordinate all activities related to the response (at the direction of the on-scene, RP Incident Commander).

The spill occurs in the ditch very close to or over the APSC fuel gas line running to Pump Station 4. Responders should also determine any potential impacts to the gas line and initiate actions to protect the line, if necessary.

Evaluate the Responsible Party's plan for securing the source.

Ensure preparation of a Site Safety Plan prior to any entry into the area.

7. Spill Response Organization: Establish a basic command structure as described in the Unified Plan, Annex B. Include FOSC representative, SOSC representative, and RP's Incident Commander. The response group agrees to convene on scene and manage the situation. The Unified Command (FOSC, SOSC, and RP IC) agree to establish a general staging area at Galbraith Airport (in coordination with Alyeska Pipeline Service Company).

8. Containment, Countermeasures, and Cleanup Strategies:

Determine the location and extent of the leak and secure the source.

Remove as much of the tanker's remaining liquid cargo as possible by pumping it into another tanker truck. A serviceable, MC312 tanker is not immediately available to offload the remaining liquid. Alaska West Express (Fairbanks) does have an MC312 tanker, but it does not meet DOT regulations due to a bottom discharge configuration. A waiver from DOT will be required to use this tanker truck. Another option is to use a vacuum truck, but additional safety precautions must be taken. The receiving tank must be rubber-lined, and the tank must not contain any residual chemicals that could react with the hydrochloric acid solution.

After the State Trooper completes his/her on-scene investigation, the overturned truck will be carefully raised into an upright position and towed back onto the highway.

Determine whether neutralizing the acid-soil mixture will be an effective countermeasure. Neutralization of the spill in situ, if possible, should be the priority cleanup option rather than excavation and removal of soil. This would minimize vegetation/organic soil disruption and permafrost degradation in the immediate area. The minimization of permafrost degradation is particularly important if the fuel gas line is next to or underlies the spill area, as there have been problems in the past with erosion along the fuel gas line ditch.

Minimize any removal and excavation of contaminated soil.

9. Response Requirements:

a. **Equipment:** Any action to contain, plug or prevent additional release will require the use of appropriate personal protective equipment (PPE).

b. **Personnel:** Personnel responding to this incident (State Troopers, firefighters, and other responders) will be required to be trained to at least the first responder awareness level. Those entering the scene to secure the leak source and initiate cleanup and containment will require training to the technician level.

10. Resource Availability and Resource Procurement: The Alaska State Troopers will respond to this incident upon notification. Additional resources, outside of those provided by the first responders will be the responsibility of the Responsible Party. An incident of this size will require evacuation of the immediate area around the accident site, and an isolation perimeter of at least one-half mile is required.

11. Shortfalls:

a. **Equipment:** Firefighting equipment and law enforcement vehicles will be needed as a precautionary measure in the event the tanker truck and product ignites, and to control traffic/limit access to the incident; the Fairbanks Hazmat team will most likely not be deployed unless the situation deteriorates further. The trucking company, serving as the Responsible Party, will be coordinating with Alaska West Express in Fairbanks, who maintains a trained Hazmat response team. The team will be dispatched to secure the source and initiate cleanup.

b. **Personnel:** Due to the location of the accident and the localized hazard (i.e., liquid hydrochloric acid on the ground), additional emergency response personnel are not deemed necessary. Alyeska Pipeline Service Company, acting as a Good Samaritan, offers to provide assistance with the overall response under the direction of the Responsible Party or the SOSC/FOSC.

c. **Funding:** Funding of response and clean-up actions will be the responsibility of the Responsible Party.

d. **Minimum Response Times:** Response should be initiated immediately. Based on the location of the incident, the State Trooper, SOSC, and the RP's designated Incident Commander will arrive at the scene via helicopter by early afternoon (a few hours after the incident.) The FOSC, deploying from Anchorage, is expected to arrive at the scene sometime in the evening.

12. Spill Cleanup Timetable: This response should last no more than several days. Cleanup of the immediate area will be required, and contaminated soil will need to be collected and transported. The RP indicates that he will transfer the remaining liquid to another tanker (or suitable container) and remove the vehicle from the culvert (using a heavy-duty tow truck). The cleanup crew will then attempt to neutralize the acid-saturated soil, and minimize excavation and removal of the remaining contaminated soil as necessary.

13. Disposal Options: Some waste material will be generated during this response; however, there are no facilities in Alaska that are licensed to accept hazardous materials. All wastes generated in this response will have to be contained and transported to a facility in the continental US in an EPA, ADEC and DOT-approved manner.

14. Cleanup Termination: The FOSC and SOSC will determine the appropriate time to terminate cleanup operations based on the RP's ability to return the accident site to an acceptable condition.

SCENARIOS: PART THREE – INLAND OIL

A. WORST CASE SCENARIO

Size of the Discharge: 40,000 bbls 25-30 API Crude Oil

Event Description: Corrosion in the Trans Alaska Pipeline has resulted in a pipeline rupture. The release is presumed to have started as a small leak which rapidly degraded to a pipeline rupture. An unknown, (to be determined) malfunction delayed the detection and shutdown of the pipeline for approximately 2-2.5 hours. The total amount released is estimated at 40,000 bbls

Location: At PLMP54, south of location where pipeline comes above ground. Lat/Long: 69º 30' 36" N 148º 33' 54" W. Between check valves 13 & 14.

Alyeska Pipeline Service Company. Trans Alaska Pipeline System Pipeline, Oil Discharge Prevention and Contingency Plan, 2011: Sagavanirktok River Contingency Area 1, Prudhoe Response Base. C-Plan Map 7; Aerial Map 29

Spill: The release rate is estimated at 280 bbl/minute. Oil is flowing east and north into the Sagavanirktok (Sag) River and adjacent tundra, marshes, and ponds. Break-up of the Sag River is in process. High river flow, ice flows, intermittent ice jamming, unstable ice & conditions along river banks and adjacent tributaries.

The Sag River outflow overflows the Beaufort Sea sea ice creating Strudel-Scour drainage into the Beaufort along Sag River Delta. The river flows at 3.5-5 mph, decreasing to as slow as ½ mph where channels merge to form "lakes." Oil is expected to reach the Beaufort Sea approximately 12 hours after it reaches the Sag River.

Date/Time: May 25, 07:00AM

On-scene Weather: 36° F, Freezing Rain; Winds SW @ 18-32 mph

Sensitive Areas at Risk: Specific information on resources at risk can be extracted from the Sensitive Areas Section in consultation with the resource trustees. The priority environmental areas include the tundra, marshes and ponds; the Sag River and Beaufort Sea.

The Sag River is an anadromous fish stream. Arctic Grayling and Arctic Char use the Sag River side channels during break-up and open water months. Critical periods for Arctic grayling spawning occur during May and June, with the Ghost Creek complex (PLMP 40-45) of critical sensitivity for spawning and rearing. Waterfowl nest all along the Sag River, including spectacled and stellar eiders, yellow billed loons. Peregrine Falcon nesting areas are located in the Franklin Bluffs and Sagwon Bluffs. The adjacent habitiat is also some to mammals, including caribou and brown bears.

Downstream, the Beaufort Sea is critical wildlife habitat for Polar Bears and Bowhead Whales. Other species in the Beaufort Sea include seals, walrus, shellfish, subsistence fish, waterfowl and seabirds, plankton and lower trophic organisms.

The impacts of a spill of this volume are far reaching and would affect a large area. An extensive, coordinated effort between trustee agencies would be necessary to develop a comprehensive approach to environmental impact abatement. The Sensitive Areas Section provides a framework for accomplishing this task.

6. Initial Actions:

a. **Notification:** Operations control center detects the spill from the pipeline leak detection system and notifies North Slope mutual aid partners including Alaska Clean Seas. Alyeska personnel immediately notify the NRC and the ADEC. NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate Federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

*** ADEC (also notified by the responsible party)
* ADNR
* ADF&G
* ADMVA, DHSEM
*** ARRT
*** NRC, National Response Center
*** USCG
*** DOI
*** DOC
*** NOAA SSC, Scientific Support Coordinator
** NSFCC, National Strike Force Coordinating Center
** NPFC, National Pollution Fund Center
*** North Slope Borough
*** Local Emergency Managers of directly impacted communities
*** Federally-recognized tribes in impacted communities

Key: * = Notification initiated by State
** = Message notification
*** = Notification by FOSC

b. **Response Activation:**

- Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc.
- Dispatch representatives to the scene at the first opportunity
- FOSC/SOSC/PRP Representatives establish direct communications.
- Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.
- Evaluate spill size, direction, area of coverage, proximity to Sag River, wildlife impacts, wildlife observed in area, on scene weather, etc.
- Determine what response actions have occurred or are underway
- Issue Notice of Federal Interest and State Interest to PRP

- Consult with DOI, DOC and the State of Alaska on potential resources at risk.
- Conduct Endangered Species Act consultation with DOI and DOC.
- Activate COSC's Historic Properties Specialist.

c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:**

- Dispatch pollution investigators (EPA Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification.
- Recognize that information will come from individuals on scene that may or may not be knowledgeable of emergency procedures or pollution response. Conflicting reports can be expected during the early phases of gathering information.
- Ensure notification of resource trustees using the Emergency Notification Checklist.
- Evaluate PRP's plan for securing the source.
- Evaluate the capability of the PRP to carry out an appropriate response given the situation.
- Prepare Initial POLREP (EPA).
- Prepare Initial SITREP (State).
- Instruct PRP to develop *in situ* burning (ISB) plan, in accordance with the ISB Guidelines in **Unified Plan, Annex F** for consideration and to begin marshaling resources for burning activity. This will include preparations for air monitoring for particulates.
- Instruct PRP to determine his/her ability to mechanically recover spilled product prior to reaching Sag River; in Sag River under different anticipated conditions (open water, fully iced and break-up conditions); in Beaufort Sea/sea ice.
- Evaluate capability to contain and recover oil in 100% ice cover conditions in Beaufort Sea using innovative techniques appropriate to arctic conditions.

d. **Initial Response Actions:**

- *Secure the Source. The pipeline is immediately shutdown and spill response team personnel mobilize with equipment to locations preplanned in Alyeska's contingency plan.*
- Activate the response structure to the Spill of National Significance (SONS) level.
- *The Federal/State Unified Plan and North Slope Subarea Contingency Plan are also implemented.*
- Using **Unified Plan, Annex B** Implement the Incident Command Systems (ICS) principles listed below. An EPA Federal On-Scene Coordinator (FOSC) and an ADEC State On-Scene Coordinator (SOSC) contact Alyeska's Incident Commander and establish a Unified Command. By 5:00 PM that night a Unified Command and incident management team composed of industry, federal, state and local government personnel arrive at Alyeska's emergency operations center in Fairbanks, AK.. Additional initial Unified Command tasks include:
    1. Evaluate PRP's capability to carry out an appropriate response.
    2. Determine name of incident.
    3. Determine goals and objectives
    4. Determine UC staff and size- Liaison and RSC positions are critical for this region.
    5. Establish an appropriate ICP to support UC activities- Plan for Prudhoe Bay.
    6. Establish a Joint Information Center (JIC). Ensure joint website and/or

appropriate local stakeholder communication plan is used to maximize information sharing.

- *The ADEC SOSC initiates a statewide callout for a Type 1 incident. Additional ADEC spill responders from other response areas are mobilized, and the SOSC also requests mobilization of other State agency support personnel.*
- *The ADEC SOSC and EPA FOSC also activate the ADEC term contractors and EPA START contractors, respectively. The contractors are notified for possible mobilization to assist with the federal and state oversight operation.*
- *Both Federal and State field observers are deployed to the initial control sites to monitor clean up operations and advise the FOSC and SOSC of the status of on-going operations.*
- Deploy containment boom and/or plan and prioritize shoreline protection and cleanup areas. Utilize established Geographic Response Strategies (GRS), when possible.
- Utilize local knowledge, SSC and other NOAA hazmat resources as necessary to predict spill trajectory and potential impacts. Estimate locations and time of travel of oil into the Sag River. Estimate time of oil discharge into the Beaufort Sea.
- Establish local (Anchorage) command post while individuals are en route to the field command post and plan for relocation to Prudhoe Bay.
- Prepare initial press release with the Unified Command.
- Complete notification procedures. Include up-channel notification to include the RRT, NPFC, and NSFCC.
- Issue Notice to Airmen, through the FAA, restricting aircraft traffic in the immediate vicinity of the incident.
- Ensure preparation of Site Safety Plan.
- Consider alternatives to mechanical response: dispersant application, *in situ* burning. The use of dispersants is not appropriate due to the inland/fresh water location of spill and the ice conditions in the Beaufort Sea. *In situ* burning is an appropriate measure and warrants further consideration and planning. Complete the ISB Guidelines for Alaska, Application and Burn Plan and the FOSC/SOSC Review Checklist found in the **Unified Plan, Annex F**.
- Schedule routine overflights of the impacted area. Request FAA support in developing an aviation operations plan for the spill to control air traffic in the area.
- In consultation with trustee agencies, determine requirements for wildlife protection, collection, and rehabilitation.
- Consult with natural resource trustees on the protection of sensitive areas and resources.
- Consult with the Historic Properties Specialist on the protection of historic properties.
- Receive recommendations from trustee agencies on wildlife response strategies. Make decision on any recommendations (e.g. migratory bird deterrent and capture and treatment program.)
    i. Initiate wildlife hazing.
    ii. Additional measures may be initiated during subsequent operational periods, beyond the initial response.
- Determine feasibility of removal actions based on:
    - Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
    - Can cleanup be initiated before the pollutant disperses, making recovery impractical?
    - Can equipment be deployed without excessive risk to the life and health of

personnel?

- Considerations for future actions:
  - Possible transfer of authority from EPA to CG if much of the impact is to the coastal zone.
  - Determine any fisheries impacts, including subsistence fisheries, and take appropriate action.

7. Spill Response Organization:

A spill of this magnitude would normally be declared a Spill of National Significance (SONS). If the Unified Command determines the spill to be a SONS, the command structure, roles and responsibilities of a SONS scenario are identified in the **Unified Plan, Annex B**. The pre-designated FOSC for the region becomes the Area Operations Coordinator. The SONS incident continues as a Unified Command response. The fact that an incident is declared a SONS does not indicate that the response has been poorly managed or that anyone has performed poorly. The escalation of an incident into a SONS is intended to make more resources and personnel available for the response.

A Liaison Officer will be assigned to act as a sounding board for landowners, leaseholders, affected interest groups that have no jurisdictional authority, and other interested parties. The Regional Stakeholder Committee will be formed to serve as the official stakeholder and community representative voice to the Unified Command.

8. Containment, Countermeasures and Cleanup Strategies:

Immediate containment is required to mount an effective recovery operation.

A spill of this volume that is not contained immediately but is allowed to spread will likely not be recoverable under these conditions. The time required to mount an effective response added to the extraordinary travel time and logistical difficulties will make this operation a challenge.

- In accordance with Alyeska Pipeline's Trans Alaska Pipeline System, Pipeline Oil Discharge Prevention and Contingency Plan, response tactics to contain and cleanup the spill are implemented. Primary objectives are:
  - Prevent oil from reach the Sag River.
  - Contain oil in side channels of the Sag River.
  - Prevent oil from reaching Beafort Sea.
  - Minimize disturbance of raptor nests by aircraft.

  Tactics to achieve these objectives include:
  - Contain spill, to extent possible, to pipeline right-of-way with berms and channel plugs and by blocking drainage structures.
  - Oil in Side Channels: If ice conditions permit, use booms to contain oil in the side channels of the Sag River.
  - Oil in Main Channel: Depending on ice conditions in the main channel, booms and berms should be used to divert oil into designated containment areas or along the shore.
  - Oil in permeable thaw-stable soil: Construct transverse ditches downslope of spill site.
- Evaluate/determine feasibility of *in-situ* burn.
- Organize Shoreline Cleanup Assessment Teams (SCAT) in preparation for shoreline

surveys.

- Ensure the migratory bird deterrent, capture and treatment program is in place.
- Ensure that trustee agencies with responsibility for determining the requirement for implementation of a Federal/State Natural Resource Damage Assessment (NRDA) are notified that wildlife may be affected. The lead trustee will then coordinate the NRDA separate from the response and with funds provided by the NPFC.
- Request NOAA provide spill tracking and trajectory modeling to determine present location and path of spill. Consider spill tracking/surveillance systems; the University of Alaska Fairbanks' Synthetic Aperture Radar facility, USCG Forward Looking Infrared Radar equipped aircraft, and USCG Side Looking Airborne Radar are potential resources.

- Response procedures for on-ice/under-ice recovery are located in the Alaska Clean Sea Technical Manual (http://www.alaskacleanseas.org/tech-manual/).

9. Response Requirements:

a. **Equipment:** The nearest equipment will be located at Pump Station 2. This *equipment staged will need to be augmented with additional equipment, including but not limited to boom, vacuum units, super suckers, earth moving equipment and other oil recovery equipment to insure timely recovery. It is possible that additional equipment can be brought in a timely manner from North Slope mutual aid partners to respond to this spill volume. Cold weather could complicate recovery operations by disrupting the effective use of the various pieces of equipment.*

Quick deployment of containment measures, high volume oil recovery equipment and other mechanical collection equipment is essential to ensure success of the response and to mitigate spill damage. A spill of this size and location will require all area response equipment as well as out-of-region response equipment in a joint coordinated cleanup effort. Section B of this plan (North Slope SCP) includes a list of some of the equipment available in or deployable to the North Slope subarea. In addition, ACS maintains a list of their equipment in the ACS Yearbook.

b. **Personnel:** Initial Alyeska response personnel would likely have to be augmented by ACS and mutual aid partners. The Alyeska and ACS crews should be capable of deploying equipment and recovering product with assistance of other partners.

c. **Additional Mobilization of Government Personnel:** This scenario contemplates an adequate response by Alyeska and ACD. In such an instance the Federal On-Scene Coordinator and State On-Scene Coordinator will provide oversight of the response through the Unified Command. Additional federal and state agencies with roles and responsibilities in the federal and state response systems as detailed in the National Contingency Plan and the Alaska Unified Plan will be integrated into appropriate sections within the incident command system. The following provides examples of such integration but is not meant to be totally inclusive of all-possible roles and responsibilities for assisting agencies.

Operations oversight of field teams will be accomplished by placing government monitors from EPA, US Coast Guard's Pacific Strike Team, and ADEC personnel with industry task forces.

Shoreline Clean up Assessment Teams utilized to survey spill impacted areas and recommend treatment methods will be composed of EPA, ADEC, state land managers, cultural resource specialists and industry representatives. Composition of teams will follow general guidance found in NOAA HAZMAT publications, the North Slope Shoreline Oil Spill Countermeasures manual, and other pertinent documents.

Individuals from USFWS and ADF&G will monitor wildlife teams involved in hazing and capture.

The Incident Management Team's planning section will be supplemented with technical specialists from the following government agencies;

- Waste Management - EPA / ADEC / NSB
- Pipeline Repair – US DOT PHMSA / ADEC
- Wildlife Protection – USFWS / ADF&G
- Cultural Resource Protection – Federal & State Cultural Resource Contract Specialists
- Land Management – ADNR & NSB

These personnel will facilitate the overall response operation by assisting the FOSC and SOSC in authorizing and permitting activities under their jurisdiction when appropriate. This is not an all-inclusive list.

10. Resource Availability and Resource Procurement.

For the purposes of this scenario, it is assumed that agreements would be reached between all involved parties (EPA, USCG, State of Alaska, Alyeska, ACS) that would allow the resources of the spill cooperatives to be brought into the response. This assumption does not imply that such agreements are currently in place or that such agreements would be reached. The PRP and ACS have highly organized management teams knowledgeable in the ICS structure and routinely exercise their roles as responders. A communications network is already in place and available for immediate usage.

Procuring the resources identified in this spill response is the PRP's responsibility. A spill of this magnitude would likely exceed $1 million each day during the initial stages of the response. Committing this volume of funds in a short time is essential. Failure, on the part of the PRP, to quickly settle accounts payable can quickly force local businesses out of business. Experience acquired during past spills has shown that funds must be processed at a much higher than normal rate to maintain the response. The Oil Spill Liability Trust Fund is available to the FOSC in the event the PRP is unable or unwilling to pay the costs of the spill response. Any FOSC or State expenses not directly covered by the PRP would be paid through the Federal Oil Spill Liability Trust Fund or the State 470 Fund, and reimbursement would be sought at a later date.

11. Shortfalls

a. **Equipment:** The primary equipment shortages are expected to in regards to specialized transportation equipment: helicopters, Rolligons and air boats. Adequate PPE on or near water will also be a concern and not initially available in adequate quantities. "Mustang" suits, float coats, dry suits, or inflatable PFDs will be preferable for sustained operations compared to cool weather clothing plus a standard PFD.

b. **Personnel:** None anticipated.

(1) Housing – Prudhoe Bay hotels/dormitories and potentially on-site “field camps” will be required to sustain the response. Several organizations in Alaska cater "field camp" setups which include housing and feeding facilities. These facilities are available in flyaway form. However, these camps may have limited availability/already be in use by late May. It is expected that field camp facilities for housing, dining and work space will need to be transported to the site and/or Prudhoe Bay from vendors in the Lower 48. This may take several days to arrange, transport and set-up. Additional considerations for a field camp will include water, electricity and heating. Depending on the location(s) of field camps, existing gravel pads may not be sufficient for staging. The surrounding tundra is in the process of thawing – arrangements will need to be made with ADEC and industry for the construction of additional gravel pads or re-siting camp and staging area locations.

(2) Food - Catering services for field personnel would likely be procured coincidentally with the remote housing units. Catering for response personnel not deployed to the field could be handled using resources within the region. However, catering service may need to be brought in from either Fairbanks or Anchorage, AK.

(3) Fuel – Fuel is transported daily to Prudhoe Bay via multiple trucks. Arrangements for remote fueling stations would need to be arranged to supply the numerous vehicles and equipment operating in the area.

(4) Transportation: Prudhoe Bay is the only major commercial airport located in the immediate vicinity of the spill area, and would serve as the primary logistics supply points. In most cases, equipment must be transported to the area via the Dalton Highway or by air into Prudhoe Bay. Personnel would arrive via air to Prudhoe Bay. Favorable weather conditions are also a major factor in both air transportation for personnel and equipment.

Transportation across Tundra: The Alaska Department of Natural Resources has closed the tundra for transportation and other activities. A variance will be required to transport personnel and equipment to the Sag River and adjacent lands. A Rolligon will be required for transportation across the tundra. Other vehicles will be unable to traverse the conditions and/or cause either an unacceptable amount of damage.

Air Transportation: Helicopters will be required to transport personnel to areas inaccessible by Rolligon. Fixed wing aircraft may be utilized for overflights to assess conditions, but will have limited functionality in other response activities. Activities on the Beaufort Sea will require helicopter transportation and support until the open water season, 2+ months after the spill.

Boats: Boats will not be deployable into the Sag River until the river is ice-free. Side channels may be ice-free prior to the main channel, allowing for limited operations. The number of readily available boats, capable of handling the conditions of the Sag River will likely be limited to those in the ACS inventory.

Travel on the Beaufort Sea: At the time of the spill, the Beaufort Sea ice is beginning to break up. An open water bay is forming at the Sag River delta. There is no precedent for safe travel across or operations on sea ice in these conditions. Vessel operations will be restricted until the open water season, expected to begin between late July and early August. Initial transportation and operations on the sea ice will be by helicopter.

(5) Manpower and Training: Shoreline cleanup crews will require OSHA level Hazwoper training commensurate with the tasks they will be directed to perform. Volunteers will not be solicited, and individuals desiring to help will be directed to a central coordinator for hiring emergency response workers.

c. **Funding:** Funds availability and access should pose no problem regardless of the financial capabilities of the PRP. If funding problems arise, the FOSC has access to the Oil Spill Liability Trust Fund and procedures are in place to make these funds available. The SOSC, in the event of a State funded response, has access to the 470 Fund and procedures are in place to make these funds available as well.

If the spill is "Federalized," problems have been identified regarding the payment of accounts due. The response organizations will likely be unable financially to expend the amounts of money anticipated if reimbursement occurs on a 30 day payout. Ten days, as a maximum, has been discussed as the period when receipts must be paid. Failure to pay in this time period could result in a collapse of the logistical supply line, and therefore the response. Federal contracting personnel must evaluate this requirement and determine a feasible solution.

d. **Minimum Response Times:** Emergency response personnel should respond as soon as possible to the spill site with safety parameters in mind. Estimated time from Pump Station 2 to the spill site is XXX minutes. Estimated time from Prudhoe Bay to the spill site is XXX hours. *{Note: Times to be inserted after input from ACS and/or Alyeska}*

12. Spill Cleanup Timetable:

The spill response will continue until all recoverable oil is collected. Riverbank cleanup will begin as soon the river is ice-free and navigable. Operations in the Beaufort Sea may be hampered and/or delayed due to the sea ice, which has not yet melted. Shoreline cleanup will begin as soon as possible. On-land cleanup will continue until all recoverable oil is collected and satisfactory soil cleanup levels are reached, as determined by ADEC. The initial response phase is expected to transition to a management phase after 1 month. Shoreline cleanup will continue until freeze-up.

Ongoing monitoring may continue beyond this period. Depending on the extent of oil released into surrounding tundra and muskeg or to wetlands adjacent to the Sag River, oil may continue to leach out for an extended period of time, and would require monitoring.

13. Disposal Options: Debris disposal is the responsibility of the PRP. The volume of oil contaminated debris will exceed the disposal capability of the region, unless on-site disposal methods are approved by the appropriate agencies. The PRP must present a disposal plan to appropriate agencies along with necessary permits for the requested disposal plan. Disposal options for debris are limited in Alaska.

Information on waste streams and typical waste products that will be generated during a response is contained in this Subarea plan in the Response Section, Part Two and in the **Unified Plan, Annex E, Appendix II**. This scenario will generate a very large volume of oil contaminated equipment and recovered product. The remoteness of the region will complicate disposal and elevate the costs of handling and transportation. The availability of shipping and storage facilities make it difficult to

comply with the time frames contained in hazardous waste handling regulations. The task of managing waste disposal must be approached aggressively and very early in the response. Facility/vessel owners must investigate and identify potential staging areas for contaminated debris and equipment as well as the potential for long-term storage capabilities due to severe weather preventing timely transportation disposal of accumulated waste. Also, areas designated for cleaning contaminated equipment must be able to handle the contaminated runoff.

14. Cleanup Termination. Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the water, on adjoining shorelines, or in places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health or welfare, or the environment; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

B. MAXIMUM MOST PROBABLE SCENARIO

1. Situation: An oil transit pipeline between Gathering Centers (GCs) leaks as a result of corrosion of the pipeline wall. The gathering centers are located within an oilfield operated by BP Exploration Alaska, Inc. (BPXA). The transit pipeline, which is positioned on a support rack several feet above the tundra, carries processed crude oil. The small diameter leak is not detected for several days. The oil migrates under snow cover to adjacent tundra until it is detected by odor by passing oilfield employees.

2. Location: Between GC2 and GC1 at a location where the pipeline passes through a caribou crossing. The site is at latitude 70.307° N and longitude 148..816°W

3. Spill Information: On March 2 at approximately 6:00 AM, BPXA employees discover a release of crude oil from a 34-inch diameter pipeline. Approximately 200,000 gallons of crude oil is released to adjacent tundra, impacting an area of about 2 acres. The oil migrated along the frozen tundra surface, under snow, to the edge of a frozen lake. Winter weather conditions exist.

Date: March 2

On-Scene Weather:	Winds	N @ 20 kts
	Temperature	-32° C (-25° F) with wind chills to -51° C (-60° F)
	Daylight	Approximately 9 hours per day
Ground conditions:	Snow-covered frozen tundra with ongoing drifting snow throughout the response	

4. Cargo Salvage: Not applicable.

5. Sensitive Areas at Risk: See Sensitive Areas Section of this plan.

6. Initial Actions:

a. **Notification:** BPXA personnel immediately notify the NRC and the ADEC. The NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate Federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

*** ADEC (also notified by the responsible party)
* ADNR
* ADF&G
* ADMVA/DHSEM
*** ARRT
*** NRC
*** NOAA Scientific Support Coordinator
** NSF
** NPFC
*** Local Emergency Managers of directly impacted communities

*** = Notification by FOSC
** = Message notification
* = Notification by State

b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not

controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.

c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:** Dispatch pollution investigators (EPA Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification. All information must come from individuals on-scene that may or may not be knowledgeable of emergency procedures or pollution response. Conflicting reports can be expected during the early phases of gathering information.

d. **Initial Response Actions:** BPXA immediately takes steps to shutdown the pipeline and mobilize spill response team personnel and equipment to the incident site. Within hours of the leak discovery, BPXA activates their Incident Management Team (IMT), establishes an emergency operations center at the Prudhoe Bay Operations Center (PBOC) housing/operating facility, and activates their primary oil spill response contractor, Alaska Clean Seas (ACS).

By 1100 hours ACS personnel have mobilized to the site and confirmed the presence of oil on the ground around the GC2 oil transit pipeline. Overflights of the site by aircraft equipped with forward-looking infrared radar (FLIR) are initiated to assess the extent of contamination.

An EPA FOSC and an ADEC SOSC travel to the North Slope and establish a Unified Command with BPXA's Incident Commander and a representative of the North Slope Borough by the evening of March 2. BPXA and its contractors continue ramp up activities to support 24-hour operations.

The ADEC SOSC initiates a statewide callout for a Type 1 incident. Additional ADEC spill responders from other response areas are mobilized, and the SOSC also requests mobilization of other State agency support personnel. The Federal/State Unified Plan and North Slope Subarea Contingency Plan are also implemented.

The ADEC SOSC and EPA FOSC also activate the ADEC term contractors and EPA START contractors, respectively. The contractors are mobilized to assist with the federal and state oversight operations.

State field observers are deployed to the release site to monitor clean up operations and advise the FOSC and SOSC of the status of on-going operations.

Initial response actions and objectives include:

- Ensure health and safety of personnel
- Activate the response structure to the level deemed necessary
- Complete notification procedures
- Mobilize resources to the North Slope
- Establish source control
- Determine spill path, resources at risk and wildlife impacts
- Prepare Initial POLREP (EPA)
- Prepare Initial SITREP (State)
- Determine feasibility of removal actions based on:

1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?

2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?

3) Can equipment be deployed without excessive risk to the life and health of personnel?

7. Spill Response Organization: Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, PRP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. Containment, Countermeasures and Cleanup Strategies: The initial assessment of the area by spill responders and FLIR indicates oil migrated under snow away from the transit pipeline. Sufficient mobile oil is pooled adjacent to the pipeline to allow for recovery by vacuum truck or supersucker.

Initial response operations include operation of multiple vacuum trucks to recover mobile oil. Recovered oil is transported to a storage tank at Flow Station 2 for storage and subsequent measurement. Assessment teams are deployed to determine the limits of the impacted area. Equipment is utilized to create snow berms around the area to limit additional migration of oil and create a visual demarcation of the impacted area. Ice-auguring conducted at the lake determines that the lake is completely frozen.

Teams are established to assess the pipeline and locate the leak. Exposed segments of the 3 mile pipeline are covered with insulation. The pipeline also transverses several caribou crossings, which makes it difficult to determine the exact location of the leak.

Removal of contaminated snow is employed for areas where recovery by vacuum truck is not feasible. Contaminated snow was transported offsite to a nearby pad for melting and recovery of oil. Once free-product recovery efforts slow, cleanup work transitioned into a surface remediation effort consisting of the removal of contaminated ice and tundra vegetation by trimming.

The weather conditions and logistical difficulties in mobilizing necessary equipment to the site will make this operation a challenge. The PRP also must take actions to protect wellheads and other facilities that had to be shutdown in order to stop the flow of oil within the transit pipe.

9. Response Requirements:

a. **Equipment:** The equipment maintained by ACS and BPXA may need to be augmented with vacuum units, supersuckers, and possibly other oil recovery equipment from mutual aid partners to insure timely recovery. It is possible that additional equipment can be brought in a timely manner from Fairbanks to respond to this spill volume. Cold weather could complicate recovery operations by disrupting the effective use of the various pieces of equipment.

b. **Personnel:** Initial BPXA response personnel would likely have to be augmented by their contractors on call for oil spill response and recovery. The BPXA crew should be capable of deploying equipment and recovering product with assistance of their contractors. It is expected that moderate numbers of Federal/State personnel would be required on scene. Trustees and other agencies may require augmentation or additional manpower to deal with

this spill. ACS (the oil spill response organization under contract with BPXA) may need to augment its personnel with responders from other organizations within the state.

10. Resource Availability and Resource Procurement. The PRP provides all spill response related equipment with their contractors supplementing any shortages. Any FOSC or State expenses not directly covered by the PRP would be paid through the Federal Oil Spill Liability Trust Fund or the State 470 Fund, and reimbursement would be sought at a later date.

11. Shortfalls

a. **Equipment:** Oil recovery equipment, personal protective equipment, and proper clothing for cold weather operations are a primary concern.

b. **Personnel:** None anticipated.

c. **Funding:** Funds availability and access are not anticipated to be a problem due to Federal and State capability to access their respective spill funds if necessary.

d. **Minimum Response Times:** Emergency response personnel should respond as soon as possible to the spill site with safety parameters in mind.

12. Spill Cleanup Timetable:

a. **Mechanical Cleanup Only:** Mechanical cleanup time will depend on weather conditions, which severely hamper site operations. Follow up operations may be needed following breakup to address any areas missed during winter operations. Monitors will have to be employed to patrol the area during and after breakup to report observed oil for collection and recovery.

b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

13. Disposal Options: Debris disposal is the responsibility of the PRP. Oil contaminated debris will likely be produced. The PRP must dispose of contaminated debris according to existing laws. The PRP will typically be knowledgeable in the methods and requirements for disposing of oiled debris. A Waste Management Plan will also be developed and approved by the Unified Command.

14. Cleanup Termination. Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the tundra, adjoining shorelines, or places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

C. AVERAGE MOST PROBABLE SCENARIO

1. **Situation:** A dump truck departs Fairbanks en route to Deadhorse, leaves the roadway and overturns on the Dalton Highway.

2. **Location:** The truck overturns at Dalton Highway milepost 318, which is approximately 100 miles south of Deadhorse near Pump Station 3. Polygon Creek is adjacent to the highway at this location.

3. **Spill Information:** The truck was hauling rock to the North Slope. Multiple vehicle fluids were released when the truck overturned including 200 gallons of diesel fuel (from the saddle tanks), 30 gallons of hydraulic oil, and 15 gallons of motor oil. The fluids impacted snow, tundra and the frozen bed of Polygon Creek.

Date: November 21
On-Scene Weather: Winds: Light winds, variable
Temperature: -5° C (23° F)

4. **Cargo Salvage:** Most of the fuel in the saddle tanks was lost when the truck overturned. A small amount of residual fuel was lightered from the tanks when the truck was uprighted.

5. **Sensitive Areas at Risk:** See Sensitive Areas Section of this plan.

6. **Initial Actions:**

a. **Notification:** The truck driver contacts his dispatch center and informs them of the accident. Trucking company personnel notify the NRC and the ADEC. The NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate Federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

***	ADEC (also notified by the responsible party)
*	ADNR
*	ADF&G
*	ADMVA/DHSEM
***	ARRT
***	NRC
***	NOAA Scientific Support Coordinator
**	NSF
**	NPFC
***	Fairbanks North Star Borough
***	NSB Local Emergency Manager

*** = Notification by FOSC
** = Message notification
* = Notification by State

b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support a spill of this magnitude.

c. Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:

- Dispatch representatives to the scene at the earliest opportunity.
- FOSC/SOSC/PRP establish direct communications
- Ensure health and safety of all individuals
- Coordinate with local emergency response personnel to establish a Safety Zone

d. Initial Response Actions:

- Stop any discharge from the truck, if possible
- Maintain a safety zone
- Ensure proper PPE is available and used by responders
- Activate the response structure to the level deemed necessary
- Establish a command post
- Evaluate PRP's initial actions and evaluate capability to carry out response
- Prepare Initial POLREP (EPA)
- Prepare Initial SITREP (State)
- Ensure development of a Site Safety Plan
- Determine feasibility of removal actions based on:

    1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?

    2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?

    3) Can equipment be deployed without excessive risk to the life and health of personnel?

7. Spill Response Organization: Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, PRP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. Containment, Countermeasures and Cleanup Strategies: The utmost concern in this scenario is safety due to physical hazards at the site from winter weather conditions. Initial response includes removing grossly contaminated snow and soil by hand. Contaminated willow vegetation is cut and removed. There is now running water in Polygon Creek at the time of the incident. Remediation of contaminated soil will likely be a follow-on project but is not considered part of the response.

9. Response Requirements:

a. **Equipment:** Personal Protective Equipment for response personnel required to approach the vicinity of the spill is mandatory.

b. **Personnel:** Personnel will be provided by the PRP and/or their contractors. One responder from the ADEC NART mobilized to the site to oversee response operations. The EPA FOSC will maintain communications with the ADEC to monitor the release.

10. Resource Availability and Resource Procurement: The PRP is required to have resources on hand to respond to spills. It is anticipated that adequate resources would be available from the PRP to respond to this event. Out of region resources are not considered viable for this response. However, out of region resources could be used in the remediation phase if the soil is deemed contaminated and the regulatory agencies require remediation.

11. Shortfalls

a. **Equipment:** No shortfall of cleanup equipment anticipated. Personal Protective Equipment for individuals requiring immediate access to the spill site could be a potential shortfall.

b. **Personnel:** No shortfalls in personnel anticipated.

c. **Funding:** Funds availability and access are not anticipated to be a problem due to Federal and State capability to access their respective spill funds if necessary.

d. **Minimum Response Times:** Response times in excess of one hour may prove futile with regard to recovering any free product or containment to control the migration and areas impacted by the spill. Emergency response personnel should respond immediately to the spill site to maintain safety.

12. Spill Cleanup Timetable:

a. **Mechanical Cleanup Only:** Cleanup unlikely by mechanical means.

b. **Mechanical in Conjunction with Non-Mechanical:** Non-mechanical options are not considered viable for response to this scenario.

13. Disposal Options: Debris disposal is the responsibility of the PRP. Limited amount of contaminated debris will likely be produced. Disposal procedures must meet Federal and State requirements. The PRP will prepare a cleanup/waste disposal plan and submit to ADEC for approval.

14. Cleanup Termination. Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or

b. Further removal operations would cause more environmental harm than the oil to be removed; or

c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and

d. Activities required to repair unavoidable damage resulting from removal actions have been performed.