

ALEUTIANS SUBAREA CONTINGENCY PLAN

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SCENARIOS: INTRODUCTION

In preparing the spill scenarios, the following topics were taken into consideration:

A. SPILL HISTORY

The spill history from the files of ADEC Spills Database and the NOAA Scientific Support Coordinator (SSC) provided the reference points for spill scenarios. The focus is only on significant and large spill events. This listing does not take into account the entire database of spills prepared by ADEC for the region, and small spills that had little or no anticipated environmental impact are not included in the SSC's files. (A brief synopsis of the Subarea spill history is provided in the Background Section, Part Three.)

B. HAZARD ASSESSMENT

The majority of vessel spills occur due to a combination of bad weather and equipment failure. Mariners operating in good weather and with properly-maintained equipment do not typically experience difficulties.

A portion of the Great Circle Route, a major international shipping route, is located within the Aleutians Subarea. An estimated 3,000-3,500 vessels, approximately 30-40 of them tank ships, transit through Unimak Pass each year. Approximately 65 bulk chemical tank vessels over 400 gross tons transit the area annually. Chemical cargos include ammonia, urea, liquefied natural gas, herbicides and pesticides, and chlorine. Foreign-flagged vessels transiting through this area may or may not have a federal tank or non-tank vessel response plan and Western Alaska geographic specific appendix, depending on whether they make US ports of call. See the report "Vessel Traffic in the Aleutians Subarea" for additional information. The report can be accessed at: www.dec.state.ak.us/spar/perp/docs/060920vesselreport_s.pdf

A joint ADEC-USCG study is currently underway that will address in detail risks posed by vessels transiting the Aleutians Subarea. The background and current status of this joint study can be found at the following website: www.dec.state.ak.us/spar/perp/ai_risk/ai_risk.htm

In 1991, the State of Alaska commissioned a Study of Non-crude Tank Vessels and Barges. This study (prepared by Arthur D. Little, Inc.) provides detailed summaries of the relative risks of spills, hazards, and fuel quantities transported.

C. VULNERABILITY ANALYSIS

The natural habitats of the Aleutians Subarea support extensive fish and wildlife populations that are extremely important to the social, economic, and cultural welfare of local residents. Offshore areas support a highly productive marine ecosystem, rich with intertidal, benthic, and pelagic plant and animal life that, in turn, provides nourishment for extensive populations of marine and anadromous finfish, shellfish, seabirds, and marine mammals. Rocky shorelines and cliffs provide pupping/haul-out areas for seals and sea lions and nesting areas for seabirds.

Commercial fishing and fish processing are the economic mainstays in the region. There are approximately 400 fishing vessels operating in the Aleutian Island chain. Unalaska/Dutch Harbor has developed as a seafood supply and processing center with some port development. Unalaska is

consistently the top U.S. port in volume of fish and shellfish landings; in 2005, commercial fishermen unloaded 887.6 million pounds of fish and shellfish, worth \$166 million.

In the Aleutians, Unalaska/Dutch Harbor serves as the major regional hub for the distribution of non-crude oils to the Aleutian villages, southern Bering Sea, and the offshore fishing fleet. Service in the southern part of the area is year round, but becomes ice dependent during late October to breakup. Unimak Pass and False Pass also witness heavy traffic both for transport servicing villages to the north and the Aleutian chain and for foreign-vessel transport between North America and the Far East.

Historical properties and cultural sites important to the prehistory of the region could also be negatively affected by a spill. Potential effects of spills are not limited to the initial impact of oil, since the response methods used to mitigate a spill can be more detrimental to resources than the spill itself. Therefore, appropriate response techniques need to be considered in relation to sensitive resources.

D. SEASONAL CONSIDERATIONS

In the Bering Sea, the sea ice generally begins as fast ice formation along the shores of the Seward and Chukhotsk peninsulas in October. In November, as the cold weather continues and the waters in the open portions of the Bering Sea cool, the pack ice begins its seasonal southward formation. An estimated 97% of the ice in the Bering Sea is formed within the Bering Sea; very little is transported south from the Arctic Ocean through the Bering Strait. During periods of increasing ice and prevailing northerly winds, the ice moves southward with the wind before melting at its southern limit. During periods of southerly winds, ice coverage generally decreases in the Bering Sea, causing a wide variation in ice cover from month to month.

The region's maritime climate is comparatively mild with regard to general Alaskan temperatures; however, the islands are often fog-shrouded and frequently struck by storms. The weather in the region is the result of the interaction between major weather systems that move northward across the Gulf of Alaska or eastward across the Bering Sea and the land topography. The Aleutian Islands and the Alaska Peninsula are characterized by rugged and fjord-like coastlines rising to volcanic mountainous areas up to 9000 feet in elevation.

SCENARIOS: PART ONE - COASTAL OIL

A. WORST CASE SCENARIO

Size of the Discharge: A tank vessel's partial cargo of 200,000 barrels (of the 500,000 total capacity) of a heavy petroleum product (Vacuum Tower Bottom Blend, VTBB).

Event Description: The fictitious spot charter Tank Vessel (T/V) Attu experiences a boiler failure causing partial loss of power while enroute from Alaska to a Far East port. The vessel requests and is granted permission to divert to Dutch Harbor to undergo repairs. While attempting to navigate thru Unimak Pass, the vessel is struck by a fish processing vessel. Several tanks on the starboard side are compromised. Both vessels manage to proceed to Dutch Harbor where they will undergo repair.

Location: Approximate position- Latitude 54° 25'N; Longitude 165°05'W.

Spill: 200,000 barrels (8,400,000 gallons) of the total cargo load of 400,000 barrels of a heavy petroleum product (Vacuum Tower Bottom Blend, VTBB) are released during the first few hours of the collision.

Cargo Salvage: The vessel is not considered a total loss and plans are to initiate temporary repair of the damaged vessel in Dutch Harbor, and then proceed to a major shipyard for permanent repairs.

Time of Year: April

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

Discussion: 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 sea lions, otters, waterfowl concentrations, and seabird colonies. Unimak Pass is a major transportation route for vessels transiting the Great Circle Route between North America and the Far East. Any significant spill in this area would severely impact international trade as well as local and regional users of this location. The spill also occurs in the Alaska National Maritime Refuge area.

The shoreline geomorphology in the immediate vicinity of the spill is exposed rocky shores. 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. Communities that would most likely be affected are Akutan and Unalaska. In addition, 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 notify the following:

- ADEC (also notified by the responsible party)***
- ADNR*
- ADF&G*
- ADMVA, DHSEM*
- CGD17 OPCEN***, to activate support resources including:
 - District (m), District Office, Marine Safety Division
 - DRG, District Response Group
 - DRAT, District Response Advisory Team
 - PIAT, Public Information Assist Team
 - ARRT, Alaska Regional Response Team
- NRC, National Response Center**
- NOAA SSC, Scientific Support Coordinator***
- NSFCC, National Strike Force Coordinating Center**
- NPFC, National Pollution Fund Center**
- Local Emergency Managers of directly impacted communities***
- Federally –recognized tribes in impacted communities***
- City of Unalaska***

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

2. Response Activation:

- Commence with notification of all involved parties per the Response Section, providing initial situation assessment. Be brief, concise and provide specific spill information including exact location, quantity spilled, potential threat, and whether product is still being released.
- Ensure the Responsible Party (RP) is notified and responding.
- Dispatch representatives to the scene at the earliest opportunity.
- Establish contact with the responsible party ("qualified individual") as soon as possible, and preferably with an individual on scene.
- Request immediate helicopter support through D17 OPCEN to conduct overflights of vessel. Also, helicopter support may be required if vessel must be evacuated. Request USCG cutter support through D17 OPCEN. Cutter can provide initial on scene platform.
- Commence activation/movement of in-house resources (State and Federal).
- Draft POLREP (USCG) and SITREP (ADEC) and distribute.
- 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.

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

- Gather information from overflights, crew reports, video recordings and any other reliable source to document scene and develop initial response strategy.
- Have investigation team immediately conduct drug testing of the vessel's crew and conduct

interviews to determine cause of incident.

- Determine cargo and fuel capacities. Contact last port if immediate cargo amounts are unknown.
- Collect charts and log books for evidence.
- Determine cargo salvage options and lightering potential.
- Issue Notice of Federal Interest and Letter of State Interest.
- Evaluate slick size, direction of travel, weather, area of coverage, proximity to shore, wildlife areas and potential impacts, and other relevant information that might affect response decisions.
- Establish direct communication with the Unified Command Center if it is established in the field. If no Unified Command Center is established in the field, consider using USCG Sector Anchorage conference room as the initial Command Post while USCG/ADEC personnel are enroute to the field Command Center.

4. Initial Response Actions:

- Secure the source, if possible.
- Take actions to stabilize the vessel. Notify USCG Marine Safety Center of vessel information and situation. Request stability information.
- Develop containment/booming plan for implementation as weather abates. Prioritize areas for exclusion booming, protective booming, and shoreline cleanup. Review existing GRS developed for the Aleutians Subarea, especially for Aleutians East Zone B.
- Evacuate any injured personnel or unnecessary crew members.
- Using *Unified Plan, Annex B*, implement some or all of the Incident Command System (ISC) principals ; listed below:
 - Develop a Unified Command (UC) that includes RPOSC, SOOSC, FOOSC and LOOSC (if available)
 - Evaluate RP's capability to carry out an appropriate response.
 - Determine incident name.
 - Determine goals and objectives.
 - Determine UC staff and size.
 - Establish ICP to support UC activities – Plan for remote command post location in Dutch Harbor.
 - 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.
- Prepare initial press release jointly with the Unified Command.
- Complete notification procedures. Include up-channel notification to include the RRT, DRG, DRAT, PIAT, MLCPC 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.

- 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 decisions on any recommendations (e.g. migratory bird deterrent and capture and treatment program)
- Determine any fisheries impacts, and take appropriate action.
- Consider alternatives to mechanical response: dispersant application, *in situ* burning, or destruction of entire vessel and cargo by 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.
- Evacuate crew for drug testing if possible.
- Review seafood processor protection plans and implement specific plans to protect the water intakes from any spilled oil.
- 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:

Establish command structure as prescribed in the *Unified Plan, Annex B*. The *Unified Plan* describes the Unified Command concept and provides organizational diagrams for several different situations. A spill of this magnitude could be declared a Spill of National Significance (SONS). The roles and responsibilities of the SONS structure are also 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:

- Secure the source, if possible.
- Stabilize the vessel through the best means available; fuel transfer, lightering, etc.
- Reduce the pollution potential by removing fuel from the vessel at the earliest opportunity.
- Boom the vessel at the earliest opportunity, pending favorable weather.
- If mechanical cleanup is not feasible or adequate, consider alternatives of *in situ* burning or dispersants.
- Organize Shoreline Cleanup Assessment Teams in preparation for shoreline surveys.
- Ensure the wildlife protection plan is in place and trustee agencies are working closely with RP to ensure minimum impact to resources in area.

- 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.

7. Resource Requirements

- a. **Equipment:** 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.
- b. **Vessels, Skimmers, Boom, and other Spill Response Equipment:** 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. (Mutual Aid 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); and the U.S. Navy Supervisor of Salvage (NAVSUPSALV). Resources available include, but is not limited to the following:
 - **Skimmers:** Transrec 200, Desmi ocean, Foxtail, Lori side collection, Dynamic inclined plane, Vikoma SS50, Desmi 250 and Transrec 250
 - **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 and have considerable local knowledge. 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.

- c. Personnel: Initial personnel activation will require several hours to days. The Aleutians Subarea, unlike much of the state, does have a substantial cadre of HAZWOPER-trained individuals to man cleanup vessels and participate in other cleanup and response activities.

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. MSRC 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. Firefighting 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, seafood processing facility man camps, 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 immediate area. 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: Dutch Harbor 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 SOSOC, 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 could have response personnel and equipment on scene within six 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 September 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 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:

- 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
- Further removal operations would cause more environmental harm than the oil to be removed; or
- 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
- Activities required to repair unavoidable damage resulting from removal actions have been performed.

B. MAXIMUM MOST PROBABLE CASE SCENARIO

The maximum most probable case is determined by the largest recorded oil spill to date in the Aleutians Subarea. The largest to date was the M/V Selendang Ayu on December 8, 2004. During this event, a total of 321,052 gallons of IFO 380 and 14,680 gallons of diesel were released. Due to the large size of this spill, the response actions for the maximum most probable and the worst case scenarios will not differ very much.

C. AVERAGE MOST PROBABLE CASE SCENARIO

The average most probable case for this subarea would likely be a fishing vessel that either sinks, goes aground, or otherwise creates a pollution event through the release of non-crude oil (most likely diesel). Many of the response actions outlined in the worst case scenario would remain the same, although the need for out-of-region response equipment, activation of a Unified Command, Joint Information Center, and deployment of federal and state resources would not be at the same scale. Notifications would remain the same to keep all concerned stakeholders and resource agencies informed of the incident.

SCENARIOS: PART TWO – HAZMAT

Event Description: The incident occurred on May 5. Toward the end of night shift (at 8:45 AM), during an ammonia transfer operation a “liquid hammer” occurred in the high pressure (HP) receiver. As a result of the liquid hammer a Sight Glass on the level column began to leak at the bottom of the HP receiver. The refrigeration technician first attempted to isolate the leaking Sight Glass. The technician was quickly overcome by the ammonia and left the area because of discomfort even though he was using respiratory protection. When the anhydrous ammonia release occurred, a fixed ammonia air monitor sounded an audible alarm. The liquid ammonia release is ongoing. Refrigeration people ran into the fish processing area to report the leak and clear the area after they sounded the facility evacuation alarm. During the resulting evacuation of the building, several people were overcome by the ammonia. The anhydrous ammonia release occurs at a rate of 60 lbs/min over a period of approximately one hour, for a total of 3600 lbs.

Location: The incident occurred at a seafood processing facility in Dutch Harbor, approximately 1 mile east-northeast of the City of Unalaska.

Release Information: Over a period of approximately one hour, approximately 3,600 pounds of anhydrous ammonia is released into the atmosphere. The volume released begins to slow after an hour, as the entire contents of the receiver have either been emptied or emergency shutoff valves successfully isolated the release.

Time of Year: May

On-scene Weather: Winds: Westerly at 6 mph; Temperature: 50°F; Relative Humidity: 87%; Cloudy, overcast, with showers forecasted

Sensitive Areas at Risk: Intertidal spawning salmon (May thru Sept); waterfowl concentrations; eagle nesting; seals; employees at the seafood processing facility; Small Boat Harbor; City of Unalaska and local residents.

Initial Actions:

- Initial call taken by the Unalaska Fire Department, and up-channel reporting is initiated.
- Determine and confirm personnel safety hazards in the immediate area and downwind of the ammonia release.
- Ensure public health and safety by either evacuating populace at risk or directing them to shelter in place.
- Immediate notification of ADEC via the Spill Report Hotline. Captain of the Port, Western Alaska, also receives notification simultaneously from the Marine Safety Detachment in Dutch Harbor, followed by notification from the National Response Center. Follow-on federal/state/local agency notifications are made based on the Emergency Notification List in the Response Section.
- ADEC notifies the Statewide Hazmat Response Team of the situation and the need for possible deployment.
- ADEC also notifies Aware Consulting, and activates a term contract with them for technical advice on dealing with the ammonia release and post-incident investigation.
- Activate response structure including local responders and the Statewide Hazmat Response

Team.

- Contact FAA to restrict airspace.
- Prepare initial press release.
- Due to the threat to public health and safety, the initial Incident Commander or a representative from the City of Unalaska will continue to serve as a member of the Unified Command until the threat is abated.
- Commence mobilization of response personnel.
- Incident Command System activated, and Unified Command formed.
- COTP directs the MSD to establish a Safety Zone around the facility.
- USCG drafts POLREP One. ADEC drafts and releases initial SITREP.
- USCG issues Letter of Federal Interest. ADEC issues Notice of State Interest in a Pollution Incident.
- Issue Letter of Designation.
- State of Alaska alerts additional response action contractors for possible activation, and also alerts other members of the Statewide Hazmat Response Team for additional support, if required.
- Determine if the Hazmat response is categorically excluded under the national programmatic agreement to protect historic properties, and if not, activate an FOSC Historic Properties Specialist.

Initial On-Scene Investigation/Inspection Evaluation and Recommendations:

- Develop information from facility worker reports, release size, utilize video recording as much as possible to document scene and develop initial response strategy.
- Determine overall system capacities for anhydrous ammonia, and determine potential for additional releases, in consultation with the facility manager and refrigeration specialist.
- Collect charts and refrigeration system maintenance and resupply files for evidence.

Containment Countermeasures and Cleanup Strategies: The Unified Command will coordinate and develop an Incident Action Plan to:

- Conduct initial containment,
- Establish the initial on scene command post and staging area.
- Support local responders, and provide updated information to Federal, State, local, and tribal entities.

Resource Requirements: Due to the short nature of the release, the Statewide Hazmat Response Team will likely be stood down after determination that the ammonia release has stopped. The team will remain on standby pending any further releases that may be prolonged in nature. The Aware Consulting staff person will be mobilized to Dutch Harbor along with several ADEC responders to provide additional support to the local responders.

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 (local 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.

Shortfalls:

- a. **Equipment:** The City of Unalaska does not maintain a Level A entry capable Hazmat Team. Level A PPE is not available in Unalaska, aside from limited pieces of equipment maintained by the seafood processing facility.
- b. **Personnel:** Due to the location of the accident and the localized hazard (i.e., anhydrous ammonia release over an hour's period), additional emergency response personnel are not deemed necessary, unless the release recurs over a prolonged period of time.
- 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 RP, local fire chief, and USCG will initially respond to the situation. The FOSC, SOSC, and Aware Consulting representative (all deploying from Anchorage) is expected to arrive at the scene by early afternoon.

Spill Cleanup Timetable: This response should last no more than several days. Cleanup of the immediate area will be required, and may simply consist of facility ventilation. The RP indicates that he/she will direct a complete inventory of the ammonia refrigeration system, and determine the potential for any potential releases. ADEC directs the Aware Consulting ammonia specialist to assist with the inventory and conduct a thorough inspection of the system to determine the cause of the release and potential for future ammonia releases.

Cleanup Termination: The FOSC and SOSC will determine the appropriate time to terminate operations based on the RP's ability and assurances that further releases will not occur. The investigation into the cause of the release will continue after response termination.

SCENARIOS: PART THREE - INLAND OIL

NOT USED