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July 11, 2013

Dr. Bill Ingersoll  
Chief, Plans Section  
Bureau of Ocean Energy Management  
Alaska OCS Region  
3801 Centerpoint Drive , Suite #500  
Anchorage, Alaska 99503-5823

Response to Request for Additional Information for  
2013 Geophysical Investigation  
Liberty Development  
Beaufort Sea, Alaska

Dear Dr. Ingersoll:

Attached is our response to your request for additional information regarding the 2013 Geophysical Investigation being conducted to obtain information to support identification of possible future pad island locations and for evaluating proposed pipeline routing.

If you have any questions or need additional information regarding this project, please contact me at (907) 564-4941 or via email at [mike.brock@uk.bp.com](mailto:mike.brock@uk.bp.com).

Sincerely,

Mike Brock, Environmental Team Lead  
HSE-Alaska

Attachments

2013 Liberty Geophysical Investigation  
BOEM Request for Additional Information

Comment Number	BOEM Comments	BPXA Response
1	Provide sound source verification (SSV) - number and locations	As a take of marine mammals is not expected an IHA has not been sought from NMFS. Based on this, an SSV will not be conducted. Specific mitigations to avoid marine mammal "takes" are further described in Attachment 1.
2	Provide the name of the Vessel Operator	The <i>R/V Annika Marie</i> is operated by Oceanography Research Services, Inc. The <i>R/V Ukpik</i> is operated by Southern Cross, LLC
3	Provide a listing of relevant lease blocks in text format	Federal lease blocks include OCS Y1585 and OCS Y1650 in addition to non federal leased areas shown on Figure 1 of the Project Description.
4	Provide the potential adverse environmental effects of the proposed activity and any mitigation to eliminate or minimize these effects on the marine, coastal and human environment.	Details on mitigation measures to avoid take of marine mammals is provided in Attachment 1. Attachment 2 provides a list of potential adverse environmental effects of the proposed activity and mitigations to eliminate or minimize these effects on the marine, coastal and human environment.
5	Provide vessel EPA NPDES permit	The <i>R/V Annika Marie</i> and the <i>R/V Ukpik</i> do not have an NPDES permit since there is a Congressional moratorium (initiated by Public Law 110-299 and subsequently extended by Public Law 111-215) that exempts all incidental discharges, with the exception of ballast water, from commercial fishing vessels and non-recreational, non-military vessels less than 79 feet in length from having to obtain a Clean Water Act permit until December 18, 2013. The EPA Small Vessel General Permit would provide permit coverage for these entities after that date. Sewage discharges from vessels, is regulated jointly by the EPA and the U.S. Coast Guard. The USCG regulations govern the design, construction, certification, installation, and operation of Marine Sanitation Devices (MSDs), consistent with EPA's standards. The <i>R/V Annika Marie</i> and the <i>R/V Ukpik</i> have USCG approved MSDs.
6	Provide all applicable air permits	The vessels do not have an air permit since the mobile/nonroad vessel engines are a category of equipment that are excluded from the definition of "stationary source", and therefore are exempt from stationary source permitting requirements.
7	Provide oil spill response plan (or relevant sections within).	Onshore, nearshore and offshore project activities are covered by BPXAs Oil Discharge Prevention and Contingency Plans (C-Plans), which are approved by the State of Alaska and Federal agencies, including the Bureau of Safety and Environmental Enforcement (BSEE). Controlled copies of BPXA C-Plans are sent to BSEE's Oil Spill Response Division, Alaska Region Unit. Uncontrolled copies are available upon request. To mitigate the possibility of fuel spills, refueling of the vessel is planned at West Dock. No vessel to vessel fuel transfers will occur unless it is an emergency. Attachment 3 is the <i>R/V Annika Marie</i> and the <i>R/V Ukpik</i> Vessel Response Plan (VRP). Fluid transfers will follow BPXA's Fluid Transfer Procedure provided in Attachment 4.
8	Provide wildlife interaction plan (polar bear and walrus interaction plan and Marine Mammal Monitoring program)	The Geophysical Investigation will follow the BPXA Polar Bear and Walrus Interaction Plan which is provided in Attachment 5. This document has been fully approved by the USFWS through the LOA application process. Details on mitigation measures for marine mammal monitoring and to avoid take of marine mammals is provided in Attachment 1.

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Comment Number	BOEM Comments	BPXA Response
9	Provide LOA from FWS	The request for Letter of Authorization (LOA) from the US Fish and Wildlife Service (USFWS) for incidental take of Polar Bears and Walrus is provided in Attachment 6. No activity will take place prior to an LOA being issued.
10	Provide IHA from NMFS	BPXA, with NMFS concurrence, decided not to pursue an IHA from NMFS due to the low probability of a take. Details on mitigation measures to avoid take of marine mammals is provided in Attachment 1.
11	Provide vessel mitigation measures or applicable plan	See response to comment 4
12	Provide geophysical survey mitigation measures or applicable plan	See response to comment 4
13	Confirm the aircraft will not be utilized for this ancillary activity, unless for emergency purposes.	No aircraft will be used unless it is required for emergency purposes.
14	Provide plan of communication	<p>As provided to the USFWS in support of the LOA application here is a list of individuals and organizations that BP met or formally communicated with on the Liberty project within the past 6 months:</p> <ul style="list-style-type: none"> <li>- NSB Mayor Charlotte Brower and her Chief Administrative Officer, Jacob Adams and Chief of Staff Richard Camilleri (this meeting was with BPXA President, Janet Weiss)</li> <li>- NSB Planning Department Staff, Rhoda Ahmaogak, Gordon Brower and Ned Arey</li> <li>- NSB Planning Commission presentation in April – BPXA will provide ongoing updates to the Planning Commission</li> <li>- Isaac Nukapigak, Nuiqsut Whaling Captains Association and President of Kuukpik</li> <li>- Tom Olemaun, Native Village of Barrow</li> <li>- Doreen Lampe, Inupiat Community of the Arctic Slope</li> <li>- Bob Harcharek, Barrow City Mayor</li> <li>- Rex Rock, Sr.; Crawford Patkotak, Tara Sweeney, Butch Lincoln, Jeff Kinnevauk, ASRC Corporate Officers</li> <li>- Jessica LeFevre, Counsel for the Alaska Eskimo Whaling Commission.</li> </ul> <p>We are also planning a few community based meetings in the near future:  We plan on July or early August meetings in Nuiqsut with the Native Village of Nuiqsut and the Whaling Captains Association.</p> <p>We are also working on the best timing of meetings in Kaktovik. AEWC is currently in the process of hiring a new Executive Director, but the appointment is expected soon. When the new Executive Director is in place, BPXA will schedule sessions with the Whaling Captains/Association of Kaktovik. Please note that scheduling meetings during this time is challenging given that many people in these communities are out hunting and then whaling for the subsistence foods. It is possible that meetings will be scheduled later to accommodate seasonal schedules and availability of people in the given communities.</p>

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Comment Number	BOEM Comments	BPXA Response
15	Provide orientation program information packet	BPXA has a Contractor Safety Management Program which includes an Authorization to Proceed (ATP) Procedure (available upon request) that provides direction for contractors to conduct their work in a safe and environmentally friendly manner. Part of the ATP procedure is ensuring that those conducting work are trained, knowledgeable, and competent to do the work. Attachment 7 provides the HSE training program expectations. In addition, for this project, appropriate members of the crew will have marine mammal observer training.
16	Please provide site-specific bowhead whale monitoring plan	Details on mitigation measures for marine mammal monitoring and to avoid take of marine mammals is provided in Attachment 1.
17	Left blank	
18	Request identification of boulder patch and any other biological populations or habitats within the project area.	Attachment 8 provides a map identifying the Boulder Patch area currently identified. Please note that one of the objectives of this survey is to assist in identification of additional boulder patch areas.
19	Provide orientation program information packet	Duplicate of comment 15
20	Please provide site-specific bowhead whale monitoring plan	Duplicate of comment 16
21	Provide IHA from NMFS	Duplicate of comment 10
22	Provide waste management plan	Due to the nature and duration of activity it is anticipated that the waste generation will be limited. The waste management plan for the currently anticipated waste streams is provided in Attachment 9. The Alaska Waste Disposal and Reuse Guide (Redbook) will be followed and is available upon request.
23	Provide a copy of the CAA agreement	Attachment 10 is the 2013 Open Water Programmatic Conflict Avoidance Agreement dated March 1, 2013.
24	Provide bird strike report procedures	Attachment 11 is the Liberty Ancillary Activities Bird Strike Monitoring Form.
25	Provide copies of training programs, which may include vessel and overall operational safety, marine mammals and other marine interaction.	See response to comment 15

2013 Liberty Geophysical Investigation  
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Comment Number	BOEM Comments	BPXA Response
26	<p>In accordance with Lease Sale 124 stipulations, all exploration and development and production operations shall be conducted in a manner that minimizes any potential for conflict between the oil and gas industry and subsistence activities, particularly the subsistence bowhead whale hunt. Provide any information concerning BP's activities proposed during the bowhead whale migration period, the lessee shall consult with the potentially affected subsistence communities, Barrow, Kaktovik, or Nuiqsut, the North Slope Borough (NSB), and the Alaska Eskimo Whaling Commission (AEWC) to discuss potential conflicts with the sighting, timing, and methods of proposed operations and safeguards or mitigating measures which could be implemented by the operator to prevent unreasonable conflicts.</p>	<p>See response to comment 14</p>

## **ATTACHMENTS**

- Attachment 1 Mitigations to Avoid Marine Mammal Takes and Marine Mammal Monitoring
- Attachment 2 Potential adverse environmental effects and mitigations
- Attachment 3 R/V Annika Marie and R/V Ukpik Vessel Response Plan
- Attachment 4 Fluid Transfer Procedure  
Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-01682-2
- Attachment 5 Polar Bear and Walrus Interaction Plan  
Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-00495-2
- Attachment 6 BPXA Request for Letter of Authorization for the Liberty Development Project dated June 10, 2013
- Attachment 7 Contractor HSE Training Requirements  
Document Number: UPS-US-AK-ALL-ALL-HSE-DOC- 00793-2
- Attachment 8 Boulder Patch Map
- Attachment 9 Contractor Waste Management Plan
- Attachment 10 2013 Open Water Programmatic Conflict Avoidance Agreement (CAA) dated March 1, 2013
- Attachment 11 Liberty Geophysical Investigation Bird Strike Form



# **ATTACHMENT 1**



## Mitigation Measures to Avoid Take of Marine Mammals during 2013 Liberty Summer Field Activities

BP Exploration Alaska, Inc. (BPXA) has provided BOEM with the work scope and further information about the 2013 Liberty Summer Field Activities in various submissions. This document outlines BPXA's approach to avoiding marine mammal 'takes' (under the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA)) during the 2013 Liberty Summer Field Activities.

Sound sources operating outside of the hearing range of regionally occurring marine mammals will not lead to takes as defined in the MMPA and the ESA. For the 2013 Liberty Summer Field Activities, the following summarizes relevant marine mammal hearing ranges:

1. Low frequency hearers (primarily bowhead whales), which occur well offshore from the project area and which generally do not occur there until mid August or later, are believed to hear at frequencies between about 7 Hz and 22 kHz.
2. Mid-frequency hearers (primarily beluga whales), which could occur in or near the project area but which are generally farther offshore, are believed to hear at frequencies between about 150 Hz to 160 kHz.
3. Pinnipeds, including all species of seals and walrus<sup>1</sup> that occur in or near the project area, are believed to hear at frequencies between about 75 Hz and 75 kHz under water.

Table 1 summarizes information about sound sources to be used during the 2013 Liberty Summer Field Activities. Two of these sources, the Single Beam bathymetry source and the Sub-bottom Profiler, are potentially audible to seals and whales. Note that the Single Beam bathymetry source can be operated at frequencies of 200 kHz for some purposes and will only be used at lower frequencies when necessary. Sound pressures provided in the table are assumed to be levels at 1 m from the source, with sources assumed to be point sources and levels assumed to be rms levels. If levels are in fact peak levels rather than rms levels, the potential to affect marine mammals would be less than that which is assumed here (that is, rms levels are lower than peak levels).

BPXA does not believe that the use of this equipment during the 2013 Liberty Summer Field Activities will lead to marine mammal takes for the following reasons:

- a) The work will occur in an area/time with few marine mammals. The bowhead migration will not begin to pass until well after the operation is completed (and well offshore of the operation), and seals tend to follow the ice front, away from the project area. Belugas are seldom seen this far inside the shelf break.
- b) Two of the sound sources operate at frequencies outside of the hearing ranges of marine mammals that occur in the Arctic. Those that are within their hearing ranges are at relatively high frequencies (quite high compared to airguns), which attenuate over shorter distances than lower frequency sounds.
- c) Past observations during similar operations have not documented harm or behavioural reactions that could be construed as takes.

While the take of marine mammals is not anticipated during the 2013 Liberty Summer Field Activities, BPXA will undertake mitigation as described below to further reduce the already remote possibility of potential takes of marine mammals.

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<sup>1</sup> Although walrus are regulated by the U.S. Fish and Wildlife Service, criteria for acoustic exposure and behavioral responses developed for other pinnipeds by the National Marine Fisheries Service are typically applicable.

Table 1. Summary data on sound sources to be used during 2013 Liberty Summer Field Activities.

Task	Equipment Brand Name	Model	Frequency	Sound Pressure
Single Beam bathymetry	Odom	Hydrotrac CVM	200 kHz (standard) 40, 33, 210 kHz	<215 dB re 1µPa
	Odom	Echotrac CV	24 and/or 200 kHz	<207 dB re 1µPa
Multibeam bathymetry	Reson	7125SV	200/400kHz	<223 dB re 1µPa
	Reson	8101	240 kHz	<224 dB re 1µPa
Side-scan sonar	Edgetech	4125	400/1600 kHz	<215 dB re 1µPa
	Odom	Echotrac CV SS200-0.7x50	200 kHz	<207 dB re 1µPa
Sub-bottom profiling	Edgetech	216	2-16 kHz (tuned to 2-10 kHz if necessary for AEW/C approval)	<216 dB re 1µPa Continuously variable output
	Applied Acoustic	AA-300	600 to 1200 Hz and 3.5 kHz	<216 dB re 1µPa

### Marine Mammal Mitigation

The 2013 Liberty Summer Field Activities, for the purposes of eliminating the possibility of marine mammal takes, can be divided into two parts: activities with sound sources operating above 200 kHz, and activities with sound sources operating below 200 kHz. The following mitigation approaches will further reduce the already remote possibility of potential takes under the MMPA and the ESA.

#### Mitigation Requirements for All Offshore Work

For all offshore work associated with the Liberty Summer Field Activities, including activities using sound sources that operate above 200 kHz (typically bathymetric surveys) and/or below 200 kHz (typically sub-bottom profiling):

- All vessels will avoid known marine mammals on land, ice, or in the sea by a minimum 800 meter (0.5 mile) mitigation radius. Exceptions to this rule may only be made in the event of an emergency, including navigational safety. Movements of known marine mammals will in no way be restricted by vessel operations. Vessels must avoid splitting groups of known marine mammals and making multiple changes in speed or heading when marine mammals are present.

## **Mitigation Requirements for Offshore Activities with Sound Sources Operating Below 200 kHz**

These requirements, along with requirements for all offshore work listed above, will apply to activities using sound sources that operate below 200 kHz (typically sub-bottom profiling):

- Equipment operating at frequencies below 200 kHz (some single-beam bathymetry equipment and sub-bottom profiling equipment) will not be operated when visibility is less than 800 m.
- Protected Species Observers (PSOs) on board will assure that no marine mammals are present within an 800-m mitigation radius for twenty minutes prior to use of equipment operating at frequencies below 200 kHz.
- PSOs will assure that equipment operating at frequencies below 200 kHz is shut down if a marine mammal enters the 800-m mitigation radius.
- A primary PSO with substantial qualifications and experience will oversee the PSO effort. Relief PSOs working under the direction of the primary PSO may not have previous experience as PSOs, but while working as relief PSOs they will not have other duties.
- PSOs will not stand continuous watches longer than 4 hours without a break of at least 1 hour.
- PSOs will complete the attached datasheets daily and will submit the datasheets daily to BOEM.

### **No Unmitigable Impacts to the Subsistence Hunt**

In addition to prohibiting takes of marine mammals, the Marine Mammal Protection Act also prohibits unmitigable impacts to the subsistence hunt. There is no known subsistence hunting in the project area until after about 25 August, well after BPXA's 2013 Liberty Summer Field Activities will be finished, so there are no potential unmitigable impacts to subsistence. However, if hunters enter the area, BPXA will communicate with the hunters and avoid impacts to their activities.

SIGHTING ID #: \_\_\_\_\_

OBSERVERS: \_\_\_\_\_

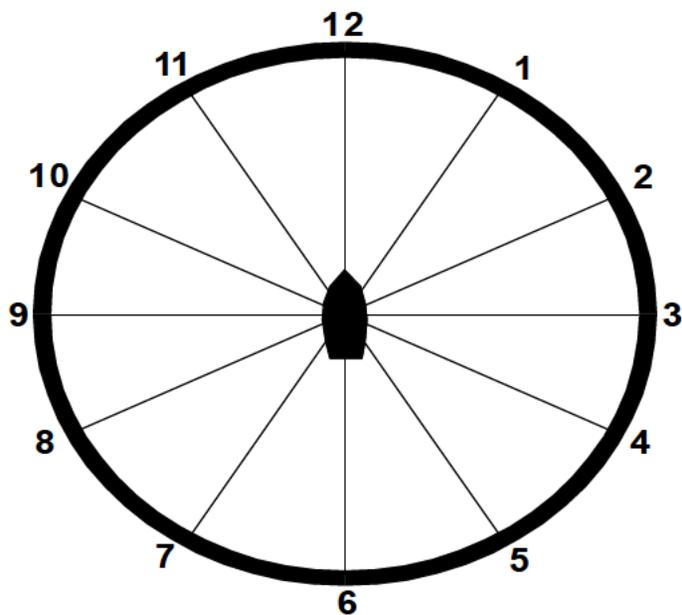
DATE:      D      /M      /Y 2013

VESSEL: \_\_\_\_\_

WEATHER Temp / Visibility: \_\_\_\_\_

TIME ZONE: AKDT

	Time			Species	Number		Where		Distance		Sight. Cue	Behav		Water v. Ice/Land	Pace	Reaction	Vessel Position				Water Depth (m)	PSO Details		
	HH	MM	SS		Total	Juv	At	To	With Reticle (#) or Eye	# Meters		#1	#2				Lat (N)		Long (W)			Obs. By	Rec. By	ID Reliability
																	Deg	Min	Deg	Min				
Initial Sighting																								
2nd Record																								
3rd Record																								
4th Record																								



Mitigation Request			
Type		HH	MM SS
PZ	Time implemented	_____	
SZ	Time implemented:	_____	

**COMMENTS**

Initial Sighting
1st Resight
2nd Resight
3rd Resight
Nr of vessels within 5 km, non-project vessel name, distance, and heading





## **ATTACHMENT 2**



## Potential Environmental Impacts and Mitigations

The proposed geophysical survey is not expected to have any significant impacts on the marine, coastal and human environment. The main potential impacts are listed in the table below;

Potential Impact	Source	Description of potential impact	Magnitude of impact
Physical damage to kelp beds and other biota within Boulder Patch	Equipment/anchor deployment	Damage to the Boulder patch could result during anchor or equipment deployment / retrieval.	The impact is expected to be minimal as any potential damage will be very localized and patchy.
Decrease of kelp growth within Boulder Patch	Geophysical survey equipment	Re-suspension of sediments from disturbance to seabed	No impacts from re-suspended sediments on the Boulder Patch are expected. No equipment is planned for deployment on the sea bottom.
Damage to flora and fauna from accidental releases	Fuel spill from vessel refueling and use	An accidental fuel release during survey activities or refueling operations	Minimal – refueling operations will only take place at West Dock apart from emergency scenarios.
Disturbance of bird nests	Vessel sounds	Noise from the vessel close to shore may disturb bird nests	Impacts likely to be negligible as the vessel activity will be away from the shoreline.
Disturbance of brood-rearing, molting and feeding birds	Vessel presence	Potential temporary displacement of long tailed ducks and other marine birds from preferred habitats.	Disturbance unlikely to result in significant impacts as the vessel will be mobile and temporary in nature.
Risk of bird-vessel collisions	Vessel presence	Impact from bird-vessel collision.	Minimal to negligible considering the size of the vessels and only day operations.

BPXA has adopted several mitigation measures that will further reduce any potential damage to the environment;

- Vessels will not anchor within any documented Boulder Patch areas, unless an emergency situation involving human safety specifically exists and there are no other feasible sites to anchor at the time.
- No refueling of vessels will occur above the Boulder Patch area. Refueling will only occur at West Dock.
- A toolbox meeting will be held among the crew prior to the start of the operations to remind them of the Boulder Patch mitigation requirements.

- Full adherence to fuel transfer procedures and Oil Spill Prevention and SPCC plans where appropriate.
- Scheduling and location of geophysical activities will minimize the potential disturbance of nesting birds.
- The vessels proposed for geophysical activities are relatively small and bird mortality resulting from collisions with vessels is not expected to be an issue. In case bird/vessel collisions occur a reporting protocol will be followed by the crew.

## **ATTACHMENT 3**



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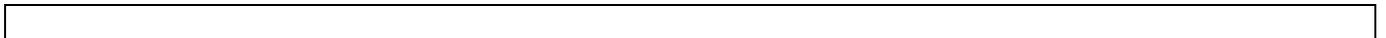
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#### **Appendix**

**Appendix: U.S. COTP Zone Information**

**Appendix: Emergency Procedures Checklists**



## SECTION 1

### GENERAL INFORMATION AND INTRODUCTION

#### 1.0 INTRODUCTION

- 1.1 GEOGRAPHIC AREAS COVERED BY THIS PLAN
- 1.2 HOW TO USE THIS INTEGRATED VESSEL RESPONSE PLAN
- 1.3 LIST OF DOCUMENTS REFERENCED IN THIS PLAN
- 1.4 COTP ZONE BOUNDARY DIAGRAM
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#### 1.0 INTRODUCTION

*This plan contains all information and operational instructions required by the guidelines (Resolution MEPC.54 (32). The appendices contain names, telephone numbers, telex numbers, etc. of all contacts referenced in the plan, as well as other referenced material. .*

This Integrated Plan complies with the requirements for Vessel Response Plan (VRP) under the Oil Pollution Act of 1990, as detailed by the USCG 33 CFR Part 155, et al Response Plans; Final Rules: and Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with requirements of Regulation 37 (formerly Reg. 26) of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). This plan is to be implemented in conjunction with the applicable Area Contingency Plan, and any other shore-based plans with jurisdiction in the area of the incident.

Without interfering with ship owners' liability, some coastal States consider that it is their responsibility to define techniques and means to be taken against an oil pollution incident and approve such operations which might cause further pollution, i.e., lightening. States are in general entitled to do so under the International Convention relating to intervention on the High Seas n Cases of Oil Pollution Casualties, 1969 (Intervention Convention).

#### 1.0.1 PURPOSE

The purpose of this is to prevent the operational or accidental discharge of oil into the marine environment, and if such discharges do occur, to:

1. Rapidly and accurately notify proper Federal/State authorities, officials and pre-arranged shoreside response organizations.
2. Contain, control and mitigate any discharge of oil to the extent that personnel and vessel safety are not compromised.
3. Cover all events, ranging from a mere visible sheen, a spill of major proportions, or to any other accident or event that threatens the safety of the crew, the vessel, or the environment.
4. Initiate vessel/barge-tug and shore side response operations, and ensure smooth transition of spill response management from the vessel Master to the shore side response manager.

This Vessel Response Plan covers the vessel when operating in U.S. waters and international waters. Consistent with the regulatory requirements the vessel will have its own version of the Integrated VRP that contains applicable information and shall consist of:

1. Core Plan containing Sections 1, 2, 3 & 4 as a minimum
2. Geographic Specific Information of the Captain of the Port (COTP) zone data (Appendix A)
3. Emergency Procedures (Appendix C)

All personnel shall familiarize themselves with the contents of this Integrated VRP/SOPEP. It is a working document and will be updated and expanded regularly to meet the changing needs and requirements.

#### 1.1 GEOGRAPHIC AREAS COVERED BY THIS PLAN

Please refer to *Appendix* for the COTP zones covered by this Plan.

## 1.2 HOW TO USE THIS VESSEL RESPONSE PLAN

This plan consists of three elements:

1. **CORE PLAN** In eight sections, the Plan provides company policy for shipboard oil spill prevention, doctrine and explanation of how to use the emergency procedures.

2. **APPENDIX A Geographic Specific Information (by USCG COTP Zones)**

Identifies geographic-specific data to assist in proper notification and activation of spill clean-up resources.

3. **APPENDIX C Emergency Procedures**

Provides checklists and emergency procedures for vessel personnel in response to potential or actual oil discharges. When any shipboard incident or casualty occurs that has the potential to spill oil, the vessel crew shall immediately:

- Open to Appendix C of this plan and consult the applicable emergency procedures checklists.
- Follow notification procedures listed in Section 2 of this plan for the vessel.

Note: The emergency actions identified in these checklists shall in no way be construed to supersede or change the normal authorities or assignments of the vessel Master or his crew

## 1.3 LIST OF DOCUMENTS REFERENCED IN THIS PLAN

- US Oil Pollution Act of 1990 (OPA 1990) amendments to the Federal Water

Pollution Act (FWPCA), USA

- USCG 33 CFR Part 150, et al., Response Plans; Final Rules
- Oil Companies International Marine Forum (OCIMF), United Kingdom

Ship-to-Ship Transfer Guide, Petroleum

- U.S. Code of Federal Regulations 29 CFR; 33 CFR; 46 CFR
- IMO Marine Pollution act 1973/1978 (MARPOL 73/78)
- International Chamber of Shipping (ICS) & Oil Companies International Marine Forum (OCIMF), United Kingdom
- Peril at Sea and Salvage: A Guide for Masters
- Prevention of Oil Spillages Through Cargo Pumphoom Sea Valves
- Clean Sea Guide for Oil Tankers

## 1.5 DEFINITIONS

For the purpose of this Plan, the following terms, as defined in 33 CFR 155.110, apply:

**ADVERSE WEATHER** means the weather conditions that should be considered when identifying response systems and equipment in a Response Plan for the applicable operating environment Factors to consider include significant wave height, ice, temperature, weather-related visibility, and currents within the Captain of the Port (COTP) Zone in which the systems or equipment are intended to function.

**BULK** means any volume of oil carried in an integral tank of the vessel and oil transferred to or from a marine portable tank or independent tank while on board a vessel.

**CAPTAIN OF THE PORT (COTP) ZONE** means a zone specified in 33 CFR part 3 and, for coastal ports, the seaward extension of that zone to the outer boundary of the exclusive economic zone Specific boundaries are delineated in the applicable Area Contingency Plans.

**CARGO** means oil that is transported to and off loaded at a destination by a vessel. It does not include:

- 1) Oil carried in integral tanks, marine portable tanks, or independent tanks for use by machinery helicopters and boats carried aboard the vessel or for use by helicopters that are directly supporting the vessels primary operations; or
- 2) Oil transferred between a towing vessel and a vessel in its tow to operate installed machinery.

**DEDICATED RESPONSE VESSEL** means a vessel whose service is limited exclusively to oil and hazardous substance spill response-related activities, including Spill recovery and transport, response-related escorting, deployment of spill response equipment, supplies, and personnel and spill response related training, testing, drills, and research.

**EXCLUSIVE ECONOMIC ZONE** means the zone contiguous to the territorial sea of the United States extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

**GREAT LAKES** means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

**HIGHER VOLUME PORT AREA** means areas include any water area within 50 nautical miles seaward of the entrance(s) to the specified port:

- 1) Boston, MA.
- 2) New York, NY
- 3) Delaware Bay and River to Philadelphia, PA

- 4) St Croix, VI
- 5) Pascagoula, MS
- 6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA Note Vessel defined for or off-loading at the Louisiana Offshore OH Port are not considered to be operating this higher volume port area
- 7) Lake Charles, LA
- 8) Sabine-Neches River, TX
- 9) Galveston Bay and Houston Ship Channel TX
- 10) Corpus Christi, TX
- 11) Los Angeles/Long Beach Harbor, CA
- 12) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch, CA
- 13) Straits of Juan De Fuca and Puget Sound, WA
- 14) Prince William Sound, AK

**INLAND AREA** means the area shoreward of the boundary lines defined in 46 CFR Part 7, except that in the Gulf of Mexico, it means the area

shoreward of the lines of demarcation (COLREG

Lines) as defined in Subsection 80.740 - 80.850 of 33 CFR Chapter 1 The inland area does not include the Great Lakes or rivers and canals.

**MAXIMUM EXTENT PRACTICABLE** means the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the criteria in this subpart or in a specific plan approved by the Coast Guard. Document Title: INTEGRATED VESSEL RESPONSE PLAN / SOPEP Issue: 04/04/2008 Rev: 0 Document Section: 1 – GENERAL INFORMATION AND INTRODUCTION Page: 8

**MAXIMUM MOST PROBABLE DISCHARGE** means a discharge of up to:

- 1) 2,500 barrels of oil for vessels with an oil cargo capacity equal to or greater than 25,000 barrels; or
- 2) 10% of the vessels oil cargo capacity for vessels with a capacity of less than 25,000 barrels.

**NEARSHORE AREA** means the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except that in the Gulf of Mexico it means the area extending seaward 12 miles SubSection 80.740-80.850 of 33 CFR Chapter I.

**NON-PERSISTENT OR GROUP I OIL** means a petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

- 1) At least 50% of which by volume, distill at a temperature of 340 degrees C (645°F)
- 2) At least 95% of which by volume, distill at temperature of 370 degrees C (700°F)

**NON-PETROLEUM OIL** means oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

**OCEAN** means the open ocean, offshore area, and nearshore area as defined in this document.

**OFFSHORE AREA** means the area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

**OIL SPILL REMOVAL ORGANIZATION** means an entity that provides response resources.

**ON-SCENE COORDINATOR OR OSC** means the Federal official predesigned by the Coast Guard or Environmental Protection Agency to coordinate and direct Federal removal efforts at the scene of an oil or hazardous substance discharge as prescribed in the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan) as published in 40 CFR part 300.

**OPEN OCEAN** means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

**OPERATING IN COMPLIANCE WITH THE PLAN** means operating in compliance with the provisions of this subpart including, ensuring the availability of the response resources by contract or other approved means and conducting the necessary training and drills.

**OPERATOR OR VESSEL OPERATOR** means any person, including and Owner or demise charterer, responsible for the operation of a vessel. The Operator of a towing vessel is not, per se, considered the Operator of a vessel being towed.

**OWNER OR VESSEL OWNER** means any person holding legal or equitable title to a vessel; provided, however, that a person holding legal or equitable title to a vessel solely as security is not the Owner. In a case where a Certificate of Documentation has been issued, the Owner is the person or persons whose name or names appear on the vessel's Certificate of Documentation provided. however. that where a Certificate of Documentation has been issued in the name of a president or secretary of an incorporated company under 46 U.S.C. 15, such incorporated company is the Owner.

**PERSISTENT OIL** means a petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this document, persistent oils are further classified based on specific gravity as follows:

- 1) Group II-specific gravity less than .85.
- 2) Group III-specific gravity between .85 and less than .95.
- 3) Group IV-specific gravity .95 to and including 1.0.
- 4) Group V-specific gravity greater than 1.0.

**QUALIFIED INDIVIDUAL AND ALTERNATE QUALIFIED INDIVIDUAL** means a shore-based representative of a vessel owner or operator who meets the requirements of 33 CFR 155.1026, as follows:

- 1) The response plan must identify a Qualified Individual and at least one alternate who meets the requirements of this section.
- 2) The qualified individual and alternate must:
  - a. Speak fluent English
  - b. Except as set out in paragraph (c) of this section, be located in the United States.
  - c. Be available on a 24-hour basis;
  - d. Be familiar with the implementation of the vessel response plan; and
  - e. Be trained in the responsibilities of the qualified individual under the response plan. Document Title:
- 3) For Canadian flag vessels while operating on the Great Lakes or the Strait of Juan de Fuca and Puget Sound, WA, the qualified individual may be located in Canada if he or she meets all other requirements in paragraph (b) of this section.

4) The owner or operator shall provide each qualified individual and alternate qualified individual and alternate qualified individual identified in the plan with a document designating them as a qualified individual and specifying their full authority to:

- a. Activate and engage in contracting with oil spill removal organization (s);
- b. Act as a liaison with the predesignated Federal On-Scene Coordinator (OSC); and
- c. Obligate funds required to carry out response activities.

5) The owner or operator of a vessel may designate an organization to fulfill the role of the Qualified Individual and alternate Qualified Individual. The organization must then identify a qualified individual who meet the requirements of this section. The vessel owner or operator is required to list in the response plan the organization, the person identified as the qualified individual, the person or persons identified as the alternate qualified individual(s).

6) The qualified individual is not responsible for:

- a. The adequacy of response plans prepared by the owner or operator; or
- b. Contracting or obligating funds for response resources beyond the full authority contained in their designation from the owner or operator of the vessel.

7) The liability of a qualified individual is considered to be in accordance with the provisions of 33 USC 1321 (c)(4).

**RESPONSE AREA** means the area designated by the Federal On-Scene Coordinator in which spill response activities are occurring.

**RESPONSE RESOURCES** means the personnel, equipment, supplies, and other capability necessary to perform the response activities identified in a response plan.

**RIVERS AND CANALS** means bodies of water confined within the inland area that have a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

**SPILL MANAGEMENT TEAM** means the personnel identified to staff the organizational structure identified in a response plan to manage response Plan implementation.

**SUBSTANTIAL THREAT OF SUCH A DISCHARGE** means any incident involving a vessel that may create a significant risk of discharge of fuel or cargo oil. Such incidents include but are not limited to groundings, strandings, collisions, hull damage, fire, explosion, loss of propulsion, flooding, on-deck spills, or other similar occurrences

**TANKER** means a self-propelled tank vessel constructed or adapted primarily to carry oil or hazardous material in bulk in the cargo spaces.

**VESSELS CARRYING OIL AS A PRIMARY**

**CARGO** means all vessels except dedicated response vessels carrying oil in bulk as cargo or cargo residue that have a Certificate of Inspection issued under 46 CFR SubChapter D, Certificate of Compliance, or Tank Vessel Examination Letter.

**VESSELS CARRYING OIL AS A SECONDARY CARGO** means all vessels carrying bulk oil cargo that have a Certificate of Inspection issued under 46 CFR SubChapter H (70.05-30), or 46 CFR SubChapter I (90.05-35), an International Oil Pollution Prevention (IOPP) or Noxious Liquid Substance (NLS) certificate required by 33 CFR 151.33 or 151.35, a dedicated response vessel operating outside a response area, or any uninspected vessel that carries bulk oil cargo.

**VESSEL OF OPPORTUNITY** means a vessel engaged in spill response activities that is normally and substantially involved in activities other than spill response, and not normally involved in the carriage of oil in bulk as primary cargo .

**WORST CASE DISCHARGE** means a discharge in adverse weather conditions of a vessel's entire oil cargo.

#### **1.6 GLOSSARY OF FEDERAL AND STATE TERMS**

APHIS Animal and Plant Health Inspection Service  
ATSDR Agency for Toxic Substances and Disease Registry  
CDC Center for Disease Control  
Customs U.S. Customs Service  
DHHS Department of Health and Human Services  
DOC Department of Commerce  
DOD Department of Defense  
DOE Department of Energy DOHS Department of Homeland Security  
DOI Department of Interior  
DOJ Department of Justice  
DOL Department of Labor  
DOS Department of State  
DOT Department of Transportation  
EPA Environmental Protection Agency  
FDA Food and Drug Administration  
FEMA Federal Emergency Management Agency  
FWS Fish and Wildlife Service  
HUD Department of Housing and Urban Development  
INS Immigration and Naturalization Service  
MARAD Maritime Administration  
MMS Minerals Management Service  
NMFS National Marine Fisheries Service  
NOAA National Oceanic and Atmospheric Administration  
OSHA Occupational Safety and Health Administration  
PHS Public Health Service  
Treasury Department of Treasury  
USA United States Army  
USACOE United States Army Corps of Engineers  
USAF United States Air Force  
USCG United States Coast Guard  
USDA United States Department of Agriculture  
USFS United States Forest Service  
USFWS United States Fish and Wildlife Service  
USFS United States Forest Service  
USFWS United States Fish and Wildlife Service  
USGS United States Geological Survey  
USMC United States Marine Corps  
USN United States Navy  
USPHS United States Public Health

#### **1.7 GENERAL RESPONSE TERMS (USA)**

ACP Area Contingency Plan  
AIRSTA United States Coast Guard Air Station  
AIS Automated Information System  
AOR Area of Responsibility  
CAMEO Computer Aided Management of Emergency Operations  
CCTV Closed Circuit TV  
CERCLA Comprehensive Environmental Response Compensation  
And Liability Act of 1980  
CHEMTREC Chemical Emergency Transportation Center  
CHLOREP Chlorine Emergency Plan  
CHRIS Chemical Hazards Response Information Center  
COFR Certificate of Financial Responsibility  
COTP Captain of the Port  
CSO Company Security Office  
CSP Company Security Plan  
CWA Clean Water Act DIC Deputy Incident Commander  
DOSC Deputy On-Scene Coordinator  
ERC Emergency Response Coordinator, U.S. Public Health Service  
ERT Environmental Response Team

FOG Field Operations Guide  
FWPCA Federal Water Pollution Control Act  
GRP Geographic Response Plan  
GRU United States Coast Guard Group  
GSA Geographic Specific Appendix (by COTP Zone)  
HACS Hazard Assessment Computer System  
HAZMAT Hazardous Materials  
HAZWOPER Hazardous Waste Operations  
IAP Incident Action Plan  
IC Incident Commander  
ICS Incident Command System  
JIC Joint Information Center  
JRC Joint Response Center  
MTAA Maritime Transportation Anti-Terrorism Act of 2002  
LCP Local Contingency Plan  
MIO Marine Inspection Office  
MODU Mobil Offshore Drill Unit  
MRL Minimum Response Levels  
MSIS Marine Safety Information System  
MSC (IMO) Maritime Security Committee of IMO  
MSD United States Coast Guard Marine Safety Detachment  
MSO United States Coast Guard Marine Safety Office  
MSU United States Coast Guard Marine Safety Unit  
NAVSUPSALV United States Navy Supervisor of Salvage  
NCP National Contingency Plan (40 CFR 300)  
NIIMS National Interagency Incident Management System  
NIOSH National Institute for Occupational Safety and Health  
NRC United States Coast Guard National Response Center  
NRDA Natural Resource Damage Assessment  
NRT National Response Team Document Title: INTEGRATED VESSEL RESPONSE PLAN / SOPEP Issue: 04/04/2008  
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#### 1.7 GENERAL RESPONSE TERMS (USA) (cont'd)

NSF United States Coast Guard National Strike Force  
GST USCG Gulf Strike Team - Mobile, Alabama  
PST USCG Pacific Strike Team - Novato, California  
AST USCG Atlantic Strike Team - Ft. Dix, New Jersey  
NSP National Security Plan  
NVIC Navigation & Vessel Inspection Circular  
OPA 1990 Oil Pollution Act of 1990  
ORB Oil Record Book  
OSC On-Scene Coordinator  
OSC/RPM OSC/Remedial Project Manager, position held by assigned Emergency Response Coordinator when operating under SubSection 300.180 (a) of the NCP (40 CFR 300)  
OSPR Oil Spill Prevention & Response (California DFG)  
OSRO Oil Spill Response Organization  
PIAT United States Coast Guard Public Information Assist Team  
PIO Public Information Officer  
POLREP United States Coast Guard Pollution Report Message  
PSC Port Security Committee  
PSP Point Security Plan QI Qualified Individual  
R&D Center United States Coast Guard Research and Development Center  
RFD Reference Dose  
RCP Regional Contingency Plan  
RCRA Resource Conservation and Recovery Act  
RO Response Organization  
RP Responsible Party  
RRC Regional Response Center  
RRT Regional Response Team  
RSP Regional Security Plan  
SAC Support Agency Coordinator, position held by assigned Emergency response Coordinator when operating under SubSection 300.180(a) of the NCP (40 CFR 300)  
SAR Search and Rescue  
SAR STA United States Coast Guard Search & Rescue Small Boat Station  
SITREP Situation Report Message

SMC Search and Rescue Mission Coordinator SMT Spill Management Team  
 SONS Spill of National Significance  
 SOP Standard Operating Procedure or Practices  
 SUPSALV Supervisor of Salvage (U.S. Navy)  
 SOSC State On-Scene Coordinator  
 SRG State Response Group  
 SSC Scientific Support Coordinator  
 SSO Ship Security Officer  
 SSP Ship Security Plan  
 TAT Technical Assistance Team  
 TEAP Transportation Emergency Action Plan  
 UC Unified Command  
 VRP Vessel Response Plan VSP Vessel Security Plan  
 VTS Vessel Traffic Service

**RECORD OF REVIEW**

This plan was issued in its original format in June 1 2011. All changes thereto are as indicated in the table below.

This plan will be reviewed annually as per procedures in Section 8 (Plan Review and Update Procedures). Rev. No.	Sections	Issue Date	Brief Details	Entered By:
0	All	06/01/2011	New Issue – R/V UKPIK, R/V ANNIKA MARIE	MF

Document Title: INTEGRATED VESSEL RESPONSE PLAN / SOPEP Issue: 06/01/2011  
 Rev: 0  
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**SECTION 2 NOTIFICATION PROCEDURES Section Page**

- 2.1 WHEN TO REPORT, SUMMARY FLOWCHART
- 2.2 NOTIFICATION CHECKLISTS
- 2.3 DIAGRAM OF NOTIFICATIONS
- 2.4 NATIONAL & LOCAL COORDINATOR
- 2.5 COMMUNICATION METHODS
- 2.6 INFORMATION FOR INITIAL, FOLLOW-UP, AND VOYAGE NOTIFICATION
- 2.7 NOTIFICATION FOR SEAWORTHINESS CALCULATION ASSISTANCE
- 2.8 REFERENCE A
- 2.9 REFERENCE B

**2.1 WHEN TO REPORT**

**2.1.1 ACTUAL DISCHARGE**

An initial incident report to the nearest coastal State is required whenever there is:

- a discharge of oil above the permitted level for whatever reason, including those for the purpose of securing the safety of a ship or saving life at sea; or

- a discharge during the operation of the ship a discharge of oil in excess of the quantity or instantaneous rate permitted under the present Convention or applicable marine pollution regulations.

### 2.1.2 PROBABLE DISCHARGE

Although an actual discharge may not have occurred, an initial incident report is required if there is the probability of a discharge. In judging whether there is such a probability, and thus, whether a report must be made, the following factors should be taken into account:

- the nature of damage sustained by the ship;
- failure or breakdown of machinery or equipment which may adversely affect the ability of the ship to maneuver etc.;
- the location of the ship and its proximity to land or other navigational hazards;
- present weather, tide, current and sea state;
- expected weather conditions;
- traffic density;
- morale, health and ability of the crew on board to deal with the situation.

As a general guide, the Master should make a report in cases of:

- damage, failure or breakdown which affects the safety of the ship or other shipping: examples of such situations are collision, grounding, fire, explosion, structural failure, flooding, cargo shifting;
- failure or breakdown of machinery or equipment which results in impairment of the safety of navigation: examples are breakdown of steering gear, propulsion, electrical generating system, essential shipborne navigational aids.
- Assistance, if required, must be sought from the owner/operator.

### 2.2 NOTIFICATION CHECKLIST

National Response Center (NRC-USCG)

QI will notify IMMEDIATELY on behalf of the vessel.

Telephone: +1-202-267-2675

+1-800-424-8802

Owner/Operator

(See Section 5.1 respectively for contact details)

Port Agents - (If in port) – Per voyage orders.

### QUALIFIED INDIVIDUAL CHECKLIST

1. Immediately notify USCG National Response Center (NRC) – See applicable GSA in Appendix A of this plan.
2. An immediate decision regarding spill response equipment and personnel is required. The appropriate Oil Spill Removal Organizations (OSRO) (identified in Appendix B, Pg. 4) and/or Salvage/Firefighting provider (identified in Section 5.6) must be notified and activated as required.
3. Remain in constant communication with the Federal On-Scene Coordinator (FOSC) (listed in Appendix A Foreword of this Plan) to relay information about the vessel's position, report the action initiated and coordinate initial shore-based response actions.
4. Notify other required state and other agencies, from the section of Appendix A Foreword, for the location of the vessel.
5. Notify Spill Management Team, and vessel Owner/Operator, and commence response activity. Take charge of salvage and clean-up operations until relieved by the Spill Management Team's incident Commander or Owner's representative (or the incident is concluded).

### OWNER / OPERATOR CHECKLIST

1. Notify Vessel's National Authorities
2. Notify Insurance Manager
3. Notify P&I representatives. Also notify any additional legal representative as desired.

2.3 DIAGRAM OF NOTIFICATIONS VESSEL MASTER Qualified Individual or Alternate Qualified Individual  
 US COAST GUARD National Response Center +1-800-424-8802 or +1-202-267-2675 Only if Unable to reach Qualified or Alternate Qualified Individual Vessel Owner/Operator Port Agent (if in port) contractors (App A) US COAST GUARD Federal On-Scene Coordinator (FOSC) (App A) FEDERAL EPA, state(s) and other agencies (App A) Spill Management Team (if required) (App A) Vessel Owner/Operator Vessel's National Authorities Vessel's P&I Representatives Other Insurance Representatives Cargo Owner/Charterer

### 2.4 NATIONAL AND LOCAL COORDINATION

Prompt and effective co-ordination between the vessel and coastal state or other involved parties is vital in mitigating the effects of a pollution incident or threat of a pollution incident.

It is recognized that in most countries oil spills can be tackled most effectively from shore based organizations. Usually a government agency or port authority takes charge in the co-ordination and organization of the clean-up response and recover the costs afterwards. In case of operational spills which occur in port at oil terminals or bunkering facilities the facility operators have booming or clean-up resources at hand. In every case the spiller is expected to co-operate fully and pay reasonable costs of clean-up and any damage caused, up to a specified limit as determined by the local authorities.

#### **2.4.1 ORGANIZATION AND RESPONSIBILITY FOR RESPONSE**

The response action of vessel depends on the vessel's location at the time of imminent/threat of pollution incident. If the vessel is within a coastal state boundary then it would be necessary to notify National, State and Local governments of the incident to activate a quick response. In case of high seas incidents, under the terms of International Convention relating to intervention on high seas in cases of oil pollution casualties, 1969 (The Intervention Convention) a coastal state is authorized to intervene on high seas against the wishes of the ship and cargo owners to the extent necessary to prevent, mitigate or eliminate grave and imminent danger to the coastline or related interests from pollution or threat of pollution following a marine casualty. In this context "related interest" include tourism, fishing and other marine resources and wildlife.

A number of developing nations lack both specialized resources and contingency plans and may rely on help from a variety of sources outside the country to assist with clean-up. In such cases it may be in the owner's best interest to seek an active involvement in the spill response operation. However, it should be recognized that the actual response adopted by a country to a particular incident will depend upon a number of factors such as the exact location, the type and quantity of oil involved and the owner of both the ship and the cargo.

If the ship is on charter, the charterer may have the right to assume responsibility for clean-up. This is particularly likely if the charterer is a major oil company and the spill occurs in a sensitive location. The coastal state must be contacted for authorization prior to undertaking mitigating actions.

#### **2.4.2 NATIONAL CO-ORDINATION**

Vessel to notify national authority in case of any spill within any coastal region. In case of high seas incident, depending on the predicted or estimated impact area, the closest coastal state. Additionally the Regional Co-ordination Center (RCC) must be activated. National Authority must be notified to activate the response activity.

#### **2.4.3 STATE CO-ORDINATION**

Within the national boundaries of a country the various regional states may have their own requirements or regulations. To comply with the requirements the vessel must notify the Regional State Authority.

#### **2.4.4 LOCAL PORT/HARBOR CO-ORDINATION**

All oil terminal ports or harbor authorities have local response organizations which will respond quickly to any spill or threat of spill. It is normally a requirement to inform the local harbor/port control authority. The local port may have additional VTS, fire and pollution control monitoring agency to isolate a waterway and may have contingency plan for evacuation of vessel to sea.

The specific reporting formats for each country vary and the requirements may be obtained from (but not limited to) the following Publications:

- Coast-Pilots
- Guide to Port Entry (Including National Requirements)
- Guide to Tanker Terminals
- IMO Routing Requirements
- Radio Reporting Requirements (ALRS Volumes)
- Reporting Requirements as marked on Charts.
- VTS requirements (Vessel Traffic System)
- IMO, ICS and OCIMF Publications

It is recommended that in passage-planning the various reporting format of Areas to be transmitted and local port/harbor emergency numbers be taken into account as part of contingency planning prior to each voyage or port entry. Over a period of time, depending of vessels trading pattern, list of port/state reporting requirements should be compiled and retained on board for ready reference.

#### **2.5 COMMUNICATION METHODS**

Direct voice is the primary communications method and shall be used for initial spill notification. When direct voice communication is not possible, secondary communications, such as telex or other electronic communications, shall be used. All communications shall be consistent with procedures specified in the VRP. Voice notification to the US Coast Guard National Response Center and the Qualified Individual shall fulfill the initial notification requirements.

## 2.6 INFORMATION FOR INITIAL, FOLLOW-UP, AND VOYAGE NOTIFICATION

### 2.6.1 INITIAL NOTIFICATION:

The Master makes the initial casualty report as soon as the nature of the pollution incident or casualty is known. A hard copy of the initial casualty report shall be sent via telex, fax, radio to the Qualified Individual, and Owner/Operator, as soon as possible.

The format and content of an initial incident report is given below. The format is consistent with the General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving dangerous goods, harmful substances and/or Marine Pollutants, adopted as Resolution A.851(20) by the International Maritime Organization (IMO), and USCG

The report should contain the following information:

AA (Ship) The name of the ship, call sign or ship station identity, flag, and reporting party/Master's name are to be entered in this block. BB (Date & Time of event) Enter a six (6) digit group giving the day of month (first two digits) and hours and minutes (last four digits). This information is given in UTC (Zulu) time. If other than UTC, state time zone used. CC (Position) Enter a four (4) digit group giving latitude in degrees and minutes suffixed with N (North) or S (South) and a five (5) digit group giving longitude in degrees and minutes suffixed with E (East) or W (West). DD (Position) Enter the first three (3) digits of the true bearing. State the distance in nautical miles from a clearly identified landmark. Be sure to state the name of the landmark used. (\*\*NOTE: Either CC or DD can be provided to report vessel's position.\*\*) EE (True Course) Enter true course using three (3) digits. FF (Speed in Knots) Enter the speed of ship in knots. Speed should be described in knots to the nearest tenth, meaning the number entered should be three (3) digits. For example: 09.3 knots or 13.2 knots. LL (Route Information) Enter the vessel's intended track. MM (Radio communications) State in full the names of radio stations and frequencies guarded, the ship's fax number, and satellite or cell phone number. NN (Time of next report) Provide the date and time of report to the FOSC or COTP by entering a six (6) digit group giving the time and day of month (first two digits) and hours and minutes (last four digits). Be sure to use UTC (Zulu) time. PP (Cargo on board) State the type and quantity (units) of cargo/bunkers on board. Provide brief details of any dangerous cargoes as well as harmful substances and gases that could endanger persons or the environment. QQ (Defects/Damage/Deficiencies/other Limitations) Provide brief details of defects, damage, deficiencies, or other details. RR (Description of pollution or dangerous goods lost overboard) Provide brief details of the type of pollution (oil, chemicals, etc.) or dangerous goods lost overboard. Be sure to state the chemical's technical name, the UN/IMDG number (if known), the overall impact of the oil spill, and whether or not the chemical is still leaking. The position of vessel is expressed in the same format as Parts C and D of this form. BE SURE TO INCLUDE A SEPARATE ATTACHMENT. SS (Weather & Sea conditions) Enter brief details of weather and sea conditions prevailing. Enter the direction and speed (knots) of the wind, and the direction and height of the swell (meters). TT (Ship's representative and/or owner) Give contact details of the name and particulars of the ship's representative or owner or both for provision of information. UU (Ship size and type) Provide details of the ships overall length, greatest breadth, draught, and type. Enter each of these characteristics in meters (m). XX (Additional information) ATTACH ADDITIONAL SHEETS, IF NECESSARY. Provide other information – including, as appropriate, brief details of incident and reporting party, other ships involved either in the incident, assistance, or salvage. Discuss actions to correct/mitigate the situation, give the number of crewmembers, and details of any injuries or fatalities. Give contact details of the P&I Club and local correspondent. Also, provide any miscellaneous information not mentioned within the reporting form. Spill location information is required to trigger National Response Center agency notifications.

### Vessel Spill Incident Fax Reporting Form

ACTUAL INCIDENT: Yes \_\_\_ No \_\_\_ DRILL: Yes \_\_\_ No \_\_\_

Initial Incident Notification Report to:

USCG National Response Center : Fax: 1-202-267-2165  
Follow up with Voice confirmation of fax receipt within 15 minutes  
Voice: 1-800-424-8802 or 1-202-267-2675 Telex: 892427

AA (Tug/Barge name, IMO #, call sign, flag, reporting party/Master's name)  
UTC (Zulu)  
BB (date & time of event)  
D  
D

H  
H  
M  
M

CC (position, latitude, longitude)

DD (bearing, distance from landmark) Distance nm from

EE (true course)

FF (speed in knots)

LL (intended track)

MM (radio station(s) and frequencies guarded, ship fax number, satellite or cell phone number)

NN (date and time of next report to FOSC or COTP)

UTC (Zulu)

PP (type and quantity (units) of cargo/bunkers on board)

QQ (brief details of defects/damages)

RR (Include attachment of brief details of pollution, including estimated amount of loss)

Estimated quantity lost:

Technical name:

UN/IMDG number, if known:

Still leaking Yes or No

SS (brief details of weather and sea conditions)

WIND direction

SWELL direction height

TT (contact details of ship's owner/operator/agent)

UU (ship size and type)

Length:

(m) Breadth:

(m) Draught:

(m) Type:

XX (additional information—ATTACH ADDITIONAL SHEETS, IF NECESSARY)

Brief details of incident and reporting party:

Need for outside assistance:

Actions taken to correct/mitigate the situation:

Number of crew, injuries, or fatalities:

Crew

Injuries

Fatalities

Details of P&I Club and local correspondent:

Spill Location: City \_\_\_\_\_

State \_\_\_\_\_ County (if known) \_\_\_\_\_

Note: The alphabetical reference letters in the following format are from "General principles for ship reporting systems and ship reporting requirements, including guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants" adopted by the International Maritime Organization by resolution A851

#### USCG/IMO SAMPLE MESSAGE FORMAT FOR FOLLOW-UP NOTIFICATION

DATE/TIME (GMT): (Of this Message)

TO:

FROM: (ship name, call sign, IMO number, flag, MMSI No; Inmarsat No.; Master's name)

SUBJECT: Follow-Up Notification Report No. \_\_\_\_

AAA Additional Details on the Type(s) of Cargo On-Board

BBB Additional Details on the Condition of the Vessel

CCC Additional Details on the Ability to Transfer Cargo, Ballast, Fuel

DDD Additional Details on the Quantity, Extent and Movement of the Pollution and Whether the Discharge is Continuing.

EEE Any Changes in the On-Scene Weather or Sea Conditions; and

FFF Actions being taken with Regard to the Discharge and the Movement of the Ship.

GGG Any Change in the Vessel's Position (LAT/LONG).

HHH Time of Next Follow-Up Report, or if this Is Final Report.

#### 2.6.2 FOLLOW-UP NOTIFICATION:

Follow-up reports shall be transmitted within the time specified in the Initial Report. Refer to Appendix C of this plan for the message format. The follow up report must include as a minimum:

- Vessel position and present condition of the Barge
- Rate of release and spread of oil

- Weather conditions
- Clean-up activities initiated
- Any other information

**NOTIFICATION IN THE EVENT OF A CASUALTY:**

The Initial Incident Report is to be transmitted immediately as follows:

Notifications Made To: Notifications Made By:

- US Coast Guard; National Response Center - Notify IMMEDIATELY (VESSEL MASTER)
- Qualified Individual - Notify IMMEDIATELY (MASTER)
- Vessel Owner / Operator (TUG'S MASTER & QI)
- Contracted clean-up resources - Notify IMMEDIATELY (QI)
- Agents for Owner / Operator (QI)
- Any local state requirements as per Appendix A of this plan. (QI)

The initial report must contain an estimate of spilt volume, to determine response activation. Refer to Appendix C for specific notification checklists.

**2.7 NOTIFICATION FOR SEAWORTHINESS CALCULATION ASSISTANCE**

**2.8 REFERENCE A**

USCG 33 CFR 153

<http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>

Subpart B - Notice of the Discharge of Oil or a Hazardous Substance

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153.203 Procedure for the notice of discharge

153.205 Fines

**2.9 REFERENCE B**

MARPOL 73/78 requirements

PROTOCOL I

PROVISIONS CONCERNING REPORTS ON INCIDENTS INVOLVING HARMFUL SUBSTANCES (in accordance with Article 8 of the Convention)

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Whenever an oil spill occurs, it is the duty of the person finding the spill to immediately inform the Master or Responsible Officer. That person should call out the vessel's Pollution Prevention Team (See 3.7). Remember that an oil spill may create a fire or explosion hazard, requiring safety precautions to be observed.

In order to prevent the discharge of oil into water during routine operations, Vessel personnel shall take all possible precautions consistent with the company procedures on spill prevention, and the guidance in Appendix C of this plan.

In the event of an incident, the Master shall take all possible actions to prevent or minimize further discharge of oil and initiate clean-up response actions, provided that personnel and vessel safety are not compromised. The vessel personnel shall make every effort to secure the source of the discharge and to prevent the overboard discharge of oil. Refer to Appendix B of this plan for the definition of spill volumes for Maximum Most Probable Discharge and Worst Case Discharge for the vessel(s) covered under this plan.

### **3.1 OPERATIONAL SPILLS OF OIL**

The most likely operational spill will result from:

- Pipeline leakages, including transfer hoses
- Cargo tank or bunker tank overflows
- Hull leakages

#### **3.1.1 Pipeline Leakage During Discharging or Loading of Oil Cargoes, or During Bunkering**

It is important for the master and/or response team members to review and be fully familiarized with the cargo data sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

Measures to be implemented immediately:

- Stop all cargo and bunkering operations, and close manifold valves
- Sound the emergency alarm, and initiate emergency response procedures
- Inform terminal/ loading master/ bunkering personnel about the incident

Further measures:

- Consider whether to stop air intake into accommodation and non-essential air intake to engine room.
- Consider mitigating activities such as decontamination of personnel who have been exposed.
- Locate source of leakage, and begin clean-up procedures
- Drain affected section of pipeline into an empty or slack tank (e.g. the slop tank or another cargo tank)
- Prepare portable pumps where it is possible to transfer spilled liquid into a slack or empty tank
- If the source of the leakage is located in the pumproom at the sea valves the necessary measures must be taken to relieve the pressure from the relevant section of the pipeline.

If the spilled liquid is contained on board and can be handled by the Pollution Prevention Team then:

- Use sorbents and permissible solvents to clean up liquid spilled on board.
- Ensure that any residues collected, and any contaminated absorbent materials used in the clean up operation are stored carefully prior to disposal.

After dealing with the cause of the spill it may be necessary to obtain permission from local authorities or the terminal (or both) to continue normal operations.

#### **3.1.2 Tank Overflow During Loading Or Bunkering**

It is important for the master and/or response team members to review and be fully familiarized with the cargo data sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

Measures to be implemented immediately:

- Stop all cargo and bunkering operations, and close manifold valves
- Sound the emergency alarm, and initiate emergency response procedures
- Inform terminal/ loading master/ bunkering personnel about the incident

Further measures:

- Consider whether to stop air intake into accommodation and non-essential air intake to engine-room.
- Consider mitigating activities such as decontamination of personnel who have been exposed.
- Reduce the tank level by dropping cargo or bunkers into an empty or slack tank
- Prepare pumps for transfer of cargo/bunkers to shore if necessary
- Begin clean up procedures
- Prepare portable pumps if it is possible to transfer the spilled liquid into a slack or empty tank.

If the spilled liquid is contained on board and can be handled by the Pollution Prevention Team then:

- Use sorbents and permissible solvents to clean up the liquid spilled on board.
- Ensure that any residues collected, and any contaminated absorbent materials used in the clean up operation are stored carefully prior to disposal.

After dealing with the cause of the spill it may be necessary to obtain permission from local authorities or the terminal (or both) to continue normal operations.

#### **3.1.3 Hull Leakage**

It is important for the master and/or response team members to review and be fully familiarized with the cargo data sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines. If oil is noticed on the water near the vessel during cargo or bunkering operations and cannot be accounted for, the possibility of hull leakage should be suspected.

Measures to be implemented immediately:

- Stop all cargo and bunkering operations, and close manifold valves, tank valves and pipeline master valves
- Sound the emergency alarm, and initiate emergency response procedures
- Inform terminal/ loading master/ bunkering personnel about the incident.

Further measures:

- Use the Pollution Prevention Team in an attempt to locate the source of leakage
- Consider mitigating activities such as decontamination of personnel who have been exposed.
- Consider whether to stop air intake into accommodation and non-essential air intake to engine-room
- If the source of the leak is not readily identified on deck or above the waterline, consider the use of a diver to assist in locating the leak
- When appropriate, reduce the inert gas pressure to zero.

When the source of leakage is identified:

- Reduce the head of bunker oil by dropping or pumping liquid into an empty or slack tank
- Consider the possibility of pumping water into the leaking tank to create a water cushion to prevent further loss of oil that is less dense than water.
- If the leakage is located below the waterline, call in divers for further investigation.

If it is not possible to identify the actual tank:

- The level of liquid in the tanks in the vicinity of the suspected area should be reduced. Remember to consider the effect on hull stress and stability of the vessel.

After dealing with the cause of the spill it may be necessary to obtain permission from local authorities or the terminal (or both) to continue normal operations.

It is possible that failure of machinery, such as the oily water separating equipment or the oil discharge monitor, can cause an operational discharge while at sea in excess of that permitted. In such an incident the discharge should be stopped immediately and the correct report made. It is generally acknowledged that no clean up is possible by the ship, but the shore authorities can often respond more effectively to a spill in its early stages.

Procedures for the crew to mitigate or prevent any discharge, or substantial threat of such discharge, of oil resulting from shipboard Operational Spills checklist in Appendix C of this plan. Responsibilities are listed by job title.

The pollution prevention team shall mobilize the onboard oil spill equipment prior to any oil transfer and place it in close proximity to the planned operation. Oil sorbent boom shall be placed along the railing of the side at which bunker operation shall take place.

### 3.2 SPILLS RESULTING FROM CASUALTIES

In the event of a casualty the master's first priority is to ensure the safety of the ship's personnel and to initiate action to prevent the incident from getting worse.

If the casualty involves grounding, breaching of the outer hull, or other structural damage for which calculations of stability and damaged longitudinal strength are beyond the ship's resources, assistance must be sought from shore. It may be necessary to transfer all or part of the cargo to another ship. The ICS/OCIMF publication "Ship to Ship Transfer Guide (Petroleum)" describes procedures to be followed in such a case. For liquefied gas carriers it is appropriate to refer to the sister publication "Ship to Ship Transfer Guide (Liquefied Gas)". A copy is held on board, and the master should encourage officers to familiarize themselves with the contents. When arranging a rendezvous, the master should ensure that the lightering vessel would also follow the same procedures.

The following casualty situations are dealt with:

- Grounding
- Stranding/Wrecked
- Fire/Explosion
- Collision (with a fixed or a moving object)
- Hull Failure
- Excessive List
- Containment System Failure
- Submerged or Foundered
- Hazardous Vapor Release

#### 3.2.1 Grounding

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If the ship runs aground, the following steps should be taken immediately:

- Sound the emergency alarm, muster the crew, and initiate emergency response procedures
- Eliminate all avoidable sources of ignition and ban all smoking on board

- Consider whether to stop air intake to accommodation and non-essential air intake to the engine-room
- In the case of a noxious liquid substance, consider what protection from vapor or liquid contact is necessary for the response team and for other crewmembers.
- Reduce the inert gas pressure to zero

**Further action**

- Carry out a visual inspection of the ship to determine the severity of the situation
- Take soundings around the ship to determine the nature and gradient of the seabed
- Check difference in the tidal ranges at the grounding site
- Evaluate tidal current in the grounding area
- Take soundings of all cargo, ballast and bunker tanks and check all other compartments adjacent to the hull: ullage plugs should not be opened indiscriminately as loss of buoyancy could result
- Compare present tank soundings against departure soundings
- Evaluate the probability of additional release of oil.

Further information on the action to be taken when a ship is aground is contained in the ICS/OCIMF publication "Peril at Sea and Salvage - A Guide for Masters".

Having assessed the damage that the vessel has sustained, and taking into account the effects of hull stress and stability, the master should decide whether or not any action can be taken to avoid further spillage, such as:

- Transfer of cargo and bunkers internally. If the damage is limited, for example to one or two tanks, consideration should be given to transfer of liquid from damaged to intact tanks.
- Isolate all cargo and bunker tanks to reduce further loss due to hydrostatic pressure during tidal changes.
- Review existing and forecast weather conditions, and whether they will adversely affect the ship.
- Evaluate the possibility of transferring cargo to barges or other ships, and request such assistance accordingly.
- Trimming or lightening the vessel sufficiently to avoid damage to intact tanks, thereby avoiding additional pollution from spillage of oil or noxious liquid substances.

If the risk of additional damage to the ship by attempting to refloat it by its own means is assessed to be greater than by remaining aground until assistance has been obtained, the master should try to prevent the ship from moving from its present position by;

- Using anchors
- Taking in ballast in empty tanks (if possible)
- Reducing longitudinal stress on the hull by transferring cargo internally. Attention should be given to hull stress and damage stability information, referring to the classification society if necessary. Care must be taken over the compatibility of noxious liquid substances with tank type, material of construction and tank coating.

### 3.2.2 Stranding/Wrecked

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If the ship is stranded/wrecked, the following steps should be taken immediately:

- Sound the emergency alarm, muster the crew, and initiate emergency response procedures
- Eliminate all avoidable sources of ignition and ban all smoking on board
- Consider whether to stop air intake to accommodation and non-essential air intake to the engine-room
- In the case of a noxious liquid substance, consider what protection from vapour or liquid contact is necessary for the response team and for other crewmembers.
- Reduce the inert gas pressure to zero

**Further action**

- Carry out a visual inspection of the ship to determine the severity of the situation
- Take soundings around the ship to determine the nature and gradient of the seabed
- Check difference in the tidal ranges at the stranding/wrecked site
- Evaluate tidal current in the stranding/wrecked area
- Take soundings of all cargo, ballast and bunker tanks and check all other compartments adjacent to the hull: ullage plugs should not be opened indiscriminately as loss of buoyancy could result
- Compare present tank soundings against departure soundings
- Evaluate the probability of additional release of oil.

Further information on the action to be taken when a ship is stranded/wrecked is contained in the ICS/OCIMF publication "Peril at Sea and Salvage - A Guide for Masters".

Having assessed the damage that the vessel has sustained, and taking into account the effects of hull stress and stability, the master should decide whether or not any action can be taken to avoid further spillage, such as:

- Transfer of cargo and bunkers internally. If the damage is limited, for example to one or two tanks, consideration should be given to transfer of liquid from damaged to intact tanks.
- Isolate all cargo and bunker tanks to reduce further loss due to hydrostatic pressure during tidal changes.
- Review existing and forecast weather conditions, and whether they will adversely affect the ship.
- Evaluate the possibility of transferring cargo to barges or other ships, and request such assistance accordingly.
- Trimming or lightening the vessel sufficiently to avoid damage to intact tanks, thereby avoiding additional pollution from spillage of oil or noxious liquid substances.

If the risk of additional damage to the ship by attempting to refloat it by its own means is assessed to be greater than by remaining stranded/wrecked until assistance has been obtained, the master should try to prevent the ship from moving from its present position by;

- Using anchors
- Taking in ballast in empty tanks (if possible)
- Reducing longitudinal stress on the hull by transferring cargo internally. Attention should be given to hull stress and damage stability information, referring to the classification society if necessary. Care must be taken over the compatibility of noxious liquid substances with tank type, material of construction and tank coating.

### 3.2.3 Fire/Explosion

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If an explosion or a fire occurs on board:

- Sound the emergency alarm, deploy the ship's fire emergency team(s) and follow the emergency procedures
- Determine the extent of the damage, and decide what damage control measures can be taken
- Determine whether there are casualties
- Request assistance as deemed necessary

### 3.2.4 Collision (with a fixed or moving object)

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If a collision occurs:

- Sound the emergency alarm and initiate emergency procedures.
- Determine whether there are casualties.

The master should assess the situation for pollution purposes as follows, taking action where appropriate:

- Decide whether separation of the vessels may cause or increase the spillage of oil.
- If any cargo or bunker tanks are penetrated, reduce the risk of further spillage by isolating penetrated tanks or transferring liquid to slack or empty tanks.

Having assessed the damage and dealt with imminent danger, consideration of further action for repair or cargo transshipment should be done in conjunction with appropriate authorities, in order to facilitate pollution control.

### 3.2.5 Hull Failure

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If the ship suffers severe structural hull failure:

- Sound the emergency alarm and muster the crew
- Reduce speed or stop to minimize stress on the hull
- Assess the immediate danger of sinking or capsizing
- Initiate damage control measures
- Reduce the inert gas pressure to zero.

The master should then assess the situation for pollution purposes as follows:

- If immediate action is necessary to jettison cargo, inform the appropriate parties in accordance with Section 2 of this plan
- Consider whether offloading of oil that is necessary in order to maintain stability can wait until another ship or a barge is available
- If the change in stability and stress cannot be calculated on board, contact the classification society and arrange for the necessary calculations to be carried out
- Consider the forecast weather conditions and the effect they may have on the situation.

Having assessed the damage and dealt with imminent danger, consideration of further action for repair or cargo transshipment should be done in conjunction with appropriate authorities, in order to facilitate pollution control.

### 3.2.6 Excessive List

Refer to Cargo Data Sheets (located in the ship's office and/or cargo control room) for product specifics and safety guidelines.

If excessive list occurs rapidly and unexpectedly it may be due to:

- Failure of the hull plating
- Failure of an internal bulkhead between compartments
- Shift of cargo
- Flooding of a large space such as the engine room, where free surface can cause a list
- Damage through grounding or collision
- Incorrect operational procedures.

Steps to be taken immediately:

- Stop any cargo, bunkering or ballast operations in progress, and close all tank valves and pipeline master valves
  - Sound the emergency alarm and muster the crew
  - If under way, reduce speed or stop
  - Establish the reason for the list
- Further measures:
- Sound all tanks and compare soundings with departure soundings
  - If immediate action is necessary to jettison cargo, inform the appropriate parties in accordance with Section 2 of this plan
  - Consider whether offloading of oil that is necessary in order to maintain stability can wait until another ship or a barge is available
  - If possible, take corrective action to rectify the situation
- Having assessed the damage and dealt with imminent danger, consideration of further action for repair or cargo transshipment should be done in conjunction with appropriate authorities, in order to facilitate pollution control.

### 3.2.7 Containment System Failure

Refer to Cargo Data Sheets for product specifics and safety guidelines.

If there has been an internal failure of the bunker oil or cargo containment system, other than pipeline leakage, it is likely that it will be detected by another symptom such as an excessive list, a tank overflow or external hull leakage, often preceded or accompanied by a loud or unusual noise. Advice on initial reaction in each case will be described under other sections. However, once a failure of the internal containment system has been identified, there may be additional responses that can be taken to avoid or mitigate a spill of oil.

Steps to be taken immediately:

- Stop any cargo, bunkering or ballasting operations in progress, and close all tank valves and pipeline master valves
- If under way, consider reducing speed or stopping
- If in port, consider evacuation of non-essential personnel

Further measures:

- Determine the extent of the damage, and decide what damage control measures can be taken
- Assess the possibility of pollution from leakage of oil
- If oil has spilled, inform the appropriate parties in accordance with Section 2 of this plan
- If immediate action is necessary to jettison cargo, inform the appropriate parties in accordance with Section 2 of this plan
- Consider whether offloading of oil that is necessary in order to maintain stability can wait until another ship or a barge is available
- Crew will muster at their allocated muster stations for further instructions
- Consider whether the level of liquid in the tanks associated with the system failure should be reduced. Remember to consider the effect on hull stress and stability of the vessel.

If the spilled liquid is contained on board and can be handled by the Pollution Prevention Team then:

- Use sorbents and permissible solvents to clean up the liquid spilled on board.
- Ensure that any residues collected, and any contaminated absorbent materials used in the clean up operation are stored carefully prior to disposal.

### 3.2.8 Submerged or Foundered

Refer to Cargo Data Sheets for product specifics and safety guidelines.

If the ship is wrecked to the extent that it is in imminent danger of foundering or being completely or partially submerged, safety of the lives of the crew will take priority over preventing pollution. It is likely that the event that caused the sinking will have led to some surface pollution already. However, if time allows, it may be possible to take some measures that will limit subsequent spillage.

Steps to take immediately:

- Sound the emergency alarm and initiate emergency procedures.

The following actions may be considered, if there is no risk to the safety of the crew, and time allows:

- Inform the appropriate parties in accordance with Section 2 of this plan
- Close all tank valves and pipeline master valves
- Screw down or lock shut any tank vent valves
- Close vent flaps and watertight openings in the cargo area
- Alert other ships and navigational authorities to the presence of pollutants
- Crew will muster at their allocated muster stations for further instructions

### 3.2.9 Hazardous Vapor Release

Refer to Cargo Data Sheets for product specifics and safety guidelines.

For oil tankers and cargo ships at sea, it is unlikely that a significant marine pollution hazard will be created solely by vapor release. In port the main problem with such an event is safety of the crew and nearby shore personnel in a flammable or toxic atmosphere.

Steps to take immediately:

- Sound the emergency alarm
- Stop any cargo, bunkering or ballasting operations in progress, and close all tank valves and pipeline master valves
- Eliminate possible sources of ignition
- If under way, consider altering course to create the best wind flow, or reducing speed or stopping
- If in port, consider evacuation of non-essential personnel
- If in port, alert shore and terminal personnel, and the crew of craft alongside
- Crew will muster at their allocated muster stations for further instructions

Further measures

- Establish the reason for the hazardous vapor release
- If possible, take corrective action to rectify the situation.

### 3.3 PRIORITY ACTIONS

Top priority shall in all cases of casualty be put on the safety of the persons onboard and to take actions to prevent escalation of the incident.

Immediate consideration should be given to protective measures against fire, explosions and personnel exposure to toxic vapor.

Detailed information about the damage sustained to the ship and its containment system has to be obtained. On the basis of the information the Master can decide next actions for the protection of lives, the ship, the cargo and the environment.

The Master should take into account the following when he is determining whether salvage assistance will be needed or not:

- Nearest land or hazard to navigation
- Vessel's set and drift
- Estimated time of casualty repair
- Determination of nearest capable assistance and its response time.

Detailed information about the cargo must be available and is to be referred to for further actions regarding the cargo.

In case of necessary movement of cargo within the ship careful consideration is to be given to hull strength and stability as well as to the compatibility of all material (cargo, tanks, coating, piping) in view of any transfer actions planned.

Plans/tables about the location and specification of the current cargo as well as bunkers and ballast have to be readily available.

Information about current cargo/bunker/ballast distribution and the Data Sheets for the carried cargo substances are available onboard and in the offices of the Operator.

### 3.4 MITIGATING ACTIVITIES

If safety of both the ship and the personnel has been addressed, the Master can initiate the following:

#### 3.4.1 Assessment and Monitoring Requirements

The Master proceeds with the following actions:

- Assesses the damage immediately and decides whether outside assistance is required or the situation can be dealt with by the means available on board.
- Sends an urgency or distress call, as appropriate, in case outside assistance is required. The coastal station contacts the nearest Rescue Co-ordination Centre (RCC) automatically. However, the master may also contact the RCC directly, if possible. If the vessel participates in the AMVER system, he immediately notifies it.
- Obtains the accurate position of the vessel and distance from shallow waters;
- Assess weather conditions, tide and the state of the sea; and
- Foresees the movement of the oil spill and examines whether it is likely to affect the shore.

#### 3.4.2 Personnel Protection Issues

• Protective equipment -

In the event of a casualty, the Master's first priority is to ensure the safety of personnel. For the protection of the crew members who are engaged in loading and discharging operations, the ship must have onboard all suitable protective equipment consisting of large aprons, special gloves with long sleeves, suitable footwear, coverall of chemical-resistant material, and light-fitting goggles or face shields. The protective clothing and equipment cover all skin so that no part of the body is unprotected.

Work clothes and protective equipment is kept in easily accessible places and in special lockers. Such equipment should not be kept within accommodation spaces, with the exception of new, unused equipment and equipment which has not been used since undergoing a thorough cleaning process.

Protective equipment should be used in any operation, which may entail danger to personnel.

- Threats to Health and Safety

Cargoes may be harmful if the liquid comes in contact with the skin, if their vapors are inhaled or if the liquid is swallowed. The seriousness of the effect depends on both the physical properties of the cargo and on its toxicity or irritant nature.

Absorption of a cargo, through the skin, depends on the solvent nature of the cargo. If the cargo cannot pass readily through the skin, no skin absorption hazard exists even if the liquid is a poison.

The inhalation hazard of a cargo depends primarily on its volatility. A cargo which is not volatile at normal handling temperatures may not produce sufficient vapour to be dangerous, even if the cargo is inherently poisonous.

### **3.5 LIGHTENING - TRANSFER OF BUNKER/CARGO**

If the ship has sustained extensive structural damage, it may be necessary to transfer all or part of the cargo/ bunker to another ship.

In Ship-to-Ship-transfer operations involving a specialized service ship, the Master of that ship will normally be in overall charge.

In the case of non-specialized ships the Master or other person in overall charge of the operation should be mutually agreed and clearly established by the Masters concerned prior to the start of operations.

The actual bunker/cargo transfer should be carried out in accordance with the requirements of the receiving ship.

In all cases each Master remains responsible for the safety of his own ship, its crew, cargo/ bunker and equipment and should not permit their safety to be jeopardized by the action of the other Master, his owner, regulatory officials or others.

The Ship-to-Ship-transfer operations should be coordinated with the appropriate responsible local Authority.

When selecting the area of operation the Master(s) should consider the following points

- The need to notify and obtain the agreement of any responsible authority
- The destinations of the ships concerned
- The shelter provided, particularly from sea and swell
- The sea area and depth of water, which should be sufficient for manoeuvring during mooring, unmooring and transfer operations and allow a safe anchorage if operations have to be undertaken at anchor
- The traffic density
- The weather conditions and the weather forecasts

Further, before commencing Ship-to-Ship transfer operations each ship should carry out, as far as possible, appropriate preparations like:

- Pre-mooring preparations of the ships
- Positioning of fenders if such equipment is available on board
- Mooring equipment arrangements
- Checking the communication channels between the two ships

In addition to the general principles of Ship-to-Ship operations as aforementioned the Master should take note of supplemented instructions issued by the company.

Those supplemented information is located in the ship's office as well as the office of the Operator.

### **3.6 STABILITY, STRENGTH AND HULL STRESS CONSIDERATIONS**

When performing shipboard spill prevention and mitigating measures as a result of a casualty, damage stability, strength and hull stress shall be considered prior to commencement of any transfer. Reference material is available in the Master's office and with vessel operator's head office.

The Master shall request shore-based assistance, if required. Cargo/bunker and internal transfer procedures may begin only after vessel's overall longitudinal strength, stress and stability calculations have been made for the current conditions of the vessel and all parameters are within acceptable limits. Vessel crews shall be trained and qualified to perform basic stability and stress evaluations.

Plans and programs to perform salvage, stability and hull stress assessments, including general arrangements and amidships sections plans, line tables, tank tables, load lines assignments, and light ship characteristics can also be accessed on a 24-hour basis by calling the Technical Department of the vessel operator. (Refer to Appendix B Vessel Specific Information for contact details of Damage Stability Provider if applicable. Refer to Appendix C for Damage Stability Forms.)

### **3.7 VESSEL'S POLLUTION PREVENTION TEAM: MASTER**

#### **3.7.1 General Responsibilities**

##### **Master**

Overall in charge of operation onboard. Report incident as required (Section 2 of this Plan). Remains as owner's senior representative until relieved by the Qualified Individual.

In charge of bunker operation.

Organize onboard clean-up equipment. .

If uncontrollable leakage from manifold, hoses or COW line: Stop pumps with emergency stop. Close all manifold valves.

Mobilize deckhands to the best position for keeping escaping oil from running over the vessel's sides.

Limit outflow by operating pumps/valves .

Deckhand

If oil leakage is detected, sound alert immediately by all possible means. Inform Master immediately

### 3.11 PROCEDURES FOR NON-EMERGENCY OIL TRANSFER (LIGHTERING)

The following vessel's oil transfer procedures have been adapted from the State of Washington's Chapter 317-40 WAC (Bunkering Operations).

This section establishes minimum standards for safe bunkering operations to reduce the likelihood of an oil spill by:

1. Emphasizing the importance of proper procedures, communication and monitoring before, during and after a bunkering operation;
  2. Ensuring that the duties of each person involved in a bunkering operation are clearly; and
  3. Requiring vessel owners and operators to adopt company policies that improve the safety of bunkering.
- This section applies to all bunkering operations to refuel a self-propelled covered vessel, 300 gross tons or more, and to all owners, operators, persons-in-charge, and other personnel involved in bunkering in state waters.

Definitions:

- (1) "Bunkering" - means an oil transfer operation to replenish a self-propelled covered vessel 300 gross tons or more with fuel or bunkers used to propel the vessel.
- (2) "Cargo vessel" - means a self-propelled ship in commerce, other than a tank vessel or passenger vessel, three hundred gross tons or more, including but not limited to, commercial fish processing vessels and freighters.
- (3) "Covered vessel" - means a tank vessel, cargo vessel, or passenger vessel.
- (4) "Innage" - means the difference from the surface of the liquid to a fixed datum plate or to the tank bottom.
- (5) "Office" - means the office of marine safety.
- (6) "Oil transfer procedure" - means the document required under 33 CFR Sec. 155.720 that contains information required under 33 CFR Sec. 155.750 including bunkering procedures.
- (7) "Passenger vessel" - means a ship of three hundred or more gross tons with a fuel capacity of at least six thousand gallons carrying passengers for compensation.
- (8) "Person in charge" - means, for vessels, the person designated under 33 CFR Sec. 155.700 who meets the qualifications under 33 CFR Sec. 155.710. For facilities, it is the person designated under 33 CFR Sec. 154.700 who meets the qualifications of 33 CFR Sec. 154.710.
- (9) "Proficient in English" - means the ability to clearly speak the English language so personnel from other vessels and facilities understand and may safely complete a vessel operation.
- (10) "Training" - means instructional, materials, and procedures, including shipboard materials, practical exercises, and drills.
- (11) "Topping off" - means the receipt of bunker oil into the last ten percent of available tank capacity in any bunker tank.
- (12) "Ullage" or "outage" - means the depth of space above the free surface of the fluid to the tank top.

Compliance with federal law and regulations.

All bunkering and personnel involved in bunkering must comply with applicable provisions of federal law and regulations governing licensing, documentation, and oil transfer operations under 33 CFR Sec. 155 and 156, and 46 CFR Sec 12, 15, and 35.

Receiving vessel procedures.

Receiving vessel personnel on a covered vessel being refueled in state waters shall comply with the requirements of this section.

(1) Training. Except for receiving vessel subject to subsection (2) of this section, a receiving vessel's person in charge shall conduct a training session for all personnel with duties under the vessel's oil transfer procedure within 48 hours before a vessel's scheduled bunkering. If personnel not assigned bunkering duties in the oil transfer procedure are assigned such duties, the person in charge shall train such personnel before they assume bunkering responsibilities. Training shall be conducted in a language common to both the person in charge and personnel being trained. The training shall include, but is not limited to, a review of the:

- a) Vessel's preloading plan as described in subsection (3) of this section;
- b) Civil and criminal penalties and liabilities for not complying with federal and state regulations, and for spilling oil in Washington waters;
- c) Vessel's oil transfer procedure, including each person's responsibilities and station;
- d) English phrases and hand signals to communicate the instructions listed in subsection (8)(b) of this section; and
- e) Emergency shutdown procedures.

(2) **Intrastate operation.** A receiving vessel underway in state waters more than 50 percent of the time in a calendar year and that bunkers three or more times in a month shall conduct the training session described in subsection (1) of this section at least once every month.

(3) **Preloading plan.** The receiving vessel's person in charge shall prepare a preloading plan prior to conducting the training session required under subsection (1) of this section. The person in charge shall ensure that a copy of the plan is posted at a place where the plan is easily seen by, and in a language common to, vessel personnel engaged in bunkering. The preloading plan must include the:

- a) Identification, location and capacity of the vessel's bunker tanks receiving oil;
- b) Level and type of liquid in each bunker tank prior to the scheduled time for bunkering;
- c) Final ullage or innage, and percent of each bunker tank to be filled;
- d) Sequence in which the bunker tanks are to be filled; and
- e) Procedures to regularly monitor all bunker tank levels and valve alignments.

(4) **Watchstanders.** The vessel's oil transfer procedure must designate a point-of-transfer watch and a deck-rover watch. Each watch must be equipped with two-way communications to communicate with the person in charge and vessel Master or officer in charge.

- a) A point-of-transfer watch must remain at the point of connection with the delivering vessel during bunkering.
- b) The primary duty of the deck-rover is to monitor for oil spills on deck or over the side during bunkering. The deck-rover may perform other duties not in conflict with his or her primary duty. The deck-rover shall:
  - (i) Visually inspect the deck and water near or opposite all bunker tanks and each tank's sounding tube and vent, if accessible; and
  - (ii) Remain in a position during changing over of tanks or topping off to view any spillage on deck or in the water.

(5) **Personnel duties.** Except for the deck-rover watch, personnel assigned bunkering responsibilities may perform only those duties assigned while the vessel is bunkering. All personnel assigned to bunkering shall comply with their assigned duties under the vessel's oil transfer procedure and remain at their work stations during topping off.

(6) **Vessel access.** A receiving vessel must have an accommodation ladder in place to use for access between the receiving and delivering vessels, or between the receiving vessel and facility. If the vessel's Master determines that the ladder is inaccessible from the delivering vessel, another means of access must be provided that meets the standards established in the International Convention for the Safety of Life at Sea, 1974, as consolidated in 1986 (SOLAS). If the vessel Master determines access is not safe due to weather or seastate, the Master may allow communication by radio or by means set forth in subsection 8 of this section.

(7) **Soundings.** The receiving vessel's person in charge shall ensure that he or she receives sounding reports on tank levels according to the monitoring procedure establishes in the vessel's preloading plan.

(8) **Communication.**

- (a) The receiving vessel's person in charge shall ensure that communication between the receiving and delivering vessel or facility is accomplished either visually and by voice, sound-powered phones, radio, or air horn as required under 33 CFR Sec. 155.785. The receiving vessel's person in charge shall notify the delivering vessel's or facility's person in charge immediately before topping off begins.
- (b) The person in charge shall ensure that bunkering personnel know and use English phrases and hand signals to communicate the following instructions during bunkering: "stop," "hold," "okay," "wait," "fast," "slow," and "finish." Bunkering by a facility. During the pretransfer conference, the person in charge for a receiving vessel being refueled by a facility shall ensure that the receiving vessel's personnel comply with these rules and with the facility's operations manual.

**Emergency shutdown procedures.**

(1) If any of the receiving vessel's personnel discovers an oil spill either on deck outside fixed containment, or on the water, or believes an oil spill is likely, he or she shall request immediate shutdown of the bunkering operation.

(2) The delivering vessel's personnel shall immediately activate the emergency shutdown device at the request of any person on the receiving vessel.

**Pre-transfer conference.**

(1) Before any oil is transferred during bunkering, the receiving vessel's person in charge and the delivering vessel's or facility's person in charge hold a pre-transfer conference as required under 33 CFR Sec. 156.120. The persons in charge shall meet in person onboard either vessel or at the facility unless the receiving vessel's Master determines it is unsafe. The persons in charge shall:

- (a) State and discuss the contents of the declaration of inspection required under 33 CFR Sec. 156.150;
- (b) Discuss procedures for informing the delivering vessel's or facility's person in charge before the receiving vessel changes over tanks or begins topping off; and
- (c) Discuss emergency shutdown procedures and identify each vessel's means to shut down the transfer in an emergency.

(2) The receiving vessel's person in charge shall identify for the delivering vessel's or facility's person in charge those personnel designated as point-of-transfer watch and deck-rover watch.

(3) A receiving vessel may not receive bunkers unless a person proficient in English and a language common to the vessel's officers and crew is present at the pretransfer conference. The receiving vessel's owner or operator shall provide an interpreter proficient in English and a language common to the vessel's officers and crew at the request of the office, the delivering vessel's or facility's person in charge, or the U.S. Coast Guard.

(4) If the delivering vessel's person-in-charge is not satisfied with the receiving vessel's representative's English proficiency, he or she shall request an interpreter.

**Delivering vessel procedures.**

**Delivering vessel personnel may not begin bunkering unless:**

(1) The tanker man meets the certification requirements under 46 CFR Subpart 12.20 and has undergone annual training to become familiar with the requirements of this chapter.

(2) Access is provided to and from the receiving vessel.

(3) A pretransfer conference was held.

(4) A declaration of inspection was discussed in the pretransfer conference and signed by both persons in charge as required under 33 CFR Sec. 156.120;

(5) The delivering vessel's person in charge ensures that communication between the receiving and delivering vessel is accomplished either visually and by voice, sound-powered telephone, radio, or air horn, as required under 33 CFR Sec. 155.782; and

(6) The receiving vessel's person in charge has discussed procedures for informing the delivering vessel's person in charge before changing over tanks and beginning topping off.

**Work hours.** Receiving and delivering vessel personnel involved in bunkering may not work more than 15 hours in any 24-hour period nor more than 36 hours in any 72-hour period except in an emergency or spill response operation. For purposes of this section, "emergency" means an unforeseen situation that poses an imminent threat to human safety, or the environment, or substantial loss of property.

**Record keeping**

(1) The Master of a receiving vessel or his designee shall record in the vessel's official or deck log the date and time of the receiving vessel training session and the name and rating of who attended, immediately upon completion of the session.

(2) The Master or officer in charge shall record in the receiving vessel's official or deck log that a pretransfer conference was held prior to bunkering.

(3) The receiving vessel's preloading plan and declaration of inspection shall be retained on the vessel for 30 days from the date of bunkering.

(4) The receiving and delivering vessel's owner or operator shall maintain records, such as log book entries, maintenance records or payroll records, demonstrating compliance with work hour restrictions and shall, upon request, provide that information to regulatory officials.

**Owner and operator responsibilities.**

(1) Owners and operators of receiving and delivering vessels must ensure that the procedures required under this chapter are implemented and followed on their vessels.

(2) Owners and operators shall ensure that records are kept as required by this chapter and federal regulations. Oil spills.

(1) In the event oil is spilled into the water, or discharged onto either the receiving or delivering vessel's deck outside fixed containment, the vessel's person in charge shall immediately shut down the bunkering operation.

(2) Bunkering may not resume until:

(a) Notification is made as required; and

(b) The persons in charge determine that there is no threat of subsequent oil spills.

### **3.12 PROCEDURES FOR EMERGENCY TOWING**

Emergency towing shall be in accordance with the provisions of the Salvor as per Section 5.6, and in accordance with the following:

A) Peril at Sea and Salvage: A Guide for Masters

B) Company Policy

### **3.13 CREW RESPONSIBILITIES FOR RECORD-KEEPING AND SAMPLING**

The prime consideration for the crew during a shipboard incident is the safety of the crew, followed by the safety of the vessel. Whenever a vessel spills oil overboard, the crew shall draw a representative sample from onboard. Also, the crew shall obtain a sample of the spilled oil off the surface of the water, provided this can be done safely. The Record-keeping and Sampling Checklist in "Emergency Procedures

## **SECTION 4 SHORE-BASED RESPONSE ACTIVITIES**

### **4.1 QUALIFIED INDIVIDUAL**

### **4.2 PROCEDURES FOR TRANSFERRING RESPONSIBILITIES FOR SPILL CLEAN UP**

### **4.3 PROCEDURES FOR RESPONSE COORDINATION**

### **4.4 SPILL RESPONSE MANAGEMENT ORGANIZATION**

### **4.5 DIAGRAM OF UNIFIED COMMAND SYSTEM ORGANIZATION**

### **4.6 RESPONSE ORGANIZATION**

### **4.7 NON-PETROLEUM OILS & GROUP V OILS: PROCEDURES AND STRATEGIES FOR RECOVERY AND CLEAN-UP**

#### **4.1 QUALIFIED INDIVIDUAL**

Qualified Individuals are on-call on a 24-hour basis, are fluent in English, located in the United States, familiar with this plan, and trained in their responsibilities. In addition to this plan, the Qualified Individual maintains U.S. Coast Guard COTP area contingency plans. The readiness posture of the Qualified Individual and Alternate Qualified Individual shall be such that he/she may initiate decisions related to activation of resources within 30 minutes of notification. Persons assigned as Qualified Individuals or Alternate Qualified Individuals shall perform the following actions:

- Activating and engaging in contracting with necessary oil spill removal organizations.
- Act as Incident Commander until relieved by an authorized corporate officer.
- Establishing immediate contact with the U.S. Federal-On-Scene Coordinator.
- Acting as liaison with the Federal On-Scene Coordinator.
- Obligating, either directly or through prearranged contracts, funds necessary to carry out required or directed oil response activities.
- Notifying the Owner, as required by the plan.

#### **4.2 PROCEDURES FOR TRANSFERRING RESPONSIBILITIES**

##### **FOR SPILL CLEAN-UP**

The Master of the vessel shall initially direct emergency response activities for oil discharges. Note that this effort will generally consist of emergency response actions to ensure crew and vessel safety, to prevent further discharge of oil, and to contain and clean up on-board discharges of oil. The Master, by notifying the designated owner's representative, initiates the transfer of responsibilities for oil spill clean-up to the shore-based response activities. The Master shall complete transfer of clean-up responsibilities upon arrival of the Incident Commander or Qualified Individual.

#### **4.3 PROCEDURES FOR RESPONSE COORDINATION**

The Incident Commander is a contracted Spill Response Manager, supported on incidents involving a spill or threat of spill by other commercial responders. The Incident Commander shall assume the responsibilities for the clean up of oil spills, under the direction of the owner, until the incident has been concluded. He coordinates all administrative, technical, and operational activities at the spill scene until relieved by a competent corporate officer.

Primary duties include:

- Coordinates with the predesignated Federal-On-Scene Coordinator (or his representative) and state authorities.
- Coordinates/approves response strategy - keeps authorities informed.
- Establishes response priorities - keeps authorities informed.
- Ensures disposal of oil and oily wastes - coordinates with authorities.
- Keeps owner informed - requests additional resources as required.
- Coordinates with the U.S. Federal On-Scene Coordinator, state representative, and clean up contractors to ensure adequate and timely disposal of waste oil and debris in full accordance with the COTP Area Contingency Plan.

#### **4.4 SPILL RESPONSE MANAGEMENT ORGANIZATION**

The Spill Management Team is designed to rapidly blend with federal and state response agencies to form a unified command system capable of coordinating an effective response effort. To facilitate the efficient joining of unified forces the Spill Management Team, utilizing the Unified Command System (UCS), is modeled after the Incident Command System (ICS) concept. This concept is developed in such a manner so as to enable the structure of the SMT to adapt to a variety of emergencies, expanding and contracting as conditions warrant. Spills of a large magnitude may mandate that the entire SMT be mobilized, while discharges of a minor nature may dictate that a few select functions of the team are sufficient to handle the spill.

The decision to expand or reduce the functions of the SMT rests with the Incident Commander (IC) and is dictated by his or her assessment of the spill, and the appropriate level of response. The various Section Chiefs (Operations, Planning, Logistics, and Finance) shall apprise the Incident Commander of their assessment, and they will make recommendations as to the appropriate level of response, commensurate with their functions. Ultimately, the composition of the SMT rests with the Incident Commander. During the

course of a response the structure of the SMT may expand or contract several times, as the dynamics of the situation warrant.

The scope of responsibility, and the functional duties and responsibilities of the members of the combined, expanded SMT are located in Section 4.6. The organization chart for the Spill Management Team is presented on the following page.

Initial emergency spill response actions shall be managed by the vessel Master, to the extent that crew and vessel safety are not compromised. Subsequent spill response actions shall be managed by the Spill Management Team.

The Vessel Owner/Operator has contracted with O'Brien's Oil Pollution Service, Inc. (OOPS) to provide major functions in the owner's Spill Management Team (SMT). For a worst case spill company personnel will occupy key positions and will be supplemented by the OOPS personnel. The organization for a worst case spill consists of:

- An Incident Commander and Deputy Commander for overall command and control (owner or contracted OOPS representatives). The Qualified Individual will act as Incident Commander until an owner-appointed representative arrives on scene.
  
- A Command Staff composed of Public Affairs, Health and Safety, Security, Government Liaison, Administrative and Legal groups.
  
- Support Groups: Operations, Planning, Logistics, and Finance.

#### **4.6 RESPONSE ORGANIZATION**

1. **PURPOSE:** The Unified Command System (UCS) provides an organization capable of anticipating and responding to pollution response emergencies.
  2. **BACKGROUND:** UCS is based on the Incident Command System (ICS) and is intended to provide a common ground to jointly coordinate command and control for a large number of response agencies. UCS is designed to bring together continuous decision making input from response groups at every level: City, County, State, Federal and the commercial community.
  3. **RESPONSIBILITIES:** Each response agency group and/or individual is responsible to participate in UCS at the appropriate decision making level. The UCS is designed to develop proactive consensus building in communication between key response decision makers an integral and continuous part of the emergency response process. Each group and agency retains its own organizational identity, chain of command, and direct control of personnel and resource tasking.
  4. **Points A through F** which follow detail the planned UCS organization. The Command level of the UCS and each of the Division Chiefs in Planning, Operations, Logistics, and Finance are tasked with proactively evaluating organizational requirements and implementing changes to the UCS organization in anticipation of the requirements of specific response conditions.
  5. **UCS ORGANIZATION:** UCS is made up of the following five functional areas:
    - A. **Command Level:** Unified Command & Command Staff;
    - B. **Planning Division;**
    - C. **Operations Division;**
    - D. **Logistics Division;**
    - E. **Finance Division;**
- A. UNIFIED COMMAND**
1. The Unified Command for an oil discharge in the marine environment includes:
    - A. **FOSC** - The predesignated Federal On Scene Coordinator;
    - B. **IC** - The Qualified Individual or Incident Commander representing the Responsible Party; and
    - C. The predesignated State Incident Commander (State IC) representing State and local response agencies. Document Title: INTEGRATED VESSEL RESPONSE PLAN / SOPEP Issue: 04/04/2008 Document Section: 4- SHORE-BASED RESPONSE ACTIVITIES Rev: 0 Page: 6

## **2. RESPONSIBILITIES**

- A. Mobilize, implement, and manage the UCS organization structure needed to anticipate and proactively accomplish response requirements.**
  - B. Assess incident priorities.**
  - C. Determine strategic goals and tactical objectives.**
  - D. Develop or approve the Incident Action Plan and ensure each agency implements and accomplishes those actions for which they are responsible.**
  - E. Anticipate response needs and authorize the ordering, deploying, and demobilization of response resources.**
  - F. Serve as the ultimate safety authority, approve the Site Safety Plan, and ensure the maximum achievable level of worker health and safety for all responders.**
  - G. Authorize information releases to the media and participate in scheduled press conferences.**
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## **UNIFIED COMMAND SYSTEM UCS**

### **OPERATIONS DIVISION**

### **FINANCE DIVISION**

### **COMMAND STAFF**

### **DEPUTY ICIC FOSCSTATE/LOCAL**

### **LOGISTICS DIVISION**

### **PLANNING DIVISION**

#### **RESPONSE ORGANIZATION GUIDE:**

- 1. Establish Unified Command.**
- 2. Complete notifications to all agencies & interested parties: City, County, State, and Federal.**
- 3. Proactively implement Unified Command elements in anticipation of response needs.**

#### **B. COMMAND STAFF**

- 1. The Command Staff includes;**
  - A. Deputy IC;**
  - B. Safety Staff;**
  - C. Liaison Staff;**
  - D. Public Affairs Staff;**
  - E. Information Management Staff;**
  - F. Legal Staff.**
- 2. RESPONSIBILITIES**
  - A. DEPUTY IC**

- 1. Monitor and direct the Command Staff and the Division Chiefs to accomplish the strategic goals and tactical strategies defined in the Incident Action Plan.**
- 2. Serve as the IC, in the absence of the IC.**
- 3. Identify and establish priorities related to the internal management and organizational structure of the UCS.**

#### **B. SAFETY STAFF**

- 1. Identify and evaluate safety and health hazards that may impact both response workers and the public, designate exclusion zone boundaries, and determine levels of personal protective equipment required.**
- 2. Write and update the Site Safety Plan in accordance with the Area Contingency Plan.**
- 3. Implement and manage the Safety Staff needed to continuously monitor and evaluate safety and health conditions and to prevent unsafe conditions .**
- 4. Insure that all responders have adequate skills to safely perform assigned tasks and that required levels of training are documented.**
- 5. Provide or coordinate health and safety training and regular safety briefings required to perform response activities.**

6. Coordinate with public, government, and industry health and safety officials regarding public health concerns, including evacuations, limiting access to public areas, beach closures, marina closures, and fisheries restrictions.

7. Resolve and identify to the Unified Command significant safety and health issues.

**C. LIAISON STAFF (LIAISON OFFICER / GOVERNMENT RELATIONS COORDINATOR)**

The liaison function is responsible for providing linkages between the governmental agencies having oversight of the spill response with other members of the spill management team.

1. Assist the Incident Commander, and command and control personnel in carrying out liaison activities within the Unified Command, namely the coordination with the Federal On-Scene Coordinator, and SOSC.
2. Serve as the initial contact for agencies and organizations external to the Unified Command, and assign inquiries to the appropriate functional division of the spill management team.
3. Serve as a knowledgeable resource for understanding the laws and regulations governing spill response, particularly as they pertain to the roles of the various government bodies involved.
4. Relieve the Incident Commander, and command control personnel and other members of the spill management team of the need to continuously deal with various agencies concerned with the response, thereby allowing them to concentrate more fully on critical elements of the spill response.

**D. PUBLIC AFFAIRS STAFF**

1. Serve as the central clearing point for the dissemination of official information representing the UCS to the media.
2. Implement and manage the Joint Information Center (JIC) as the central location for disseminating official information.
3. Schedule, organize, and conduct UCS media briefings, interviews, and tours.
4. Develop presentation documentation such as charts, maps, and graphics to support both response operations and media briefings.
5. Resolve conflicting information and identify media concerns to the Unified Command.
6. Implement and manage the Public Affairs Staff needed to proactively accomplish Public Affairs tasking

**E. INFORMATION MANAGEMENT STAFF**

1. Implement and manage the Information Management Staff needed to facilitate the availability of response information in the UCS.
2. Coordinate the information management system of the UCS to ensure the proper routing and availability of response information in the UCS.
3. Coordinate standard information display systems, status boards, summary forms, and other methods to effectively manage response information .

**F. LEGAL STAFF - P & I CORRESPONDENT**

1. Provide legal advice to the Unified Command in support of response decision making.
2. Interface with the appropriate Federal, State, and Local jurisdiction.
3. Investigate cause of casualty

**PLANNING DIVISION**

**1. The Planning Division includes:**

- A. Planning Division Chief;
- B. Wildlife Branch;
- C. Technical Branch;
- D. Document Branch;
- E. Demobilization Branch.

**2. RESPONSIBILITIES**

**A. PLANNING DIVISION CHIEF**

1. Implement and manage the Planning Division branches and units needed to proactively accomplish Planning Division actions.
2. Anticipate the need for information describing the status of the response and manage the system required to collect and disseminate response information.
3. Provide detailed incident action plans based on projected response needs to the Unified Command.
4. Support the Unified Command by evaluating alternative strategies and tactical operation plans that anticipate changing requirements.
5. Recommended changes to the UCS organization that anticipate response requirements.

**B. WILDLIFE BRANCH - Predict potential impacts on natural resources and analyze actual impacts to provide:**

1. Type and number of wildlife that may require recovery and rehabilitation based upon species, sensitivity to oil, and mobility.
2. Establish wildlife recovery and rehabilitation protocols based upon species, location, availability of care facilities, and natural resource trustee relationships.
3. Identify resource and logistics requirements to accomplish hazing, capture, triage, care, transport, rehabilitation, and release of wildlife.
4. Collect and coordinate information required to document natural resource damages.

**1. Wildlife Recovery Unit**

- a. Direct, coordinate, and conduct wildlife recovery and capture operations.
- b. Maintain a central clearing point to direct recovered wildlife to appropriate rehabilitation facilities.
- c. Maintain evidence, tagging, and storage procedures for all recovered.
- d. Manage the capture, triage, first aid, and transportation of recovered wildlife.
- e. Provide training and briefing on actions and notifications required when response workers or members of the public encounter distressed wildlife.
- f. Identify resources and logistics support requirements.
- g. Report on wildlife recovery operations.

**2. Rehabilitation (REHAB) Unit**

- a. Establish wildlife rehabilitation centers and conduct rehabilitation operations.
- b. Maintain documentation on wildlife delivered for rehabilitation
- c. Store, document, coordinate laboratory analysis and necropsies, and properly handle deceased wildlife.
- d. Identify resources and logistics support requirements.

**C. TECHNICAL BRANCH - Provide scientific and technical information and analysis to support response planning and operations.**

**1. Alternative Response Technology (ART) Unit**

- a. Coordinate Natural Resource Trustees to forecast, identify, and assess natural resource damages.
- b. Provide the Planning Division Chief with forecasts and analysis of natural resource damages to directly support strategic response planning and assist in the prioritization of removal actions.
- c. Identify to the Planning Division Chief changes in protection priorities or response activities that could prevent, reduce, or minimize impacts to natural resources.
- d. Coordinate the NRDA protocols that will be used to evaluate and assess natural resource damages and ensure their consistent application.
- e. Identify the Lead Administrative Natural Resource Trustee and coordinate NRDA issues with all Resource Trustees.

**3. Disposal Unit**

- a. Provide the Planning Division Chief with a Disposal Plan that details the collection, temporary storage, transportation, recycling, and disposal of all anticipated response wastes.

**D. DOCUMENTATION BRANCH**

- 1. Record and protect all documents relevant to the incident.
  - a. Logs;
  - b. Incident reports;
  - c. Press releases;
  - d. Any historically significant material, etc.
- 2. Ensure each section is maintaining and providing appropriate document.

**E. DEMOBILIZATION BRANCH**

- 1. Develop a plan for the demobilization of resources committed to an incident and assist in the implementation of that plan.  
ident Action Plan.
- 3. Develop detailed mission assignments, sortie schedules, duty lists, and operational assignments to accomplish the strategic response goals and tactical operational objectives.
- 4. Identify additional response resources required or recommended the release of resources to the Unified Command.
- 5. Evaluate and report on response counter measure efficacy.

**B. RECOVERY & PROTECTION BRANCH**

- 1. On Water Recovery Unit
  - a. Direct the delivery, deployment, and operation of skimmers.
    - b. Provide a field status of skimming operations to the Operations Division Chief.
  - c. Maintain estimates of product recovered.
    - d. Identify field conditions related to the effectiveness of skimming operations.
  - e. Identify logistics support needs of skimming operations.
    - f. Ensure recovery and holding containers operate efficiently
- 2. Protection Unit
  - a. Deploy and maintain booms, dikes, or other protection devices as directed to accomplish protection, diversion, or containment strategies, and modify planned strategies, as required by actual field conditions.
  - b. Provide estimates of protection completion times.
  - c. Report on the effectiveness of booming to the Operations Division Chief.
  - d. Maintain booms and mooring systems and ensure that product which has been contained, diverted, or captured is recovered.
  - e. Identify protection resource and logistics needs, including boom types, lengths, mooring systems, and vessel support requirements.

- f. Propose alternative protection strategies based on field results and environmental conditions.

**3. Shoreside Recovery Unit**

- a. Manage the personnel and equipment necessary to accomplish shoreside recovery and cleanup objectives established in the Incident Action Plan.
- b. Report on the efficiency of shoreside recovery and cleanup methods.
- c. Identify resource and logistics support needs.
- d. Project cleanup completion dates.
- e. Request Natural Resource Trustees sign off on shoreline cleanup activities.

**4. Disposal Unit**

- a. Direct the collection, temporary storage, transportation, recycling, and disposal of recovered wastes.
- b. Estimate the volume of waste that may be recovered and ensure adequate resources and logistics support are provided.
- c. Manage temporary storage sites and prevent secondary discharges or cross contamination.
- d. Confirm the laboratory results characterizing the wastes as hazardous or non-hazardous and prepare required RCRA manifests as required.
- e. Confirm the capacities of recycling or disposal sites.

**5. Decontamination Unit**

- a. Identify decontamination needs and provide resources to accomplish required cleaning and decontamination of personnel and equipment.
- b. Identify resource and logistics needs to accomplish decontamination requirements.

**C. EMERGENCY RESPONSE BRANCH**

**1. Salvage Unit**

- a. Direct and manage salvage resources to accomplish tactical operational objectives as directed by the Operations Division Chief.
- b. Conduct situation investigations, grounding surveys, and analyze salvage problems.
- c. Plan and carry out salvage operations.
- d. Plan and carry out emergency lightering operations.
- e. Identify salvage resources and logistics support needs.
- f. Report on the status of salvage operations.

**2. Firefighting Unit**

- a. Direct and manage firefighting resources to accomplish tactical operational objectives as directed by the Operations Division Chief.
- b. Conduct situation investigations, fire surveys, and analyze firefighting problems.
- c. Plan and carry out firefighting operations.
- d. Identify firefighting resources and logistics support needs.
- e. Report on the status of firefighting operations.

**C. EMERGENCY RESPONSE BRANCH**

**3. Hazardous Materials (HAZMAT) Unit**

- a. Direct and manage HAZMAT resources to accomplish tactical operational objectives as directed by the Operations Division Chief.
- b. Conduct HAZMAT situation investigations, site surveys, air monitoring, and analyze HAZMAT problems.
- c. Identify safety hazards that may be present and report observations to the Safety Officer.
- d. Designate HAZMAT exclusion zones and report designations to the Safety Officer.
- e. Plan and carry out HAZMAT operations.
- f. Identify HAZMAT resource and logistics support needs.
- g. Report on status of HAZMAT operations.

**4. Emergency Medical Services (EMS)**

- a. Prioritize EMS missions and respond to medical emergencies as directed by the Operations Division Chief.
- b. Manage dedicated EMS resources and coordinate with other EMS systems.

- c. Identify EMS resource and logistics needs.
- d. Report on the status of EMS operations.
- e. Shift to Logistics Division within the first 24 hours.

#### **D. AIR OPERATIONS BRANCH**

##### **1. Air Traffic Coordination Branch**

- a. Direct and coordinate air operations as required by the Incident Operations Plan and Area Contingency Plan.
  - b. Prioritize and assign air ops missions.
  - c. Request additional aircraft resources and release aircraft when authorized.
  - d. Coordinate ground services and aircraft support.
  - e. Identify additional resources and logistics needs.
- f. Report on the status of air operations

##### **2. Surveillance Unit**

- a. Direct and coordinate air operations missions to conduct oil spill tracking, observations, and remote sensing.
- b. Coordinate mission tasking with scientific and technical observers.
- c. Identify additional resources and logistics needs.
- d. Report oil spill tracking, observation, and remote sensing results and coordinate observations to direct operational activities.

##### **3. Applications Unit**

- a. Conduct air operations missions to apply dispersants, chemical countermeasures, bioremediation, or other alternative response technologies as directed by the Operations Division Chief.
- b. Identify additional resources and logistics needs.

#### **E. STRATEGY BRANCH**

##### **1. Strategy Unit**

- a. Develop and update strategic response goals and tactical objectives in anticipation of each phase of the response.
- b. Develop and modify detailed incident action plans based on projected response needs.
- c. Prepare and update alternative response strategies and tactical operations plans that anticipate changing requirements.
- d. Develop natural resource protection priorities and protection strategies.
- e. Identify response agencies, groups, individuals, or resources that need to be incorporated into the UCS.

##### **2. Situation Unit - Collect, analyze, and disseminate information about the situation as it progresses, including:**

- a. casualty information;
- b. discharge information, observations, and forecasts;
- c. environmental observations and forecasts;
- d. impacts to natural and economic resources; and
- e. the status of response operations.

##### **3. Resource Unit - Collect, analyze, and disseminate information about the status of current and projected response resources, including:**

- a. personnel;
- b. equipment;
- c. vessels;
- d. aircraft;
- e. vehicles;
- f. facilities; and
- g. materials and supplies

#### **E. LOGISTICS DIVISION**

##### **1. The Logistics Division includes:**

- A. Logistics Division Chief**

- B. Communications Branch
- C. Service & Support Branch
- D. Personnel Branch
- E. Site Management Branch

## **2. RESPONSIBILITIES:**

### **A. LOGISTICS DIVISION CHIEF**

1. Implement and manage the Logistics Division branches and units needed to proactively accomplish Logistics Section actions.
2. Ensure the prompt delivery of resources to support response operations. Early emphasis on the delivery of heavy response equipment and personnel, providing communications resources, and the continuous need for support services are the highest priorities of the Logistics Section.
3. Manage, document, support, and anticipate the need for response resources, equipment, personnel, and services.
4. Anticipate, coordinate and proactively manage all requests for additional resources and logistics support.
5. Develop logistics alternatives to support Planning and Operation Divisions missions.
6. Report on Logistics Division operations.

### **B. COMMUNICATIONS BRANCH**

1. Develop, implement, and coordinate the Incident Communications Plan.
2. Deliver, issue, track, maintain, support, and recovery communications resources, telephones, radios, base stations, repeaters, and other communications facilities.
3. Identify additional communications resources or logistics needs.
4. Report on the status of communications capabilities and operations

### **C. SERVICE & SUPPORT BRANCH**

#### **1. Medical Unit**

- a. Provide and coordinate emergency and routine medical services to response personnel.
- b. Manage dedicated Medical Unit resources and coordinate additional medical services.
- c. Identify resources and logistics support needs.
- d. Report the status of Medical Unit Services.

#### **2. Food Unit**

- a. Provide and coordinate meals and subsistence support to response personnel.
- b. Plan, document, and account for the number and type of meals required.
- c. Establish kitchens, galleys, canteens, and other food services support locations.
- d. Establish and manage sources of supply to support meal and subsistence requirements.
- e. Provide potable drinking water, coolers, and other beverages required to support response operations.
- f. Identify additional resources and logistics support needs.
- g. Report on the status of food and subsistence services.

#### **3. Berthing Unit**

- a. Provide and coordinate berthing facilities assigned to response personnel.
- b. Plan, document, and account for the number and type of berthing facilities required.
- c. Maintain hotel contracts, berthing quarters, barracks vessels, and remote location camps to provide living, sleeping, hygiene, and restroom facilities for response personnel.
- d. Identify additional resources and logistics support needs.
- e. Report on the Status of Berthing Unit services

#### **4. Supply Unit**

- a. Deliver and coordinate the delivery of response equipment, material, and supplies.
- b. Maintain stocks of expendable supplies ready to be issued.
- c. Plan, document, and account for response supplies and materials.
- d. Issue personal protective equipment, ready gear bags, and expendable personal supplies to response personnel.
- e. Coordinate the ordering and delivery of spare parts, supplies, materials, and other resources to meet response needs.

f. Report on response equipment delivery time tables, inventories of available supplies, and the status of Supply Unit services.

#### **5. Facilities Unit**

- a. Provide and coordinate response facility locations, including Command Posts, incident operation bases, staging sites, piers, warehouses, communications facilities, Joint Information Center, berthing, messing, and sanitary facilities, and other response facilities.
- b. Plan, document, and account for response facilities needed.
- c. Manage and support facility utility and maintenance services.
- d. Provide portable hygiene and restroom facilities to support remote operation locations.e. Identify additional facility resources and logistics support needs.
- f. Report on the status of response facilities.

#### **6. Transportation Unit**

- a. Provide, prioritize, schedule, and coordinate response transportation services.
- b. Plan, document, and account for response transportation services.
- c. Manage and maintain dedicated transportation resources and coordinate transportation using resources of opportunity.
- d. Operate and manage the "Motor Pool" of dedicated ground transportation vehicles, including cars, vans, buses, and trucks.
- e. Assign and coordinate duty driver schedules.
- f. Identify additional transportation resources and logistics support needed.
- g. Report on the status of response transportation services.

### **D. PERSONNEL BRANCH**

#### **1. Assignment Processing Unit**

- a. Coordinate and document the assignment of UCS personnel to meet response organization needs.
- b. Coordinate requests for additional response personnel.
- c. Coordinate the processing of arriving response personnel.
- d. Plan, document, and account for response assignments made to individuals, agencies, groups, and commercial personnel.
- e. Manage the Personnel Locator system to track the assignment and location of individual responders.
- f. Identify additional resources and logistics support needed to support personnel processing and tracking.
- g. Report on the status of response personnel assignments and processing.

#### **2. Volunteer Unit**

- a. Manage and coordinate the processing of private individuals and public groups volunteering to perform response operations.
- b. Plan, document, and account for volunteer coordination and processing.
- c. Manage the training, qualification, and certification process needed to convert private volunteers into qualified emergency response workers.
- d. Establish and manage volunteer processing sites needed to inform potential volunteers of response requirements.
- e. Coordinate authorized response assignments made to qualified emergency response workers
- f. Identify additional resources and logistics support needed to support volunteer processing.
- g. Report on the status of volunteer processing.

### **E. SITE MANAGEMENT BRANCH**

#### **1. Staging Unit**

- a. Identify staging sites needed to the Operations Division.
- b. Prepare designated staging sites and facilitate the movement of response resources into operation.
- c. Identify additional resources and logistics needs.
- d. Report on the status of equipment ready for operations.

## **2. Security Unit**

- a. Coordinate and conduct physical security missions as directed by the Operations Division Chief.**
- b. Develop and implement the Incident Security Plan**
- c. Identify additional resources and logistics needs.**
- d. Report on the status of security operations.**

## **3. Waterways Unit**

- a. Coordinate and conduct waterways management and vessel traffic control missions as directed by the Operations Division Chief.**
- b. Develop safety zones, security zones, and vessel traffic management alternatives for approval by the Captain of the Port (COTP).**
- c. Coordinate and implement enforcement of safety zones, security zones, and vessel traffic management systems.**
- d. Manage and direct dedicated Waterways Unit resources and coordinate Waterways Unit missions with resources of opportunity**

## **F. FINANCE DIVISION**

### **1. The Finance Division includes:**

- A. Finance Division Chief**
- B. Claims Branch**
- C. Cost Branch**
- D. Contract Branch**

### **2. RESPONSIBILITIES:**

#### **A. FINANCE DIVISION CHIEF**

- 1. Coordinate and ensure the proper completion of response cost accounting documentation.**
- 2. Coordinate and manage response ceilings, budgets and cost estimates.**
- 3. Serve as the primary contact to the owner's accounting group and/or the protection and indemnity club for cost information.**
- 4. Resolve any discrepancies between government field operations and contractors prior to submitting documentation.**
- 5. Ensure all documentation is submitted in a timely fashion.**
- 6. Submit Completion Report. If case is expected to last several months, submit interim reports at 30 day intervals.**
- 7. Report on all Finance Division operations.**

#### **B. CLAIMS BRANCH**

- 1. Receive, coordinate, document, and process claims against the State funding sources.**
- 2. Coordinate evaluation of personal property damage claims.**
- 3. Identify additional resources and logistics support needed to process claims.**
- 4. Report on the status of claims processing.**

#### **C. CONTRACT BRANCH**

- 1. Negotiate, coordinate, document, and manage all contracts needed to support response operations.**
- 2. Manage, coordinate, document, and account for all procurement orders needed to support response operations.**
- 3. Manage, coordinate, document, and account for all payments made to support response operations.**

#### **D. COST BRANCH**

- 1. Manage, coordinate, and perform cost documentation in accordance with good business practices to account for response costs.**
- 2. Plan, coordinate, document, and account for response costs based on the time personnel, equipment, and other resources are accountable to the response**

#### **4.7 NON-PETROLEUM OILS & GROUP V OILS: PROCEDURES AND STRATEGIES FOR RECOVERY AND CLEAN UP**

##### **NON-PETROLEUM OILS (Example - Edible & Animal Oils)**

*Vessels covered in this Plan may carry petroleum and non-petroleum oils. The spill volumes in each vessel specific Appendix B are based on petroleum oils because for planning purposes a spill of non-petroleum oil will be treated the same as for petroleum oils. In addition, the following shall be considered:*

##### **Purpose**

The purpose of this annex is to establish procedures for responding to non-petroleum oil spills.

##### **Definition**

Non-petroleum oils include, but are not limited to, animal and vegetable oils. *Examples* of these oils are nut oils (vegetable) and lard (animal).

##### **Background**

Non-petroleum oils have the potential for congealing, emulsifying, mixing, or behaving in other unique ways that create different problems for the oil spill responder. The reaction of the oil once it reaches water is not entirely predictable. The U.S. Coast Guard has stated that it was unable to identify with any precision the behavior of non-petroleum oils, once in the water, nor strategies as learned by experience with Groups I and IV of Petroleum oils. These strategies are well understood by the company and its special advisors.

Therefore, the potential spill planning volumes named in this Plan (see *Appendix B*) for petroleum oil, are applicable to non-petroleum oil as well.

##### **Strategy**

While strategies applicable to petroleum oil (locate; contain through booming; on water removal with skimmers, sorbents, etc.; and shoreline cleanup) are applicable to non-petroleum oils, this Plan sets down strategies to augment those that are more traditional and which are in excess of those required by Coast Guard.

##### **Reporting Requirements**

When reporting a discharge or threat of discharge, the Master, Qualified Individual, and Spill Response Team shall take care to mention that the oil is not petroleum oil, provide the common name of the oil, and indicate that the behavior of the oil may not be predictable.

The following characteristics shall be provided when making the report (if known and as applicable):

- Flash Point
- Flammability Classification
- Appearance
- Odor
- pH Factor (the degree of acidity or alkalinity of a solution)
- Boiling Point
- Melting Point
- Solubility in water
- Specific gravity
- Reactivity with water
- Danger to personnel

### Evaluation

As soon as possible after a spill has occurred, the Incident Commander shall request a meeting with the Federal On-Scene Coordinator, consistent with the regulatory requirements for petroleum oil. That meeting should be attended, at least, by the following persons:

- The Federal On-Scene Coordinator
- The Incident Commander
- State Authorities
- Local Authorities
- The Federal Scientific Support Coordinator
- The Company Advisor
- P & I Club Representative

The purpose of this meeting is to discuss the situation with all interested parties and to gauge the effectiveness of the response thus far and, in particular, to bring together the scientific community to address any special concerns and recommend special strategies.

If it is determined by the On-Scene Coordinator that special strategies should be explored and implemented if possible, the Company Advisor shall be tasked to develop that strategy, in coordination with the Federal Scientific Support Coordinator, State Authority, and Local Authority. Such strategies shall address potential disposal problems.

Once the detailed strategy has been developed, the plan shall be presented to the Federal On-Scene Coordinator, State, and Local authorities (Unified Response Team) for approval. Upon approval the plan shall be carried out as directed by the company and the Federal On-Scene Coordinator. The Spill Response Team shall be notified of developments without delay.

### Resources

All of the resources named in this Plan shall be utilized, to the maximum extent practicable, in locating, mitigating, or removing non-petroleum oils

### **GROUP V OILS**

**GROUP V OILS PERTAIN TO ALL COVERED VESSELS IN THE VRP**

### **GROUP V OILS**

**BEHAVIOR & PROPERTIES OF GROUP V OILS**

**LOW DEGREE API OILS (LAPIO)**

### **GENERAL CHARACTERISTICS:**

Low Degree API oils have an average specific gravity greater than 1.000. Heavy residual petroleum oils contain greater concentrations of heavier aromatic compounds. Some of these heavy fuel oil blends are composed of residuals of crude oil distillation and refinery thermal cracking processes including, pitch, refined crude, residual cracking tar, fractionator bottoms. The residual oil is cut with cracked gas oils and lighter distillates to meet client specifications for viscosity, pour point, and sulfur content. These products, called Group V oils, provide a higher BTU value for a lower cost than traditional products such as No. 6 fuel oil. Other Group V oils can be natural petroleum hydrocarbons known as extra heavy crude oils and bitumens. These oils can be emulsified with water, but they still maintain their low API characteristics.

### **LAPIO BEHAVIOR IN WATER:**

Each petroleum blend is different, but a number of common characteristics can predict the oil's behavior when it comes in contact with water during a spill, particularly its low API number. A petroleum hydrocarbon with a low API is commonly referred to as a LAPIO, for low API oil.

The API of oil indicates its specific gravity, or how dense it is relative to pure water. Specific gravity and API are related by:

$$\text{degree API} = (141.5 / \text{sp.gr.}) - 131.5$$

A low degree API corresponds to high specific gravity. The specific gravity of fresh water is 1.0. Oils having an API lower than 10 can become suspended in the water column or sink. The API only predicts whether the product will float or sink when it initially spills.

**LAPIOS ARE BLENDS THAT CAN EASILY SEPARATE UPON SPILLING. AS LONG AS AIR AND WATER TEMPERATURES ARE AT LEAST 7.2 DEGREES CENTIGRADE (44 DEGREES FAHRENHEIT), THE OIL WILL REMAIN LIQUID, BUT, DEPENDING ON THE INDIVIDUAL DENSITIES OF THE DIFFERENT COMPONENTS IN THE FUEL BLEND, SOME OF THE PRODUCT MAY FLOAT, SOME MAY REMAIN SUSPENDED AND SOME MAY SINK.**

Ocean/tidal currents also affect whether portions of LAPIO sink, float, or remain in the water column. In currents less than 0.5 knots, the denser portions of the LAPIO will sink. Stronger currents can cause the LAPIO to float and/or disperse. In very slow currents (less than 0.1 knot) the oil will remain on the ocean bottom and resurface with increases in current velocity or, occasionally, in shallow areas, with solar heating and turbulence from afternoon sea breezes. In some cases, LAPIOs will go through cycles of sinking and refloating. The type of sediment present also affects the LAPIO's behavior since the two can mix and increase the likelihood of sinking. When exposed to the normal swell of the ocean, this Group V oil may undergo an interesting change just below the sea surface; it forms small balls of thick Group V oil that appear much like "chocolate covered malt balls". The Group V oil could have a density just slightly less than neutral buoyancy. Surface energy and mixing transport the ball down the water column and it "sticks" to the bottom substrate and rests (at least temporarily). Many thousands of balls will coalesce to form large patches of "sunken oil". Under quiescence or calm conditions, a slight buoyancy difference between the Group V oil and the water allows the Group V oil mats to separate, part of the Group V oil that has not accumulated sediments actually sloughs off the mat as another "chocolate covered malt ball" which floats to the surface. Under higher-energy conditions, this is not possible as the turbulence keeps the oil mixed: sloughing off then being pushed back down to contact the mat or the ocean bottom. It again "sticks" and process continues. The utmost plastic qualities of this oil, the relatively coarse bottom substrate, and warm ocean waters contribute to this phenomenon. The fraction of the oil that becomes heavily mixed with the substrate will remain, but that fraction which is buoyant will slough off. When the Group V oil is released into a high-energy surf zone, it quickly mixes into the water by wave action. Sand suspended in the waves mixes with the Group V oil. An addition of 2% sand by weight would cause the oil to sink. At the same time the removal of the sand would cause Group V oil to refloat. Wave turbulence could cause the Group V oil to separate from the sand, rise to the surface, and create a sheen. Daily cycling with Group V oil sinking and refloating can be caused by afternoon sea breezes and solar heating in tropical climates.

#### **CHEMICAL ANALYSIS OF GROUP V OIL:**

Interpretation of Material Safety Data Sheet for some LAPIOs suggests that this oil is consistent with its classification as a heavy, No. 6 fuel oil. The oil is enriched with aromatic hydrocarbons relative to saturate compounds. Evaporation and dissolution will significantly reduce the concentration of naphthalene and alkylated homologs in the stranded oil. It is the naphthalenes that have the highest acute toxicity in marine fuel oils; therefore, the spilled oil will become less acutely toxic as it weathers over several days. Submerged oil will weather at slower rates than stranded beach oil. Given the low viscosity and high aromatic nature of this oil it is expected to be resistive to biological degradation.

Physical chemical data provided in the MSDS sheet characterized the oil as having a specific gravity greater than 1.0, a viscosity of 380-420 centistokes at 50 degrees centigrade, and a sulfur content of 2.5-3.8%.

Other Group V oils, known as natural bitumen have a specific gravity of greater than 10.

#### **PROCEDURES & STRATEGIES**

Defensive actions should be taken as soon as possible after a pollution incident is discovered. These actions include, but are not limited to applying traditional spill related cleanup to non-traditional oil spill cleanup operations of submerged oil recovery.

- \* Containment measures and monitoring the speed of a pollutant which includes placement of right type of boom and barriers for protection and use of chemical dispersants and other materials (subject to the approval from USCG OSC) to control the spread of a pollutant.
- \* Measures to warn/evacuate the public with the assistance provided by the state and local authorities.
- \* Provisions for temporary drinking water.
- \* Removal of submerged, substrata, floating oil, cleanup, and disposal measures (shoreline pollutants, and disposal facilities).
- \* Providing navigational cautions while response activities are underway

**Obtain the following assistance:**

- \* Salvage (dredging, submersible equipment)
- \* Bunkering/lightering
- \* Marine contractors (heavy marine, semi-submersible equipment)
- \* Land borne, waterborne, aircraft surveillance
- \* Wild life protection and cleanup
- \* Fire-fighting boats
- \* 4 Towing
- \* Diving & underwater techniques
- \* Cranes
- \* Boat launching sites
- \* Laboratory analysis
- \* Industry resources
- \* Lighting
- \* Telecommunications
- \* Media relations
- \* Federal, state, and local agency support
- \* OSRO group
- \* Medical help

**SUBMERGED OIL RECOVERY OPERATION:**

The prime objective is to safely remove as much oil from the bottom as quickly as possible. A unified approach to problem-solving is essential during a response. Attention would be paid to the specific area which the submerged oil has impacted. Awareness to bottom characteristics, sensitive areas, and collection areas would be essential. Once a consensus on the removal strategies is reached by the Unified Command, the OSRO would be directed to deploy the proper equipment. Traditional recovery and disposal equipment will be deployed in conjunction with the submersible equipment.

Viewing submerged oil by means of helicopter overflights, underwater video, survey divers, and photo processing to evaluate and implement proper recovery techniques.

**RECOVERY OF SUBMERGED OIL BY DIVERS:**

The methods to recover submerged oil are primarily dependent on the characteristics of the oil and site conditions. The mode of diving is dependent on the recovery equipment used, and expected degree of diver contamination. There are three types of submerged oil to recover:

- \* Submerged fields of oil on the bottom.
- \* Submerged oil buried and mixed with sand.
- \* Submerged oil adhering to sea grass, corals.

The use of divers is advisable in areas where pockets of oil can be visually seen and where oil is recoverable by pumping equipment. Trained commercial divers are necessary in areas inaccessible or inappropriate for dredging because of environmental concerns. Scuba diving equipment is not appropriate where the risk of oil ingestion is high or where voice communications are needed to properly coordinate the operation of mechanical equipment, manual removal of oil from sea grass with sorbent snare.

Appropriate tasks and diving methods should be implemented to maximize recovery efforts. Water depth is to be considered as to which mode of diving to use:

- \* Utilize sport scuba divers having local knowledge of the areas for survey work using underwater videos and photos to provide documentation of the site, and recovering oil from sea grass and corrals using snare and bagging congeal oil that is no longer pumpable.
- \* Utilize trained and experienced commercial divers using surface supplied air, topside voice communications and protective dry suits to handle the pumping of submerged oil and in dredging operation

#### **SUBMERGED FIELDS OF OIL ON THE BOTTOM:**

Different combinations of topside pump systems to be used to recover this type of oil:

- \* Vacuum transfer unit.
- \* Vacuum Trucks.
- \* Submersible pumps.
- \* Poppet pumps.

All pumping systems have a 2", 3" or 4" diameter suction hose with a quick closing valve for diver control and safety.

#### **SUBMERGED OIL BURIED WITH SAND MIX:**

This type of recovery requires the most topside/diver communication and coordination to the necessity of having to alternately pump material and water to lessen the problem of cold oil/sand mix clogging. Buried oil/sand and mix in trenches will require "VANE" type centrifugal pumps to effectively remove the material. If the oil/sand mix is congealed and not feasible to pump then it is necessary to recover it by hand bagging using poly-burlap bags.

#### **OILY GRASS/CORRAL:**

The recovery of oil from sea grass/coral reefs can be accomplished by utilizing a standard 18" sorbent snare, gently wiping the oil and rolling it in tar mats of oil. This operation can be performed by scuba divers using "Tyveks" on their wet suits for protection.

#### **DIVER ASSISTED DREDGING OPERATION:**

Dredging is a quick way to recover large quantities of submerged oil, but it generates large amounts of water and sediment that must be treated or disposed of. Scuba and surface supplied divers are used to assist the dredge operations. Survey the bottom ahead of the dredge's path in order to remove any obstructions which would foul the dredge's pump or cutter head. Divers assist in moving dredge's anchors, connecting and disconnecting dredge's pipelines. Divers survey dredge passes on a daily basis to determine the areas of oil missed.

#### **DIVER'S SAFETY:**

Safety is a paramount concern on any dive project, and is assigned the highest priority during submerged oil recovery operation. The diving operation is conducted during daylight hours only. The Dive Master has its own particular entry/exit, emergency procedures and equipment check list, and other safety concerns that need to be addressed daily in compliance with OSHA regulations 29 CFR 1910, subpart T, commercial diving operation.

#### **DREDGE RECOVERY OF SUBMERSIBLE OIL:**

Depending upon the nature of the sea bottom, and water depth, only certain type of dredging systems can be deployed for removal of submerged oil.

- \* Clam shell dredging.
- \* Hydraulic cutter head dredging.

Clam shell dredging requires additional support of lightering barges, tug boats and deep water for successful submerged oil recovery operation. Digging by clam shell causes enormous amount of bottom sediments to be removed, and since the clam shell buckets are not water tight when hoisted above water to be dumped into the lightering barge, portion of the submerged oil/water is spilled over the side of the lightering barge with each swing of the clam shell bucket, causing labor intense cleanup of the barge prior to removal of the barge from the boomed zone.

Hydraulic suction dredging system consists of rotary cutter head, a centrifugal vane pump booster pumps, and dredge piping which can be pumped ashore into a trench/dike containment for oil/water/sand separator. Small hydraulic dredges are ideal for shallow water submerged oil recovery; 10' wide dredges can be transported over the road. With suitable anchor and cable system, the dredge makes "fan" pattern on the bottom emanating from the pivot anchor, skimming the top layer of the fouled bottom and pumping it ashore into the dike/trench. When the dredge reaches the limit allowed by the anchors, the anchors are shifted to new locations for expanded bottom coverage.

Prior to the commencement of dredging operations, preparation of the site is necessary to accommodate dredge piping into a dug trench ashore. The trench is lined with plastic sheeting. The dredge spoils is collected in the trench. The floating oil is recovered using a small weir skimmer attached to a vacuum truck and by using passive snares and absorbent materials is disposed of in 55 gallon drums. Sand is

removed from the oil/water/sand separator using a backhoe and stockpiled in the prepared area to allow sand to de-water by gravity.

#### **DREDGING PERMIT:**

The U.S. Army Corps of Engineers requires that a permit be applied for and approved before dredging operations could commence.

#### **HEALTH & SAFETY:**

Specific health and safety plan for dredging operations to be implemented, addressing description of work, hazard assessment, chemical hazards, work zones, personal protection equipment; training, first aid, dredge emergencies, weather emergencies, and decontamination.

#### **PUMPING EQUIPMENT:**

The type of pumping equipment selected depends on the viscosity of the oil and the degree of sediment loading. Fresh, relatively liquid oil can be removed with positive displacement submersible Archimedean screw pumps or piston pumps. Submersible centrifugal impeller pumps are very efficient for recovering large patches of oil mixed into sediment.

The equipment deployed by the OSROs will include:

- \* Remote Operated Vehicle (ROV).
- \* Silt Net Booms.
  
- \* Clam Shell Dredge.
- \* Hydraulic/Suction Dredges.
- \* Portable Dredging Equipment.
- \* Submersible Suction & Positive Displacement Pumps.
- \* Water Column Sampler.
- \* Sonar Equipment.
- \* Video Equipment.

#### **BOTTOM BARRIERS:**

Submerged physical barriers such as containment screens/nets, trenches, dikes/dams, or diversion systems are installed across a waterway to contain sinking oils where water depths are less than 10-20 feet and currents are less than 6 knots.

Containment curtains (geofabrics), nets, or wire mesh screens can be installed along the bottom and across the entire channel, in front of the oil's leading edge, or around the point of entry to contain the submerged oil. If the oil has solidified, relatively fine mesh fishing nets or metal screen can be anchored along the bottom of a channel and angled toward one shoreline to divert the bottom migrating oil to a recovery point. Silt curtains or semi-permeable geofabrics may also be used for non-solidified oils. The bottom edge of the net or screen has to be weighted or sunk into substrate to ensure a good seal.

A line of fence posts, steel pipes, or stakes are driven into the substrate with the screen or net fastened to the upstream side similar to the construction of sorbent barrier if deployed at the oil's point of entry into the waterway, the screen/net can also be deployed in a semi-circle in front of the migrating oil to contain small non-continuing spills.

#### **SUBMERGED DIKES/DAMS:**

Dredging or earthmoving equipment is used to construct submerged dikes of granular material to minimize current induced dike erosion. The dike/dam should be at least twice the height of bottom layer of migrating oil to impede its progress. Dike or dam construction is often limited to a shallow and relatively quiescent waters with natural barriers (steep stream banks) on one or both sides.

#### **TRENCHES:**

Trenches are installed down current of the spill and preferably in locations with relatively shallow depths and slow currents. Dredging equipment such as Backhoes, Clamshell buckets, and hydraulic suction dredges are necessary for submerged trench construction. For inlets or small channels, the dredging can be accomplished from the stream bank. Water based operations (barge mounted) may be required for larger or deeper waterways. The trench must be sufficiently wide and deep to avoid being filled in by sloughing and natural sediment movements. An overflow dam should be constructed on the downstream side to enhance containment effectiveness.

## **LOGISTICS:**

Specific manpower and equipment requirements will depend on the containment method used, width and depth of the waterway, availability of equipment, and nature of oil involved (solid, semi-solid, or liquid). In turbid or deep waters, monitoring equipment such as radar, sonar, or various geophysical devices will be required to locate submerged oil and evaluate the effectiveness of the containment techniques.

### **Monitoring Cleanup Operations:**

- \* Prioritizing areas to be cleaned-up and degree of removal required. Removal methods with the advice and authorization from the OSC. Ensuring authorized cleanup methods are used.
- \* Ensuring cleanup techniques and equipment result in the least environmental damage or interference with designated water uses.
- \* Recommending change to improve cleanup operations with the approval from the OSC.
- \* Enforce applicable safety standards.
- \* Volunteers from private organizational or individuals may volunteer to assist in the response effort and may be utilized in such areas such as breach surveillance, logistic support, bird, other wildlife treatment, and scientific investigation. Approval from the USCG OSC to be obtained.

## **CLEANUP STRATEGIES:**

- \* Mechanical containment and recovery
- \* Dispersants
- \* Burning
- \* Self cleaning (letting nature do the work)

The most difficult type of shore to clean is a cobble or pebble beach, the oil penetrates deeply through the spaces between the stones.

The rate of natural "self cleaning" on a beach depends largely on the amount of wave action. The stronger the waves, the greater the breakdown of oil.

Using heavy equipment and having many personnel on a beach can cause the oil to seep deeper into the sand and pebbles than it would naturally.

The use of high pressure water hose or dispersant chemicals can destroy shoreline plants and animals. Moving the rocks on a rocky beach can cause damage to shoreline organisms and the physical integrity of the beach.

## **CLEANUP TECHNIQUES:**

### **Rocky Beach:**

- \* Removal of heaviest oil concentrations.
- \* Mechanical cleanup with pumps, vacuum trucks, and skimmers (in shallows nearshore).
- \* Manual cleanup with buckets and scoops, which are dumped into barrels for removal from the site.
- \* Oil attracting sorbents, which are removed in plastic bags.
- \* High pressure washing to push oil back into water where it can be collected with skimmers or sorbents.
- \* Application of chemical dispersants, but only where they can be quickly diluted by water.

### **Cobble/Pebble Beach:**

- \* Same cleanup as Rocky beach- PLUS:
- \* Use of heavy earth-moving equipment to push stones into water for natural cleanup by wave action.
- \* Loading oil stones into mobile incinerator that burns oil and returning the stones to the beach.

### **Sandy Beach:**

- \* Manual collection with scoops, shovels, rakes, etc.
- \* Use of heavy machinery to push oily sand into wave zone for natural cleaning.
- \* Beach cleaning machines, which separate tar balls and clumps of oily sand from the beach.

### **Muddy Shore:**

- \* Mudflats and beaches are very sensitive environments that are easily damaged by people and machinery.
- \* If it is absolutely necessary and on the advice of biologists, and natural resources specialist, low pressure washing with hoses to push oil into open water recovery by skimmers may be carried out.

- \* Oiled plants may be removed if birds are endangered by them.

**Marshes:**

- \* Low pressure flushing. This can be used to flush surface oil to open water where it can be contained in a boom and collected.

\* If birds are threatened, cutting and removing oiled vegetation might be considered, but must be balanced against long term damage.

When possible, it is preferable to allow oil on this type of shoreline to weather naturally, particularly where it has been washed up by the vegetation. It has often been found that activities intended to clean pollution causes more damage than the oil itself.

**ADVANTAGES/DISADVANTAGES OF DIFFERENT CLEANUP STRATEGIES  
MECHANICAL CONTAINMENT – RECOVERY:**

**Basic Strategy:**

Corral as much of the oil as possible and remove it from the water surface where it floats.

**Procedure Employed:**

OSRO(s) deploy floating booms to contain or fence off the oil slick. The oil is then collected with skimmers that remove oil and water from the surface and separate the oil from the water or vacuum hoses that suck up oil from the surface. In many cases the collected oil/water mixture is transferred to specialized storage tanks that further separate the oil from the water. In some cases cleanup crews use absorbents to collect residual oil from the surface.

**Spill Application:**

Spills in calm water, near sensitive areas.

**Advantages:**

- \* It causes least environmental impact.
- \* It prevents oil from ingesting oil.
- \* It prevents the oil from reaching the shoreline.

**Disadvantages:**

- \* Booms must be deployed quickly to contain the oil slick before it spreads. Booms do not do well in rough water.
- \* It requires large numbers of personnel and equipment that may be difficult to get to a spill site quickly.
- \* Recovery rate of oil under the best circumstances rarely exceeds 15%.

**DISPERSANT APPLICATION:**

**Basic Strategy:**

Dispersants are chemical detergents that break the oil into tiny droplets that spread through the water column. This technique dilutes the oil to minimize the toxicity to marine mammals and birds. The smaller droplets are also more easily biodegraded by naturally-occurring micro-organisms. The use of dispersants accelerates the process of physical and chemical breakdown that would occur during natural weathering.

**Procedures Employed:**

Dispersants can be sprayed from aircraft or vessels.

**Spill Applications:**

Spill in turbulent water, way from sensitive habitats

**Advantages:**

- \* It works well in rough waters.
- \* It can be employed effectively on large spills that are beyond the capability of containment and recovery methods.
- \* It makes the oil less sticky, keeping it off rocks, boats, and equipment.

**Disadvantages:**

- \* It must be applied within the first 24 hours to be effective.
- \* Some Dispersants need wave action and therefore, may have limited usefulness in calm waters.

- \* Since the spraying of dispersants require prior approval from governmental authorities, the time limit for the technique to be effective may expire and therefore, most dispersants would not prove effective past 24 hours.

#### **IN-SITU BURNING:**

**Basic Strategy:** Concentrate oil and ignite to burn as much as possible.

**Procedures Employed:**

The oil is concentrated and corralled through the use of booms and ignited by flares, bombs, rockets, or lasers deployed from a helicopter. The fire burns until the fuel runs out or until conditions favorable to combustion change.

**Spill Applications:**

Spills on ice, or on calm, open water, away from populated areas.

**Advantages:**

- \* It is extremely effective, usually burning off 80-98% of the oil from the surface of the water.
- \* It prevents oil from reaching the shoreline.
- \* It prevents oil from mixing into water column, keeping it away from marine life.
- \* It works well in calm water.

**Disadvantages:**

- \* It causes air pollution and thus is not a good technique to employ around populated areas.
- \* To conduct this technique safely and effectively, specialized trained workers are required.
- \* It must be initiated before the oil is broken by wind, waves, or currents.
- \* Because of possible environmental impacts, and safety concerns, governmental authorities often must approve the use of this technique before it can be deployed.
- \* It may be difficult to sustain a burn in very rough or cold water.
- \* It may leave tarry residue that will wash up on the shoreline or sink to the bottom.
- \* The smoke and residues may damage nearby ships, waterfront structures, and shoreline environments.

#### **NATURAL CLEANUP:**

**Basic Strategy:**

Allowing oil break down naturally.

**Procedures Employed:**

If nothing is done, oil will weather naturally by breaking down chemically or physically with turbulent wave action and effects of sunlight. Within 24 hours the most toxic portions of the oil will evaporate, posing less of a threat to wild life. Eventually the oil will break up into smaller droplets that are more easily biograded by naturally occurring microorganisms.

**Spill Applications:**

Spills on open water, away from shorelines; spills on shorelines exposed to significant wave action.

**Disadvantages:**

- \* It can allow oil to reach areas that may experience serious environmental impacts.
- \* It is often difficult to predict how weather, currents, wave action, and sunlight will act on the spilled oil.

#### **CLEANUP ON SHORE:**

Where containment and cleanup from the water could not protect the shore from impact, cleanup of shorelines and wetlands should be divided into several categories to facilitate cleanup. Each type would have agreed-upon cleaning techniques in consultation with the appropriate natural resource trustees.

Resources needed for shoreline cleanup would include large numbers of OSHA trained manual laborers for the labor-intensive cleanup.

Heavy equipment, vacuum trucks, mechanized shore cleaning gear and vast supplies of sorbents would be needed. On certain shorelines, trenching, burning or artificial barriers could be used to reduce the effects of standing oil. As a precaution, heavily oiled areas would be boomed off during shore cleaning to

prevent a recurrent oil slick on the following high tides. Thousands of feet of boom would be needed for these simultaneous shoreline cleaning operations. Staging of the equipment from water may be needed to protect sensitive wetlands.

Transportation of needed resources to remote locations may require off-road vehicles along with other transports, such as small passenger vessels to ferry manpower, air lifts, and deck cargo barges.

Accommodations and meeting facilities for the large number of personnel involved with all aspects of spill response would need to be provided due to the remoteness of the sites. Contracted motor homes and tenting hotel barges would be needed to house the personnel.

Surveys of cleaned areas would be conducted by the USCG incident commander, land managers, and state representatives to determine if cleanup personnel can move on to other areas. The advice of biologists and natural resource specialists would be requested via NOAA.

#### **EXPERIENCE HAS SHOWN THE SHORELINE CLEANUP OPERATIONS OFTEN CAUSE MORE ENVIRONMENTAL DAMAGE THAN IF OIL WERE LEFT ALONE.**

##### **COMPILATION OF DATA**

- \* Spill data
- \* Characteristics of spilled oil
- \* Weather and water conditions/forecast
- \* Oil trajectory information
- \* Surface area of slick
- \* Expected areas of landfill
- \* Concentration of oil mixture in water column
- \* Shoreline protection strategies
- \* Shoreline cleanup strategies
- \* Use of dispersant if accepted by the EPA, USCG OSC
- \* Comparison of the effectiveness or conventional cleanup methods vs. the use of dispersant
- \* Habitats and resources at risk dispersant treated
- \* Endangered/threatened species
- \* Waterfowl use (nesting, migration)
- \* Shell fish spawning
- \* Commercial use (water intakes)
- \* Health hazards

##### **HIGH SENSITIVE AREAS:**

- \* extensive tidal marshes
- \* fringing inter-tidal marshes
- \* freshwater marshes and swamps

##### **MODERATE SENSITIVITY:**

- \* riprap structures exposed tidal flats
- \* coarse grained sand beaches

##### **LOW SENSITIVITY:**

- \* seawall and piers
- \* consolidated shores and wave cut platforms Model for how Group V oils are predicted to behave when spilled. A) The majority of the oil initially floats, behaving like a traditional #6 fuel oil spill. B) The majority of the oil initially does not float; in the presence of currents greater than 0.1 knots, the oil forms small droplets that mix into the water column and disperse with the currents. C) The majority of the oil initially does not float; the oil only sinks and accumulates in depressions on the bottom in the absence of currents. D) The majority of the oil initially floats but eventually sinks after mixing with sand as both are suspended in the water by waves breaking on offshore sand bars or rocky platforms. E) The majority of the oil initially floats, but eventually sinks after the oil strands onshore, picks up sand, is eroded by waves, and forms tar mats at the toe of the beach or in nearshore troughs. Rollers of oil/sand are formed by wave-generated currents

##### **Air Flotation System**

A. Wet Well or surge tank conditioning F. Coagulation Chamber. Polymers are added chemicals may be added here after the control valve to form a more stable

**floc**

**B. Centrifugal Pump introduces air**

**G. Skimming Arm removes solids carried to the**

**C. Retention Tank forces air into solution surface by released bubbles**

**D. Pressure Control Valve H. Skimmings Hopper**

**E. Inlet Tube of floatation cell I. Effluent**

**LIST OF CONTACTS**

**Organization Telephone Contact Person**

AGM Marine Contractors +1-508-477-8801 Joel Peterson  
Benthos Inc. +1-508-563-5511 Doug McGowen  
Cameron Great Lakes +1-207-772-5354 Charles Stone  
Clean Harbors Environmental Services +1-781-849-1800  
Crisafulli Pump Company +1-800-442-7867 Clay Mercier  
EG&G +1-508-563-9317 Bill Shanbum;  
Bill Charbonneau  
Environment Canada +1-613-991-1842  
Environmental Products and Services +1-315-451-6666  
Independent Equipment Company +1-215-752-2246 Joseph  
Industrial Cleanup, Inc. (ICI) +1-504-436-0883 Rusty Johnson  
Marine Pollution Control (MPC) +1-313-849-2333 Walt Putman  
Mineral Management Services +1-703-787-1556 Joe Mullin  
Nalco Chemicals +1-630-305-1000

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QUALIFIED INDIVIDUAL (Primary and Alternate

***5.1 VESSEL'S OPERATORS INFORMATION***

Vessel Operator: OCEANIC RESEARCH SERVICES/SOUTHERN CROSS LLC  
3815 OLD NENANA HWY  
PO BOX 192  
ESTER, AK 99725

**EMERGENCY CONTACT LIST**

**William Kopplin: (907) 378-7938; (907) 479-5426**

**5.2 OIL SPILL RESPONSE ORGANIZATION (OSRO)**

See Appendix

**5.3 LOCAL AGENT**

Varies from voyage to voyage as dictated by the vessel operator/owner/charterer

**5.4 CONTACT NUMBERS FOR SHIP-TO-SHIP TRANSFER & LIGHTERING EQUIPMENT**

This equipment is listed under the Lightering Contractors or Salvage Contractors listed on each COTP Zone.

*5.5 Section removed*

**5.6 EMERGENCY SERVICE AND RESPONSE RESOURCES**

Alaska Clean Seas, Prudhoe Bay, Alaska

**SECTION 6 TRAINING PROCEDURES**

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Integral to any successful oil discharge response preparedness is the proper training of every individual involved, from the person reporting the spill, to the vessel Master, to the Qualified Individual, to the response personnel, to the members of the Spill Management Team. Specific response training requirements for each individual are listed for each position. Training requirements will vary, depending upon the kinds of tasks that are performed and the degree of involvement of each individual in the response. Proper training should not be limited solely to specific training directed at how to respond to an oil spill. Proper training also contains health and safety training, as well as an understanding of how each individual's function fits into the overall response effort.

**6.1 VESSEL PERSONNEL TRAINING**

Vessel personnel shall be assigned responsibilities for spill mitigation consistent with their assigned position and duties associated with day-to-day operation of the vessel. The primary source of training in the performance of the skills required is through on-the-job training (OJT). Crew rating qualifications and officer license requirements, together with specialized safety and fire-fighting training provided by company qualified vessel personnel to carry out their assigned spill mitigation responsibilities. Newly embarked officers are to familiarize themselves as soon as possible about the scope of the *Integrated Vessel Response Plan*. The Owner/Operator shall provide vessel personnel with basic and refresher training on the VRP.

The emphasis of this training shall be in the following areas:

- Notification requirements and procedures.
- Communication system(s) used for the notifications.
- Procedures to mitigate or prevent any discharge or a substantial threat of a discharge resulting from:
  - Operational activities associated with internal or external cargo transfers
  - Grounding or stranding
  - Collision
  - Explosion or fire
  - Hull Failure
  - Excessive list
  - Procedures for use of equipment which may be used to mitigate an oil discharge.
  - Procedures and arrangements for emergency towing.

- Ship salvage procedures, damage stability and hull stress considerations when performing shipboard mitigation measures.
  - Procedures for transferring responsibility for direction of response activities from vessel/facility personnel to the spill management team.
  - Responsibilities and authority of the qualified individual as described in the Intergrated Vessel Response Plan and company response organization.
  - Actions to take, in accordance with designated job responsibilities, in the event of a transfer system leak, tank overflow, or suspected cargo tank or hull leak.
  - Information on the cargoes handled by the vessel or facility; including familiarity with the cargo material safety data sheets, chemical characteristics, special handling procedures, health and safety hazards, spill and fire fighting procedures.

## **6.2 QUALIFIED INDIVIDUAL (QI) TRAINING**

A Qualified Individual and Alternate Qualified Individual(s) are trained on an annual basis in all aspects regarding the proper application and implementation of the Vessel Response Plan. The Qualified Individuals receive the appropriate Spill Management Training.

The QI and Alternate QI(s) are to be familiar with OSHA Hazardous Waste Operations & Emergency Response (HAZWOPER) and must receive the level of training equal to 24 hours oil spill responders. Annual HAZWOPER Refresher Training of 8 hours must be taken. The QI will have adequate knowledge, and sufficient training or experience, to demonstrate competence in the following areas:

- Implementing the Intergrated Vessel Response Plan.
- Resources committed, or that could be potentially committed, during an incident.
- Obtaining and obligating funds to carry out the necessary or directed response activities, and the knowledge of persons or offices to contact.
- Liaison between Vessel Owner/Operator and the federal & state OSC's.
- Ability to assess the need for additional resources, and to make the appropriate notifications (call-outs) and contractual arrangements.

Qualified Individuals have been retained based on their knowledge of the following:

- The Vessel Response Plan
- Access to local information
- Notification procedures
- General shipboard procedures, terms, activities
- U.S. oil spill planning and response systems
  - Predesignated Federal-On-Scene Coordinators
  - National Contingency Plan
  - Regional contingency plans
  - Area contingency plans
  - State authorities
- Oil spill response organization and their operational capabilities
- Procedure to activate/notify OSROs.
- Protection & indemnity insurance
- Legal "issues"
- Public & government relations
- Occupational Safety & Health Administration (OSHA) standards for Emergency Response Operations
- Logistics & finance
- Communications

## **6.3 SPILL MANAGEMENT TEAM (SMT)**

The SMT is modeled after the Incident Command System (ICS) concept. This concept is developed in such a manner so as to enable the structure of the SMT to adapt to a variety of emergencies, expanding and contracting as conditions warrant. A diagram of the Spill Management Team structure is shown in Section 4.

The Spill Management Team members shall receive a 24- or 40-hour OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) training, as appropriate. Certification will be

received where applicable. Additional training, such as implementation of the Vessel Response Plan and Spill Management Team Tabletop Drills will be provided as it applies to the specific functions of each team member.

Each SMT member, assigned a position in the response organization outlined in Section 4 - Shore-based Response Activities (Section 4.6), will be trained in those duties and responsibilities outlined in the designated job assignment. This training will be accomplished through participation in exercises and drills, appropriate resident training courses, attendance at actual spill events, and/or other means as deemed appropriate to ensure and maintain a competent level of expertise in the designated job. In addition, the command staff and all division chiefs shall be thoroughly indoctrinated in the responsibilities of the Unified Command System.

Training of the Spill Management Team will be documented and training records will be maintained for three years.

**6.4 TRAINING RECORDS** Period of Retention

<b>Crew Training</b>	Records to be maintained on board Vessel & Head Office of Company	<b>3 years</b>
<b>Qualified Individual</b>	Records to be maintained in the office of the Qualified Individual	<b>3 years</b>
<b>Spill Management Team</b>	Records to be maintained by the Spill Management Team	<b>3 years</b>
<b>Oil Spill Removal Organization</b>	Records to be maintained by the Oil Spill Removal Organization	<b>3 years</b>

**SECTION 7**

**DRILL PROCEDURES**

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7.3 SHIPBOARD DRILLS.....2

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INTERNAL EXERCISE DOCUMENTATION FORM - Emergency Procedures Exercise.....7

### **7.1 DRILL PROGRAM**

The Drill Program follows compliance to the National Preparedness for Response Exercise Program (PREP) Guidelines. A complete and comprehensive drill schedule is a critical part of a thorough training program. Drills provide a forum to exercise the training that has been received, they validate the procedures and policies contained in the response plan, and they allow for plan modifications when refinements are warranted. Regular drills, involving ship personnel, will ensure rapid and effective implementation of the VRP in the event of an incident. Through a series of *Internal* and *External* exercises, drill program, enhances the preparedness of the vessel's crew, the Spill Management Team and the Qualified Individuals.

### **7.2 INTERNAL AND EXTERNAL EXERCISES**

#### **7.2.1 INTERNAL EXERCISES**

Internal exercises are those that are conducted wholly within the plan holder's organization. While the internal exercises include personnel such as the QI and those affiliated with the plan holder's spill management team, OSRO, they do not usually involve other members of the response community. The internal exercises are designed to examine the various components of the response plan to ensure the plan is adequate to meet the needs of the organization for spill response.

The Internal exercises include:

- Qualified Individual notification exercises
- Emergency procedures exercises for vessels and barges (as applicable)
- Emergency procedures exercises for facilities (optional)
- Spill Management Team tabletop exercises; and
- Equipment deployment exercises

All internal exercises should be self-evaluated\* and self-certified\*  
(\* Please refer to Section 1.6, *Definitions*).

#### **7.2.2 EXTERNAL EXERCISES**

External exercises are exercises that extend beyond the internal focus of the plan holder's organization, and involves other members of the response community, such as USCG and other government agencies, P&I Clubs, Damage Stability Provider, Salvor, etc. The external exercises are designed to examine the response plan and the plan holder's ability to coordinate with the response community to conduct an effective response to a pollution incident.

The External exercises include:

- Area exercises; and
- Government initiated unannounced exercises.

While the government initiated exercises will not usually involve all members of the response community, the involvement of an agency outside of the plan holder's organization places it in the category of an external exercise.

### **7.3 SHIPBOARD DRILLS**

a) QI Notification Drills: For vessels operating regularly in U.S. waters, QI Notification Drills are to be conducted quarterly, prior to entry into the U.S. Exclusive Economic Zone. Drill Notification should preferably be made verbally by telephone, but can also be made via telex, email or fax, and confirmation must be received from the QI to satisfy the requirements of this exercise. Document all drills and maintain records on board for a minimum period of 3 years.

At least once a year, the QI Notification Drill should be conducted during non-business hours

For vessels that seldom enter US waters, Qualified Individual Notification Drills must be conducted no less than 72 hours prior to entry into US Exclusive Economic Zone. However, it is recommended that QI Notification Drills continue to be conducted quarterly in order to maintain familiarity with the procedure and to ensure that all notification information at hand is correct. QI Notification Drills do not need to be conducted within US waters and can be performed in conjunction with other scheduled drills and exercises. Therefore, vessels that trade mainly outside of the USA can and are encouraged to continue to conduct these drills and maintain the relevant records.

b) Emergency Procedure Exercises must be conducted quarterly on board vessels, as a minimum requirement. Drills must simulate emergencies ranging from operational spills to casualties, please refer to Section 3 *Shipboard Spill Mitigation Procedures* for types of emergency procedure drills to be conducted. Appendix C of this Plan contains *Emergency Procedure Checklists* which are provided as a guide only and can be used during exercises and drills. Drills must be documented in the ship's log.

**NOTE:** For vessels, it is the responsibility of the plan holder to ensure that the QI Notification Drills and Emergency Procedures Exercises are being conducted. If more than one vessel is covered under a particular response plan, the plan holder must ensure that each vessel covered under that plan conducts these exercises.

#### **7.4 SHORESIDE DRILLS**

Spill Management Team Tabletop Exercises, are to be conducted annually. Per the PREP guidelines, one or more representatives from each plan holder organization that the spill management team represents, must participate in the exercise. Once in every three-year cycle, one table top drill will include a worst-case discharge (WCD) scenario. Records of these drills are to be kept at the office of the Spill Management Team and the vessel owner/operator.

Upon completion of such exercises, the Spill Management Team shall provide relevant documentation to all plan holders, and each plan holder should take credit for the exercise.

#### **7.5 UNANNOUNCED DRILLS**

An unannounced exercise is where the exercise participants do not have prior knowledge of the exercise, as would be the situation in an actual spill incident. Unannounced exercises can be Internal (initiated by the plan holder or vessel) or Government-Initiated. The requirement for the annual unannounced exercise is necessary to maintain the level of preparedness necessary to effectively respond to a spill.

##### **7.5.1 INTERNAL UNANNOUNCED EXERCISES**

Periodic unannounced emergency procedure drills are recommended to be conducted by the plan holder to evaluate the readiness of the in-house emergency response team, or the vessel Master in order to evaluate the crew's preparedness and results of training.

Annually, each plan holder should ensure that one of the following exercises is conducted unannounced:

- Emergency procedures exercise for vessels and barges (as applicable)
- Emergency procedures exercise for facilities (optional)
- Spill Management Team tabletop exercise; or
- Equipment deployment exercise

Records of such exercises are to be appropriately logged and maintained for a period of no less than three (3) years as stated in Section 7.9

##### **7.5.2 GOVERNMENT-INITIATED UNANNOUNCED EXERCISES**

U.S. Coast Guard Captain of the Port may request a vessel and/or its Owner/Operator to participate in an unannounced drill at any time. A plan holder requested to participate in a government-initiated unannounced exercise is required to participate as directed unless specific conditions exist that may result in a safety hazards. The cost of the unannounced exercise will be borne by the response plan holder

The vessel shall be required to implement the VRP, make the required notifications and take proper action as necessary. The Qualified Individual shall activate the resources (personnel and equipment) to the extent required by the U.S. Coast Guard Captain of the Port.

After successful participation in an unannounced exercise directed by a COTP, the plan holder will not be required to participate in another unannounced exercise for at least three (3) years from the date of the exercise provided that the drill protocols and method of evaluation are adequate. The plan holder must maintain documentation of such participation. [references: 33 CFR § 155.1060 (c); PREP guidelines]

**NOTE:** Response to an actual spill should be taken as credit for the unannounced exercise requirement, if the response was evaluated.

#### **7.6 AREA EXERCISES**

Area Exercises will be scheduled, initiated and evaluated on a triennial basis by the Federal Government, States, and Industry. These exercises are designed to ensure the effectiveness and coordination of all plan holders who have responsibility in a particular area (COTP Zone). Vessels in the area could be required to participate.

#### **7.7 EQUIPMENT DEPLOYMENT EXERCISES – CONTRACTED RESOURCES (OIL SPILL REMOVAL ORGANIZATIONS)**

The Oil Spill Removal Organizations (OSRO) listed in this Plan who are under contract with the Company shall conduct annual equipment deployment exercises in accordance with the requirements outlined in the PREP guidelines and shall make available the certification of compliance with this drill requirement.

As stated in the PREP guidelines, the Equipment Deployment Exercise applies to all plan holders, and it is the responsibility of the plan holder to ensure that this requirement is met. As such, plan holders who may not have received documentation from their contracted OSRO within a calendar year to demonstrate compliance with the equipment deployment exercise requirement, are encouraged to contact their OSRO and request this documentation.

#### **7.8 TRIENNIAL EXERCISE OF THE ENTIRE RESPONSE PLAN**

Within a three (3) year cycle, all elements of this Plan shall be exercised in a drill, or series of drills, involving the vessel Owner/Operator and the QI. To satisfy the requirement of the triennial exercise of the entire response plan, it is not necessary to exercise the entire plan all at one time. The plan may be exercised in segments over a period of three (3) years, as long as each component of the plan is exercised at least once within the three-year period.

Documentation of such drills shall be established and furnished to the Vessel Owner/Operator for their records.

#### **7.9 CREDIT FOR SPILL RESPONSE**

Plan holders may take credit for internal exercises conducted in response to actual spills. The spill response must be evaluated. The plan holder must determine which exercises were completed in the spill response. This determination should be based on whether the response effort would meet the objectives of the exercise as listed in the PREP guidelines. The plan holder must document the exercises completed. The NSCC is responsible for authorizing credit for area exercises, based on the recommendations of the On-Scene Coordinator. Credit should be given to a plan holder for participation in an area exercise if the following circumstances exist:

1. the response plan was utilized in an actual spill response;
2. the response involved the entire response community;
3. the objectives of the area exercise were met as outlined in the PREP guidelines;
4. the response was evaluated; and
5. the spill response was properly documented and certified. Note that actual spills must involve, as a minimum, deployment of worst-case discharge tier 1 capabilities to be eligible for this credit.

### 7.9.1 PROPER DOCUMENTATION FOR SELF-CERTIFICATION

Proper documentation for self-certification should include, as a minimum, the following information:

- The type of exercise
- Date and time of the exercise
- A description of the exercise
- The objectives met in the exercise
- The components of the response plan exercised
- Lessons learned

This documentation must be in writing and signed by an individual empowered by the plan holder organization. As a general rule, exercise records should be completed within 30 – 60 days of the exercise, although this may vary depending on exercise complexity.

### 7.10 DRILL RECORDS

The records of drills, shall be maintained for a period of <u>three (3) years</u> as follows: On-board drills:	Logged on board
Shoreside drills:	Spill Management Team Offices with a copy sent to Vessel Owner/Operator
Unannounced Drills:	Logged onboard and records maintained in the offices of the vessel Owner/Operator and the <i>Qualified Individual</i>
Area Exercises:	In the offices of the vessel owner/operator and the <i>Qualified Individual</i>
Contracted Resources and Certification Letter (Oil Spill Removal Organization):	Offices of OSRO's and in the vessel owner/operator
Entire Plan Drill:	In the offices of the vessel owner/operator and the <i>Qualified Individual</i>
An annual (calendar year) summary of the drills conducted shall be sent to the offices of the owner/operator and the Plan Manager.	

**SECTION 8 PLAN REVIEW AND UPDATE PROCEDURES Section Page**

**8.1 PERIODIC UPDATES.....2**

**8.2 POST-RESPONSE REVIEWS.....2**

**8.1 PERIODIC UPDATES**

The Vessel Owner/Operator and/or the Plan Manager will review this *Core Integrated Vessel Response Plan* annually in conjunction with post-drill evaluations held after the annual table top drill or 30 days before the anniversary of Plan Submission.

All individual *Integrated Vessel Response Plan* changes shall be forwarded to the Plan Manager. All changes and updates will be made according to the following procedures:

- a) Note all reviews or changes on the 'Record of Review and Changes' (Section 1).
- b) The Plan Manager shall make and distribute the Plan changes/revisions, to the Plan Holder.
- c) Plan Holders will insert revised page(s).

**8.2 POST-RESPONSE REVIEWS**

Each time this plan is implemented in response to a spill the vessel Master, the *Qualified individual*, the Spill Management Team Incident Commander, and the Owner's Agent, as applicable, shall review and record the effectiveness of the *Integrated Vessel Response Plan*. Errors, omissions or suggested changes shall be forwarded to the Plan manager who shall review all proposed changes and promulgate acceptable changes to the recorded possessors of this Plan.

## **WESTERN ALASKA**

### **PRUDHOE BAY**

#### **COTP ZONE**

**Required Notifications:**

#### **FEDERAL**

**USCG National Response Center 24 hours +1-800-424-8802  
24 hours +1-202-267-1322  
USCG Sector Anchorage Primary +1-907-271-6700  
Emergency +1-907-229-8203  
Fax +1-907-271-6751  
Environmental Protection Agency Region X 24 hours +1-206-553-1263  
Fax +1-206-553-0124  
Local EPA Office – Anchorage Day +1-907-271-5083  
Fax +1-907-271-5083  
UnAlaska MSD (Dutch Harbor) 24 hours +1-907-581-3466**

#### **STATE**

**Alaska Department of Environmental Conservation AOH +1-800-478-9300  
(ADEC) Fax +1-907-269-7648  
Central (Anchorage) Day +1-907-269-3063  
Fax +1-907-269-7648  
Northern (Fairbanks) Day +1-907-451-2121  
Fax +1-907-451-2362  
Southeast (Juneau) Day +1-907-465-5340  
Fax +1-907-465-2237**

**QUALIFIED INDIVIDUAL (Primary and Alternate):**

**PRIMARY RESPONDERS:  
Contracted OSRO as per Appendix**

#### **WESTERN ALASKA**

### **PRUDHOE BAY**

#### **COTP ZONE**

**Oil Spill Removal Organizations Engaged by Contract or Other Approved Means**

**Spill Scenario OSRO  
Average Most Probable Discharge (AMPD)**

**Alaska Chadux  
(coverage includes Aleutian Islands)  
Tel: +1-907-348-2365  
Fax: +1-907-348-2330  
Maximum Most Probably Discharge (MMPD)**

**Alaska Chadux  
(coverage includes Aleutian Islands)  
Tel: +1-907-348-2365  
Fax: +1-907-348-2330  
Worst Case Discharge (WCD)**

**Alaska Chadux**  
**(coverage includes Aleutian Islands)**  
**Tel: +1-907-348-2365**  
**Fax: +1-907-348-2330**

**ALEUTIAN ISLANDS COVERAGE**

**Prior to carrying out any vessel operations in the Aleutian Islands, Plan Holder will apply for an approval from the COTP Anchorage, AK.**

**ADDITIONAL RESPONDERS**

**The following oil spill response organizations have various levels of response capabilities and are available in the COTP Zone to provide additional resources when the planning volume exceeds the cap per 33 CFR 155.1050 or as required. Cascading and multiple resources may be required in order to provide adequate protection for spills greater than the AMPD up through and including a worst case discharge.**

**RESPONDER TELEPHONE**

**SEAPRO +1-907-225-7002 Fax: +1-907-247-1117**  
**Alaska Clean Seas +1-907-659-2405**

# APPENDIX

## EMERGENCY PROCEDURES CHECKLISTS AND FORMS

These Sample Checklists And Forms Are Provided For Guidance Only  
But May Be Used During Training And Exercises As An Aid Should The  
Plan Holder So Choose.

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### USCG/IMO SAMPLE MESSAGE FORMAT FOR FOLLOW-UP NOTIFICATION

DATE/TIME (GMT): (Of this Message)

TO:

FROM: (ship name, call sign, IMO number, flag, MMSI No; Inmarsat No.; Master's name)

SUBJECT: Follow-Up Notification Report No.\_\_\_\_

AAA Additional Details on the Type(s) of Cargo On-Board

BBB Additional Details on the Condition of the Vessel

CCC Additional Details on the Ability to Transfer Cargo, Ballast, Fuel

DDD Additional Details on the Quantity, Extent and Movement of the Pollution and Whether the Discharge is Continuing.

EEE Any Changes in the On-Scene Weather or Sea Conditions; and

FFF Actions being taken with Regard to the Discharge and the Movement of the Ship.

GGG Any Change in the Vessel's Position (LAT/LONG).

HHH Time of Next Follow-Up Report, or if this Is Final Report.

## **ACTIONS TO CONTROL OPERATIONAL SPILLS**

### **Transfer System Discharge - Action To Be Taken**

**Secure cargo and/or bunkering operations**  
**Secure isolation valves**  
**Verify scuppers secured**  
**Notify transfer facility/vessel if applicable**  
**Report casualty**  
**Alert vessel's crew**   
**Implement VRP**  
**Initiate oil spill removal and verify containment**  
**Survey extent of incident**  
**Coordinate shore side cleanup support resources**  
**Ascertain cause of casualty**  
**Determine corrective action**   
**Advise Company by emergency phone followed by written notification**

### **Hull Leakage - Action To Be Taken**

**Secure isolation valves**  
**Secure pumping (if applicable)**  
**Notify transfer facility/vessel if applicable**  
**Alert vessel's crew**   
**Implement VRP as applicable**  
**Implement oil spill removal and verify containment**  
**Determine location and survey extent of casualty**  
**Determine rate flow loss, structural stability& stress conditions**  
**Implement stability and salvage plans**  
**Advise Company by emergency phone followed by written notification**  
**Coordinate shore side cleanup support resources Action**

### **Tank Overflow - Action To Be Taken**

**Secure product flow**   
**Verify scuppers secured**  
**Notify transfer facility/vessel as applicable**  
**Alert vessel's crew**   
**Implement VRP as applicable**  
**Notify vessels in area**   
**Initiate oil spill removal and verify containment**  
**Survey extent of incident**  
**Conduct perimeter survey**  
**Advise Company by emergency phone followed by written notification**  
**Coordinate shore side cleanup support resources**  
**Ascertain cause of casualty**  
**Determine corrective action**

## **Hose Burst Pipe/Pipework Fracture/Oil Overflow**

### **Action To Be Taken**

**Sound General Alarm**   
**If in port - advise terminal**   
**Stop any cargo operations -**  
**Activate emergency shut down**   
**Muster crew – conduct headcount of personnel.**  
**If at sea - advise nearest coast state and alert vessels in vicinity**  
**Advise Company by emergency phone followed by written notification**  
**If at sea - have ready at radio details of ship's position and any other information for a distress/urgency safety message**  
**Prohibit all smoking**   
**Contain liquid on deck**   
**Do not direct water jet on any liquid pool**  
**Send Follow Up Notification to Company**

### **Major Flooding - Action To Be Taken**

**Sound general alarm**   
**Close watertight doors**  
**Consider changes in course and speed to reduce level of water**  
**Attempt to remove flooding effect by pumping out affected space if feasible**  
**Have ready at position of radio, details of ship's position and any other relevant information.**  
**Determine extent of flooding, exercising caution as some spaces may be under pressure due to flooding.**  
**Advise nearest coast state using "standard reporting format".**  
**Advise Company by emergency phone followed by written notification**  
**Determine possible final trim/list and stability due to flooding to reduce level of flooding.**

### **Grounding/Stranding/Wrecked - Action To Be Taken**

**Report casualty**   
**Alert vessel's crew and other vessels in vicinity**  
**Ascertain vessel's position**   
**Implement VRP**  
**Account for and ensure the safety of the vessel's crew**  
**Initiate oil spill removal and verify containment, if applicable**  
**Isolate pipeline valves**   
**Sound internal spaces and initiate structural damage survey**  
**Advise Company by emergency phone followed by written notification**  
**Transfer cargo internally and/or consider lightering assistance**  
**Determine need for commercial salvage assistance**  
**Monitor weather, sea conditions and tidal effects on vessel**   
**Stop main engine**

## **Fire/Explosion**

### **Action To Be Taken**

**Report casualty**

**Alert vessel's crew – account for and ensure their safety**

**Implement VRP as applicable**

**Determine location and extent of casualty**

**Initiate damage control and fire-fighting measures**

**Determine vessel's structural integrity (damage stability and hull stress)**

**Advise Company by emergency phone followed by written notification.**

**Determine need for commercial salvage assistance or lightering assistance**

**Ascertain cause of casualty**

### **Hull Failure - Action To Be Taken**

**Report casualty**

**Alert vessel's crew – account for and ensure their safety**

**Implement as applicable**

**Determine location and extent of casualty**

**Initiate damage control measures**

**Advise Company by emergency phone followed by written notification**

**Determine need for commercial salvage assistance**

**Initiate oil spill removal and verify containment**

**Coordinate shore side cleanup support, if applicable Ascertain cause of casualty**

**Determine corrective action**

### **Decontamination of Personnel - Action To Be Taken**

**Remove affected crew member to safe area.**

**Commence- decontamination procedures as per MSDS listing for hazardous materials**

**Seek medical advice from nearest Coast Station or land crew member to nearest shore medical facility.**

**Advise Company and make required log entries.**

### **Disposal of Removed Oil and Clean-up Materials**

#### **Action To Be Taken**

**All relevant log entries to be made concerning the incident**

**Arrange for disposal in accordance with vessel's Garbage Management Plan**

**Crew handling disposal to wear protective gear**

**Document quantity of disposal material as per Garbage Management Plan.**

## **ATTACHMENT 4**





## Fluid Transfer Procedure

Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-01682-2

<b>Authority:</b>	North Slope Environmental TL	<b>Custodian:</b>	Spill Prevention Compliance Advisor
<b>Scope:</b>	BPXA	<b>Document Administrator:</b>	AK, HSSEE Reg. Env. Doc. Admin.
<b>Issue Date:</b>	December 14, 2001	<b>Issuing Dept:</b>	RCE
<b>Revision Date:</b>	February 11, 2013	<b>Control Tier:</b>	2 – BPXA
<b>Next Review Date:</b>	February 11, 2016	<b>OMS:</b>	3.6, Environment; 7.1, Regulatory Compliance

### 1.0 Purpose/Scope

This procedure provides requirements for fluid transfers in order to help prevent spills. The procedure is mandatory and applies to all contractors and BPXA personnel actively involved in transferring fluids on or at BPXA leases and facilities.

### 2.0 Definitions

- **Receiver** – The person/operation receiving fluids such as a tanker/vac truck driver or the operator of the tank being filled.
- **Off-loader** – The person/operation relinquishing fluids such as a tanker/vac truck driver or the operator of the tank being offloaded.
- **Fluid Transfer Lead** – May be either the Receiver or the Off-loader; it is the person most familiar with the fluid and the area where the transfer will occur.
- **Closed System** – Includes stationary tanks, vessels, sumps, pumps, meters, gauges, etc., and the connected hard-piping. Closed systems do not include portable or temporary tanks with flexible hosing and/or temporary secondary containment.
- **Ullage** - The headspace or unfilled space in a tank or vessel. The tank ullage must be measured or calculated prior to receiving fluids.
- **Hydrocarbon Fluids (i.e., 'oil')** – Fluids containing any amount of hydrocarbon ('oil'), including produced water, wash-waters, and oil-based chemicals. Examples of oil and non-oils are listed in the Tier 2 procedure 'Compliance with Oil Spill Prevention Regulations' (UPS-US-AK-ALL-ALL-HSE-DOC-01838-2). Contact your Environmental Advisor or the Spill Prevention Compliance Advisor (Eppie Hogan, 564-5296) if you have questions about 'oils/non-oils'.
- **Overfill Protection Device** – High liquid level alarm, high liquid level cut-off mechanism, cut-off type nozzle, audible air vent, direct vision gauge (e.g., sight glass), or monitored liquid level indicator.

### 3.0 General Requirements

Except for the exemptions listed below, this procedure must be followed during fluid transfers.

**Exemptions:**

- Vehicles fueled at dedicated fueling stations or by the field fueler.
- De-watering of oil/sheen-free well cellars, reserve pits, and ponded water in secondary containments.
- Any fresh/potable water transfers and seawater transfers in a 'seawater' environment (i.e., Endicott, MPU F Pad, Niakuk, Point Mac, Northstar, STP).
- Pumping fluids within a 'Closed System' (see definition in Section 2.0).

Fluid transfers by vacuum trucks, including domestic wastewater trucks and supersuckers are not exempt from this procedure.

**Fluid Off-loaders and Receivers must use a fluid transfer checklist.** An example checklist outlining the steps to follow before, during, and after a fluid transfer is included as an attachment to this procedure. The checklist may be modified to fit the user's specific needs.

NOTE: A fluid transfer checklist must be followed, but unless otherwise required by the facility operator (e.g., CIC), hardcopy records of completed transfers do not need to be maintained. One suggestion is to laminate the example checklist provided at the end of this procedure and keep it on-hand.

**4.0 Key Responsibilities**

Responsibilities for Receivers, Off-loaders and Fluid Transfer Leads are outlined in detail in the following sections.

Supervisors of personnel performing fluid transfers are responsible for ensuring their personnel are trained on this procedure and understand their responsibilities. Supervisors also are responsible for performing periodic field observations.

BPXA Environmental Advisors perform annual compliance reviews of select fluid transfers.

**5.0 Procedure**

While every transfer requires an Off-loader and a Receiver, some fluid transfer may need more intensive monitoring and oversight than others.

**By agreement between BPXA and the Alaska Department of Environmental Conservation (ADEC), transfers of hydrocarbon ('oil')-containing fluids to tanks greater than 10,000 gallons that are not equipped with an overfill protection device (see definition in Section 2.0) require an Off-loader and Receiver ('two-persons') to be present during the entire transfer. The Receiver is responsible for continuously monitoring the fluid level of the receiving tank. THERE ARE NO EXCEPTIONS.**

## 5.1 Prior to Transfer

Before a fluid transfer begins, the Receiver and Off-loader must communicate face-to-face or via radio. Radio is acceptable for routine/regular transfers while a face-to-face meeting is required for unusual or uncommon transfers. The Fluid Transfer Lead is responsible for initiating this discussion and addressing the responsibilities of each participant. For jobs requiring multiple tank truck loads to complete a fluid transfer, the pre-job meeting is only required for the first load.

### The Fluid Transfer Lead will:

- ✓ Identify and evaluate hazards posed by other activities in the immediate area, and determine if the fluid transfer can be performed safely.
- ✓ Ensure all participants know the emergency shut-off procedures and how to stop a transfer in case of an alarm.
- ✓ Ensure the fluid truck driver knows the correct tank and connection location.

### The Receiver will:

- ✓ Confirm that the receiving tank has adequate capacity to receive the fluid.
- ✓ Confirm fluid volume brought/available from Off-loader.
- ✓ Verify the Off-loader is transferring the correct fluid to the correct tank.
- ✓ Ensure spill response materials (sorbents, shovels, bags, etc.) are readily available.

### The Off-loader will:

- ✓ Confirm the receiver (tank) has adequate capacity to receive the fluid and verify the volume of fluid to be transferred.
- ✓ Verify the fluid is compatible with tank.
- ✓ Place liners at inlet and outlet points, hose/pipe joints, and other critical transfer components that are outside of containment.
- ✓ Ensure valves in the transfer system are in the correct position.
- ✓ Inspect valves, piping and hoses for damage, defects, and leaks.
- ✓ Check that manifolds and valves not in use are blind-flanged or capped.
- ✓ Ensure the transfer equipment (e.g. hoses) is rated for the transfer pressure.
- ✓ Confirm grounding straps are connected.
- ✓ Verify the lowermost drain and outlets of the truck are not leaking.
- ✓ For Tiger tanks, verify that the demister has been drained, and the sump and vent bucket are empty.

Note: For chemical transfers where CIC is both the Off-loader and Receiver: the pre-job communication must be done face-to-face; the Off-loader and Receiver must verify the facility, tank ID, chemical product, and fill point; and a fluid transfer checklist must be completed.

## 5.2 During Transfer

### Scenario A. Truck to tank, where truck capacity is greater than the tank capacity (Risk of overfill if tank ullage is less than fluid on board truck)

1. The Receiver will monitor the tank's fluid level. Flow rate will be reduced at the beginning of the transfer until each person is satisfied there are no problems.
2. The Off-loader will monitor the connections, valves, flanges and other locations where leaks are most likely to occur and be in position to immediately stop the transfer if necessary.

Note: If the transfer is occurring to a non-hydrocarbon (non-oil) tank, then the area operator may function as both the Off-loader and Receiver.

### Scenario B. Truck to tank, where tank capacity is greater than the truck capacity (Risk of overfill eliminated when tank ullage is greater than truck capacity)

Unless it is a chemical transfer by CIC, the receiving tank level does not require constant monitoring.

1. The Receiver will approve the transfer with instructions to the Off-loader to start and end the transfer using a reduced flow rate. The Receiver will be present at the start of transfers for uncommon or unusual transfers.
2. The Off-loader will inspect and monitor connections, hoses, valves, flanges and anywhere that leaks are most likely to occur, and notify the Receiver when the transfer is complete.

### Scenario C. Stationary Tank to a Truck

1. The Receiver (i.e., truck driver) will:
  - ✓ Approve the transfer with instructions to the Off-loader to start the transfer at a reduced rate flow rate and stop the transfer if there are problems/issues.
  - ✓ Inspect and monitor connections, hoses, valves, flanges and anywhere that leaks are most likely to occur.
2. The Off-loader will initiate the transfer, using a reduced flow rate at the beginning and end of the transfer.

Note: Except for chemical transfers conducted by CIC personnel, one person may serve as both Receiver and Off-loader if the fluid transfer occurs within secondary containment, and the loading area has an emergency shut-off within immediate reach.

### Scenario D. Temporary Tank to a Permanent Tank, Sump, or Vessel

The area operator may function as both the Off-loader and Receiver

1. Inspect and monitor the connections, hoses, valves, flanges and anywhere that leaks are most likely to occur.
2. Periodically check that the transfer is proceeding properly.
3. If transfer pumps are variable rate, reduce the flow at the end of the transfer and/or when receiving tank or container is approaching the target fill level.

### **Scenario E. Fluid Transfers Circulated Downhole (well service activities excluding activities contained within the confines of a drilling or workover rig)**

1. The Off-loader will:

- ✓ Monitor the connections, valves, flanges, and anywhere that leaks are most likely to occur.
- ✓ Look for damage or defects in hoses.
- ✓ If fluids are going to a bleed trailer, truck, Tiger tank, or other temporary tank, confirm that the receiving trailer, truck or tank has adequate capacity to receive the fluid and monitor the fluid level throughout the transfer.

Note: Be aware that the ADEC 'two-person' rule for oil transfers may apply. See Section 5.0.

### **5.3 After Transfer**

1. The Off-loader and Receiver demob the transfer operation following the steps below.

- ✓ Drain and purge hoses before disconnecting.
- ✓ Close valves, cap ends, and perform disconnects over drip pans or liners.
- ✓ Clean liners with absorbent material and manage as oily waste.
- ✓ Check the area for spills and report spills immediately.
- ✓ Verify the lowermost drain and outlets of the truck are not leaking.

NOTE: For chemical transfers where CIC is both the Off-loader and Receiver, a checklist must be completed and both the Off-loader and Receiver must sign the form.

### **6.0 Records Retention**

- Fluid transfer records may be required by facility/operation

### **7.0 Key Documents/Tools/References**

- Fluid Transfer Checklist (see attachment for an example)
- Tier 2 procedure 'Compliance with Oil Spill Prevention Regulations' (UPS-US-AK-ALL-ALL-HSE-DOC-01838-2)
- Fluid Transfer Guidelines as outlined in the 'North Slope Environmental Field Handbook' (UPS-US-AK-ALL-ALL-HSE-DOC-00060-2)
- Surface Liner/Drip Pan Use Procedure (UPS-US-AK-ALL-ALL-HSE-DOC-00046-2)

## Revision Log

Revision Date	Authority	Custodian	Revision Details
December 14, 2001	George Snodgrass	Brad Chastain	Initial Version
January 24, 2002	George Snodgrass	Brad Chastain	Revision to clarify exemptions, one-person transfer directions.
February 29, 2004	Stan Gates	Kymber Dixon	Administrative Change. Authority changed due to reorganization.
January 15, 2006	Len Seymour	Mike McDaniel / John Booth	Triennial review
September 27, 2007	Len Seymour	Mike McDaniel / John Booth	Replaced reference to ASA with SOC (S.Kane).
September 1, 2009	Len Seymour	Mike McDaniel / Chuck Wheat	Revision to clarify responsibilities, remove substitution of unit work permit for fluid transfer procedure, better define "closed system," and changing checklist from a fillable form to a reference format; added changes from ACT reviews.
February 11, 2013	Tom Barrett	Eppie Hogan	Revision includes change of Authority and Custodian roles; removed table listing 'oils / non-oils'; added reference to Tier 2 spill prevention procedure; eliminated or combined redundant requirements; clarified that the use of the fluid transfer checklist is mandatory, but recordkeeping is optional. AMOC-All Alaska-1237

# EXAMPLE

## Fluid Transfer Checklist

### **Before Transfer**

Pre-job meeting between Receiver and Off-loader. For common, routine transfers with nothing new or unusual, this may be done via radio. Otherwise, a face-to-face meeting is required. If receiving tank capacity is less than the delivery truck fluid volume, then Receiver must be present throughout transfer. For multiple-load transfers, only one pre-job discussion is required if communication and logistics for all loads is addressed.

### **Fluid Transfer Lead**

1. Evaluate hazards from other activities in the area.
2. Inform other participant in the transfer of location, appearance, and/or sound of high level alarms.
3. Ensure Fluid Truck Driver knows correct tank and connection location.

### **Receiver**

1. Confirm the receiving tank has adequate capacity (calculate ullage).
2. Verify that the fluid is correct (right fluid, right concentration, no unexpected additives or contaminants) and paperwork identifies correct receiving tank.
3. Have adequate spill response materials (sorbents, shovels, visqueen, etc.) at hand.
4. Monitor the liquid level in fuel tanks without overfill protection devices.

### **Off-loader** (or truck driver if transferring to truck tank)

1. Place adequately sized liners at connections & critical transfer equipment.
2. Verify tank ullage can accommodate delivery volume.
3. Check condition of transfer equipment:
  - ✓ Valves are in correct position
  - ✓ Piping and hoses in good operating condition
  - ✓ Unused manifolds and valves blinded or capped
  - ✓ Equipment in good condition, correct pressure ratings
  - ✓ Grounding straps installed
  - ✓ Connections properly installed, and tightened or wired
  - ✓ Gaskets, fittings, and hatch and flange bolts tight
  - ✓ Lowermost drain and outlets of truck's oily fluid tank not leaking
  - ✓ Tiger tank demister drained, sump/vent bucket empty
3. Check facility, tank ID, product on tank label against delivery ticket and verify fill point.
4. Tank Truck Loading Areas: confirm secondary containment > largest truck compartment.

Establish communication method (hand signal, radio) and test.

Receiver & Off-loader must both know emergency shut off procedure & both able to stop the transfer.

## ***During Transfer***

### **Truck to receiving tank with less capacity than volume of fluid on truck:**

#### **Receiver**

1. Present throughout transfer. Low flow at start and monitor level throughout transfer
2. Reduce flow at end of transfer and direct Off-loader to stop when target level is reached

#### **Off-loader**

1. Follow the Receiver's direction to start and stop transfer, and alter flow rate.
2. Monitor connections, valves, hoses and flanges for leaks, and stop transfer if a leak occurs.

### **Truck to receiving tank with more capacity than volume of fluid on truck**

#### **Receiver**

1. Approve Off-loader to start transfer, and use reduced flow at start.
2. Be present at start for uncommon transfers or changes to personnel, equipment, etc.

#### **Off-loader**

1. Follow Receiver's direction and notify them of problems, or if something unexpected occurs.
2. Monitor connections, valves, flanges and hoses and stop transfer if a leak occurs.
3. Notify Receiver when transfer is complete.

### **Stationary tank to a truck**

#### **Receiver (truck driver)**

1. Follow Off-loader's direction. Stop and radio Off-loader if there are problems, or something unexpected occurs.
2. Monitor connections, valves, and flanges for leaks, and stop transfer if a leak occurs.

#### **Off-loader**

1. Initiate transfer using reduced flow at start.

### **Temporary tank to permanent tank or vessel, or permanent tank, vessel or sump to temporary tank**

1. Area operator may function as both Off-loader and Receiver
2. If pumping rate is adjustable, start transfer at low flow until confirm there are no problems.
3. Monitor connections, valves, hoses and flanges for leaks, and stop transfer if a leak occurs.
4. Throughout transfer, routinely check that transfer is proceeding with no problems.

### **Circulated Downhole (includes well service activities involving portable or temporary tanks, excludes activities contained within drilling and workover rigs)**

1. Monitor connections, valves, and flanges for leaks, be prepared to stop transfer if leaks occurs.
2. If fluids are going to bleed trailer, truck, or tank, monitor fluid level in receiving tank.

## ***After Transfer***

### **Off-loader and Receiver**

1. Drain and purge hoses before disconnecting.
2. Close valves, cap ends, and perform disconnects over drip pans or liners.
3. Clean drip pans or liners with absorbent and bag as oily waste
4. check area for spills, and report all spills immediately

## **ATTACHMENT 5**





## Polar Bear and Walrus Interaction Plan for BPXA Areas of Operation

Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-00495-2

<b>Authority:</b>	Anchorage Environmental TL	<b>Custodian:</b>	Wildlife Compliance Advisor
<b>Scope:</b>	BPXA	<b>Document Administrator:</b>	ANC DK Administrator
<b>Issue Date:</b>	May 2, 2002	<b>Issuing Dept:</b>	S&OR
<b>Revision Date:</b>	February 1, 2013	<b>Control Tier:</b>	2-BPXA
<b>Next Review Date:</b>	September 27, 2014	<b>OMS Element:</b>	7.1, Regulatory Compliance

### Purpose

The purpose of this Polar Bear and Walrus Interaction Plan is to establish processes for managing human-polar bear and walrus interaction within BP Exploration (Alaska) Inc.'s (BPXA's) operating fields on the North Slope. The occurrence of walrus in BPXA operating areas is rare; therefore this plan focuses mainly on Polar Bear interaction guidance. The primary objective of this plan is to assure that impacts to bears and walrus and to human safety are minimized during oil field activities. It includes methods for prompt communication of bear and walrus presence in the field so that appropriate avoidance or active deterrence measures (for polar bears) by appropriate personnel may be taken.

BPXA created this Polar Bear and Walrus Interaction Plan in order to comply with the terms of U.S. Fish and Wildlife Service regulations for obtaining a Letters of Authorization (LOA) for the incidental take of polar bears and walrus and intentional take of polar bears for all BPXA operated fields in Alaska. In accordance with Endangered Species Act (ESA) Section 7, issuance of the current LOA and compliance with this document fulfill the requirement for Tier 2 Consultation of the Programmatic Biological Opinion for activities in BPXA operated fields.

### BPXA's General Polar Bear Policies for Oilfield Workers

BPXA's Polar Bear and Walrus Interaction Plan is designed to minimize human/polar bear and walrus interactions, to ensure the safety of all personnel and mitigate any potential impacts to polar bear or walrus well-being or survival. The following list is a quick reference to BPXA's general interaction plan policies. Those working in polar bear or walrus habitat must be familiar with issues associated with polar bears and working safely in bear country. Personnel working in polar bear habitat must abide by the following:

- **Be aware of polar bear activity in your work area.** When Security becomes aware of a polar bear, they will notify permitting authorities and group supervisors of the presence of the bear in the area. Radio transmission may also be used to notify workers in the vicinity. If you are starting work outside in an area with the potential for polar bears, make sure you discuss with the individual issuing permits how the presence of polar bears will be communicated to you and your crew.
- **Check your work area before leaving the safety of a vehicle or building.** If a polar bear was recently sighted in or around your work area or operating unit, take additional precautions (e.g., posting a bear guard) to look for polar bears while working.
- **Handle food and dispose of food waste properly** so that you do not intentionally or unintentionally feed bears or other wildlife. Do not leave food or food waste outside. Never leave food or food waste in the bed of a truck. Never leave food or food waste inside an unattended vehicle for extended periods of time. Dispose of food and food waste in bear-proof dumpsters.
- **Do not approach, move towards or stop to photograph or record video of a polar bear or maternal polar bear den.** Photographing or videoing a polar bear or maternal polar bear den is authorized only for

those persons needing to document bear condition, behavior, and/or location for regulatory or scientific purposes. Unless authorized, anyone who deliberately stops to observe or photograph, or approaches a polar bear puts themselves and others in danger, and could incur severe penalties, up to and including termination.

- **Immediately report all polar bear sightings and/or interactions and all known or suspected maternal polar bear dens or bears associated with a maternal den to security or other designated personnel.** If a bear or den is sighted, move to a safe location and immediately notify Security. Assist Security if necessary in completing a Polar Bear Sighting Report. Also notify the on-site supervisor as soon as a bear is seen.
- **Supervisors shall notify other workers and work groups** (including other contractors) of the presence of recently sighted polar bears as necessary via radio, alarms and other methods, or via security.
- **Do not take any action to deter a polar bear's activities;** only designated and trained personnel are authorized to take any action to influence polar bear activities (i.e., haze).
- **BPXA security personnel (or ACS personnel at Northstar and Badami) are required to report all polar bear sightings and interactions to the USFWS within 24 hours.** All instances involving harassment activities are reported as soon as possible and not later than 24 hours after the occurrence.
- **BPXA security personnel will notify the USFWS of known or suspected maternal dens** or bears associated with maternal dens as soon as practicable but no longer than **12 hours** after discovery.

## Background

### Polar Bear Biology

Polar bears can be found anywhere on the North Slope; however, they are concentrated near the coast and are most frequently sighted near facilities, roads and pads along the shoreline (particularly at Endicott, Liberty SDI, West Dock, Northstar and Milne Point). Both single animals and females with cubs may be sighted. Although polar bears are encountered throughout the year, they are most often seen during summer, fall and winter.

Polar bears can weigh over 1,500 pounds and measure 5 feet tall at the shoulder, or 12 feet when standing on their hind legs. They are excellent swimmers and can run 25 miles per hour. Because of their size, speed, and curious nature, any encounter with these large carnivores is potentially dangerous. Recent studies show there are approximately 1,500 polar bears in the Alaskan Southern Beaufort Sea Population.

### Regulatory Drivers

Polar bears are protected under the Marine Mammal Protection Act (MMPA) of 1972 and are listed as threatened under the Endangered Species Act (ESA) of 1973 as amended in 2008. In accordance with the MMPA and ESA, it is illegal to "take" polar bears. To take a polar bear or marine mammal is to:

- "Harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" according to the ESA, or to
- "Harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal" according to the MMPA.

The MMPA further defines harassment as "any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing a disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild [Level B harassment]."

On the North Slope, the USFWS is the regulatory authority tasked with oversight, management and conservation of polar bears. The United States Geological Service Biological Resource Division (USGS-BRD) and the Alaska Department of Fish and Game (ADF&G) also have staff that are involved with polar bear management and research.

USFWS can authorize incidental take of marine mammals under Sections 101(a)(5)(A) and (D) of the MMPA, and can authorize intentional take of marine mammals under Sections 101 (a)(4)(A), 109(h), and 112(c) of the MMPA through issuance of Letters of Authorization (LOA).

Section 101(c) of the MMPA allows, without specific authorization, the take (including lethal take) of a polar bear if such a taking is imminently necessary in self-defense or to save the life of a person in immediate danger, and such taking is reported to USFWS within 24 hours.

## BPXA Areas of Operation and Activities

BPXA operates the Greater Prudhoe Bay, Milne Point, Northstar, Badami, Duck Island and Liberty Units year round. These units are made up of several oil fields which are actively producing and processing oil and gas, while maintaining infrastructure and transportation systems to accommodate such activities.

Producing fields may also incorporate construction, maintenance projects, and additional pad development to enhance oil recovery within the unit. These processes could involve such activities as winter construction of ice pads and ice roads, construction of gravel roads and pads, need for seismic acquisition, and remediation and rehabilitation work or research that could require off-pad work.

## Food and Waste Management Plan

The majority of dumpsters approved for food waste disposal in the oil fields are now bear-proof. All garbage that contains food should be bagged before being deposited into animal-proof dumpsters. The dumpsters are owned by the North Slope Borough or contractors, and are replaced periodically. The dumpsters are generally in high-visibility and high-traffic areas. Bear activity near the dumpsters should be reported to security and/or the BPXA Environmental Advisors (or ACS at Northstar and Badami) so that corrective measures can be taken before problems arise. Notify the Environmental Advisors on the Slope of dumpsters with food waste that are deformed or cannot be closed. Garbage and other food-related waste should not be left in trucks (either on the flatbed or inside the vehicle). Personnel should avoid carrying garbage or food around with them as it attracts bears.

## Polar Bear and Other Animal Carcasses

Unauthorized collection, handling, possession, selling, transporting, or shipping of polar bears or their parts **is illegal** under the Endangered Species Act [FWS-R7-ES-2008-0038, May 15, 2008]. Polar bear carcasses (including bones, fur and partial carcasses) should be reported immediately following the protocol described for sightings of live bears. Carcasses **can not be collected, handled, possessed, moved or shipped** without written permission from the USFWS. Contact an Environmental Advisor for further guidance.

Although Native hunters seldom hunt whales near oil fields, oil field workers should be aware that whale carcasses frequently attract one or more polar bears. Whale carcasses can attract curious onlookers, often by invitation from Native hunters. Oil field workers should not approach whale carcasses even if a Native hunter has invited visitors.

Seal carcasses are periodically found on the beaches near the oil fields. These carcasses can also attract polar bears. Seal carcasses should be reported to BP Environmental Advisors and/or security (or ACS for Northstar and Badami) so that they can be dealt with before they become animal attractants.

## Avoidance and Encounter Procedures

The main strategy for avoiding bear/human interactions is to minimize the attractiveness of work sites. The continual presence of active machinery and vehicles tends to discourage bears from approaching work sites, and vehicle operators are generally able to detect bears nearby. If a bear should remain on-site for an extended period or

if personnel are at risk, active deterrence, authorized under Sections 109(h)(1) and 112(c) of the Marine Mammal Protection Act, may be necessary. Only Security personnel or other authorized individuals are permitted to engage in active deterrence (i.e., hazing) polar bears.

The BPXA field camps and personnel can limit encounters of polar bears by being observant of approaching animals (i.e., the use of polar bear guards) and breaking off interactions, if practicable, by allowing the animals to continue their travel.

To further reduce the risk of an encounter, all personnel shall monitor radio transmissions and/or maintain open lines of communications with area operators to enable quick notification of the presence of polar bears in the work vicinity. All personnel shall check their work area before leaving the safety of a vehicle or building. If a polar bear was recently sighted in or around the work area or operating unit, personnel shall take additional precautions (e.g., posting a bear guard) to look for polar bears while working.

As part of on-going operations, Security personnel regularly patrol the road system in the BPXA operated fields. If a polar bear is sighted, Security dispatches an officer to keep track of the bear and ensure that all personnel are notified. Consideration shall be given to providing an extra guard position in high bear activity areas e.g. Endicott, during the high risk periods of Aug 1<sup>st</sup> – Oct 31<sup>st</sup>.

If workers are required to be in a remote area (or off-pad), Security should be informed; Security or other assigned personnel may accompany workers if the bear risk is believed to be high. All operations conducted during hours of darkness will be appropriately and adequately lit to see areas surrounding work location (e.g., use of light towers). Other on-going operations, such as aerial photography and pipeline inspections, will note the presence of any bears in the area and will forward that information to Security.

At the Badami and Northstar oil fields, the Onshore Site Manager (OSM) and Offshore Installation Manager (OIM) and on-site Environmental Technicians are responsible for alerting personnel to the presence of a bear; Security at either Endicott / Milne Point / Prudhoe Bay will be contacted if a bear remains in the vicinity. Security will report sightings and interactions to the USFWS, ADF&G, USGS, BPXA Environmental Advisors and the BPXA Wildlife Compliance Advisor in Anchorage.

### **Site At-Risk Locations and Situations**

All personnel shall be aware of the layout of their work site, including the location of buildings (especially all doors), roads, dumpsters, and storage areas. For the vast majority of workers, the most heavily traveled areas are between the airports and the living quarters, and from the living quarters to the facilities. All workers are instructed to look for bears before leaving buildings; where possible, workers should exit in groups. Entrances to the camps, production facilities, and shops are to be well lit at all times.

When practicable, all personnel should have access to “safe areas” such as buildings, warm-up shacks, or vehicles. If not practicable, a bear guard authorized to haze should be present with the work crew. Personnel should be adequately briefed on polar bear activity prior to conducting work outside. Safety briefings detailing the routes to a safe location, site-specific at-risk locations, and other appropriate polar bear safety topics should be conducted on a regular basis.

**Material Storage:** Pipe, oil, hydraulic fluid, glycol, and many other materials are stockpiled in the oil fields. Liquids are typically stored together in 55-gallon drums, DOT-approved chemical totes, tanks, or in warehouses or on storage pads. These containers are bear-proof if intact and should be kept closed when not in use. Dry materials are typically stored in packs on pallets. Where possible, snow will be regularly removed from around the stacks of materials to minimize potential bear hiding places. In addition, exterior-stored pallets and drums will either be placed very close together or will be separated widely enough in an attempt to eliminate potential hiding places. Furthermore, most storage areas are visited throughout the day and are in well-lighted areas. Mobile light towers may be used to light project-specific storage areas. All personnel will be instructed to reconnoiter storage areas before leaving their vehicles. Wherever possible, personnel should avoid working alone in areas without a clear line-of-sight to a vehicle or other safe area. Personnel should notify Security (or ACS for Northstar and Badami) of any damage to pallets and/or drums that appears to be wildlife-related.

**Snow Management:** To reduce the availability of hiding places for bears, all drifting snow is to be cleared as needed or as soon as weather permits. Snow should be removed to the nearest available area adjacent to the location or to predetermined, permitted dump sites. Where practicable, large snow berms on working surfaces (potential hiding locations for bears) should be kept to a minimum. Personnel responsible for snow removal should sweep the location with their headlights before exiting their vehicles. Any sign of bears must be reported to Security (or ACS at Northstar and Badami) immediately.

### **Interfering with, Photographing, or Videotaping Polar Bears**

Polar bears are top predators, and any encounter with them is potentially dangerous and could be life-threatening. Company policy prohibits interfering with polar bears in BP Operated Fields, except for approved scientific research, regulatory, or security reasons. Interfering with polar bears is defined as any activity that may cause a change in the bear's behavior. This policy will be strictly enforced by security personnel.

Photographing or videoing a polar bear or maternal polar bear den is authorized only for those persons needing to document bear condition, behavior, and/or location for regulatory or scientific purposes. Other persons may photograph or video a polar bear **only if** the photography can be obtained without disturbing the bear (e.g., photo taken from inside a building, through a closed window). Disturbance is defined as approaching a bear with intent to photograph, or as any activity which causes the bear to alter its behavior. Vehicles shall not be stopped in the roadway for the purposes of viewing, photographing, or videotaping polar bears. Any person disturbing or approaching a bear with intent to view, photograph or videotape polar bears in the BP operated fields is subject to severe penalties, up to and including termination.

### **Maternal Polar Bear Den Mitigation and Response**

Pregnant female polar bears overwinter in dens dug in snow. Denning occurs on land and on ice. BPXA employees, contractors and others working in the BPXA oil fields are required to avoid known dens by one mile. In general, dens are not visible to the naked eye, so proactive monitoring procedures to locate dens in project areas are conducted each year in collaboration with the USFWS. Projects involving work that will be conducted off pads or roads and are scheduled to occur between November 15 and April 15 are mapped; and in areas where potential denning habitat is located, researchers use forward looking infrared (FLIR) to search for active dens. If a den is later discovered that was not detected using FLIR (for example, if a bear emerges from a den within one mile of a work site), all work must stop immediately and Security (or ACS for Northstar and Badami) personnel contacted. Security/ACS personnel must report all known or suspected dens to the USFWS immediately (not more than 12 hours after discovery). Work may not recommence without written clearance from the USFWS, Area Operations Manager (AOM), and the BPXA Environmental Advisors or the BPXA Wildlife Compliance Advisor.

The following protocols outline the initial response to the discovery of an active or suspected maternal polar bear den when working on ice roads/pads **operated by BPXA** or via cross country off-road travel away from existing infrastructure (e.g., facilities, causeways, roads or pads).

- 1) All workers must be vigilant for any signs of undetected dens in their vicinity. This includes any sightings of polar bears, suspected dens or tracks. If a bear, suspected den or tracks are seen within a one-mile buffer around the work or travel area (e.g., seismic activity, ice roads) or if an active polar bear den is discovered, site personnel shall contact Security personnel (or ACS for Northstar and Badami), who contact appropriate agencies and the BPXA Environmental Advisor in charge. Security/ACS personnel and the Environmental Advisor will notify the AOM, BPXA Wildlife Compliance Advisor (Anchorage), and the USFWS Marine Mammals Management office immediately (as soon as they are made aware of the den or suspected den).
- 2) For work in the BPXA operated fields, the BPXA Environmental Advisors will be the single point of contact between the USFWS and operations staff and will keep the USFWS informed about the situation via phone and email contact. If the site, project or ice road is not operated or controlled by BPXA, all BPXA staff and contractors will comply with directions given by the oilfield operating company who holds the LOA associated with the site or road (e.g., ConocoPhillips, Pioneer Natural Resources, etc.).
- 3) Upon an initial report of a bear, tracks or a suspected den, the Environmental Advisor will dispatch Security personnel (or ACS for Northstar and Badami) to try to determine if the bear is associated with an active den.

Once dispatched, Security/ACS personnel should try to determine whether the site is greater or less than one mile from the area of activity.

- 4) If a bear is observed near an off-road work site or ice road between March 1 and April 15, even if a den entrance is not seen, it will be assumed to be associated with a den until it is determined that the bear is not associated with a den. If the bear is determined to be associated with a den, the Environmental Advisors will immediately contact the USFWS and assign someone from Security to monitor the bear and immediate area.
- 5) The BPXA Environmental Advisors will communicate with other user groups, company staff and contractors about the situation and keep them informed of any developments. If the site or ice road is not operated by BPXA, all BPXA staff and contractors will comply with directions given by the company in charge of the site or road.
- 6) If an active maternal den is confirmed to be more than one mile away from the ice road or other activity, the den and bears will be monitored by Security personnel as directed by the BPXA Environmental Advisors, in consultation with the USFWS. A remote camera may be set up by USFWS personnel, or their representative, to record activity at the den site.
- 7) If an active maternal den is confirmed to be less than one mile away from the ice road or other activity, the BPXA Environmental Advisor in charge will immediately initiate a stop work or road closure under the direction of the USFWS.

In the event that an active maternal den is confirmed to be less than one mile away from a road, pad, off-site facility or ice road **not operated by BPXA**, all BPXA employees and contractors will, at minimum, abide by any regulations or closure activities as dictated by the company in charge of the road or facility.

#### **Ice Road Closure Protocols in Response to Maternal Den Identification**

The following protocol outlines how an ice road will be closed in the event that an active maternal den is confirmed to be less than one mile away from **an ice road operated by BPXA**. These protocols recognize that vehicles already on the road may still need to pass through the one-mile buffer zone to return to base camp. In the event that an active maternal den is confirmed to be less than one mile away from a road **not operated by BPXA**, all BPXA employees and contractors will, at minimum, abide by any regulations or closure activities as dictated by the oilfield operating company who holds the LOA associated with the site, road or facility.

- 1) Security check points will be positioned at either end of the road and mobile security personnel (Security Rovers) will be positioned on the road near the den site as directed by the USFWS and the Environmental Advisors, where practicable (i.e., unless weather or other safety concerns prohibit driving). The Security Rovers will advise the Security control check points on either end of the road to keep any new traffic from entering the road.
- 2) Security Rovers will monitor the suspected den 24 hours per day from a position that allows clear viewing of the den without disturbing it. A video camera may also be placed on the opposite side of the road as directed by the Environmental Advisor in charge or by USFWS personnel to simultaneously record the den site and road activity, where practicable. Security personnel will conduct the following:
  - ⇒ The Security Rovers will communicate with the guards at the traffic control points on both ends of the road.
  - ⇒ The Security Rovers will observe and log all traffic, as well as polar bear activity.
  - ⇒ The Security Rovers will immediately notify Security personnel, the Environmental Advisors and the AOM of any polar bear activity or emergence from the den.
  - ⇒ Designated Security personnel must park vehicles in an area that allows clear viewing of the den without creating a disturbance or potential obstruction to the sea ice for the polar bears under the guidance of the USFWS.
  - ⇒ At least one Security Rover will remain at the polar bear den site until the USFWS determines a bear monitor is no longer needed. For health and safety reasons, bear monitors will change shifts as necessary.

- 3) The den location will be provided to non-commercial aircraft operators contracted or chartered by the company (or companies) with instructions to fly at altitudes above 1,500 feet if passing over the one-mile buffer zone or to divert aircraft around the one-mile den buffer zone.
- 4) Vehicles on the road will be made aware of the maternal polar bear den once discovered. During this period, the following road rules will apply within a one-mile buffer of the known or suspected den:
  - ⇒ All vehicles must maintain a maximum speed of 10 mph.
  - ⇒ Horns and other loud devices may not be used.
  - ⇒ No stopping or backing up is allowed.
  - ⇒ No photographing or videotaping is allowed
  - ⇒ No road maintenance activities are allowed.
- 5) Road-closure signs and barriers will be placed at each traffic control point to prevent any unauthorized access to the road. If approved by the USFWS, essential traffic may be allowed to caravan behind a Security vehicle while the bears are in the den (e.g., at night).
- 6) If vehicles are still on the pad and are deemed essential traffic (e.g., vehicles not yet on the road but needing to return to base camp), the AOM in charge will advise the guards at the Security check points to form a caravan of vehicles needing to get on the road. This caravan of vehicles will be escorted by Security personnel designated to do so. All other personnel or equipment needing transport will use either aircraft or an alternative land route, unless specifically given permission by the AOM to do otherwise.
- 7) Any vehicle requesting limited access to the road during road closure will require explicit approval from the AOM (in consultation with the Environmental Advisor who is in contact with USFWS). Examples of limited essential traffic may include transportation of materials or personnel critical to process or personnel safety, environmental emergencies, or life-support equipment or medicines that can not access the remote site by other means.
- 8) If the ice road is shut down for an extended period and caravanning of vehicles is not approved by the USFWS, company staff and contractors will, depending on the exact site, timing and circumstances, re-route traffic, using a new ice road route, or employ tundra travel and/or airlifts to support activity at the remote location(s).
- 9) Guards at either end of the road will stop all traffic until given approval from the USFWS to re-open the road or caravan vehicles. The Environmental Advisors will communicate with the USFWS on the status of the female bear, cubs, maternal den site and any traffic at least two times per day or as needed unless the USFWS determines that it is not necessary. If a request is made to enter the road, only the AOM in charge of the ice road can allow access to the road with permission from the USFWS via the Environmental Advisors. If USFWS staff cannot be reached in an emergency situation, the AOM is the only one who can allow access, and only for the specified emergency situation
- 10) It is the responsibility of the AOM to ensure the road remains closed to all traffic and the USFWS is kept informed of the situation.
- 11) The AOM will give approval to resume road use only when the USFWS approves (in writing) reopening of the road, such as when the sow and cubs leave the den permanently.

### **Operational Support Vessels**

The captain or a designated crew member of vessels used as part of regular oilfield operations shall maintain a watch for marine mammals during vessel operations and will alert the vessel crew of the presence of walruses and polar bears. Vessels will maintain the maximum distance possible from concentrations of walruses or polar bears. Other than an emergency or approved hazing situations, vessels will not approach within an 805-m (0.5-mi) radius of walruses or polar bears observed on land or ice. Vessel operators will take every precaution to avoid harassment of concentrations of feeding walruses when a vessel is operating near these animals. Vessels should reduce speed and maintain a minimum 805-m (0.5- mi) operational exclusion zone around feeding walrus groups. Vessels may not be

operated in such a way as to separate members of a group of walrus from other members of the group. Vessels adjust speed according to weather conditions to avoid the likelihood of contact with marine mammals.

### **Operating Conditions for Aircraft**

Operators of support aircraft shall, at all times, conduct their activities at the maximum distance possible from concentrations of walrus or polar bears. Other than in an emergency, aircraft shall not be operated at an altitude lower than 457 m (1,500 ft) within 805 m (0.5 mi) of walrus or polar bears observed on ice or land. Helicopters may not hover or circle above such areas or within 805 m (0.5 mile) of such areas. When weather conditions do not allow a 457-m (1,500-ft) flying altitude, such as during severe storms or when cloud cover is low, aircraft may be operated below the 457-m (1,500-ft) altitude stipulated above. However, when aircraft are operated at altitudes below 457 m (1,500 ft) because of weather conditions, the operator must avoid areas of known walrus and polar bear concentrations and should take precautions to avoid flying directly over or within 805 m (0.5 mile) of these areas.

## **Personnel Training and Procedures**

Polar bear training is required by 50 CFR §18.128(a)(1)(iii), which states that “Holders of Letters of Authorization must have an approved polar bear and/or walrus interaction plan on file with the Service and onsite, and polar bear awareness training will also be required of certain personnel”. To fulfill these requirements, BPXA provides the following three levels of training.

**Level One Training** is basic polar bear awareness training and is required for all unescorted personnel on the North Slope. This training is met by completing the polar bear section of the Environmental Management System (EMS) and Compliance Training module.

**Level Two Training** is designed for personnel who have an increased likelihood of encountering a polar bear during the course of work. The frequency of polar bear encounters can increase in coastal areas, on barrier islands, and in offshore operations, therefore workers in these areas may need Level Two training. This will include basic bear biology, habitat, and behaviors. Individuals will be made aware of methods to reduce the chances of a polar bear encounter. Training will also include sighting report procedures for the work site and emergency contact numbers within BPXA. *Contact the Wildlife Compliance Advisor (Anchorage HSSEE) to determine if your project or crew will need to have Level 2 training.*

**Level Three Training** is designed for personnel involved in polar bear hazing and deterrence. Only positions designated by site Security (or the area operations manager, if a Security position is not on site) typically have Level Three training. Note that seismic crews or remote exploration crews may have a polar bear hazer who is hired as a third-party contractor for the purpose of hazing wildlife. Should a non-Security member be used for hazing, that person must have hazing training that is consistent with current bear hazing training, and must be preapproved by the BPXA Wildlife Compliance Advisor.

The following additional resources address issues associated with working in polar bear habitat and can be obtained by contacting a BPXA Environmental Advisors or the Wildlife Compliance Advisor.

- North Slope Environmental Field Handbook (available through NSTC Training, North Slope Environmental Advisors).
- Polar Bear Awareness DVDs – available from the AK HSSEE Environmental Advisors.
- The Polar Bear Interaction Plan (this document), should be available on site at all times to BPXA personnel, contractors and crew members working on behalf of BPXA.
- Additional training materials, such as project-specific presentations, which can be requested by calling the BPXA Wildlife Compliance Advisor.
- Guest speakers/trainers from the USFWS or ADF&G, which are typically arranged through the BPXA Wildlife Compliance Advisor.
- Level Three Hazing Training Module including the firearms refresher (arranged by contacting Security personnel and/or the BPXA Wildlife Compliance Advisor).
- Tier 2 Procedure: “Wildlife in the BP (Alaska) Operated North Slope Oilfields: What Do I Do With This Animal.”

## Hazing Procedures

If a bear should remain on-site for longer than 48 hours and is affecting the ability to operate, or if personnel are at risk, active deterrence, authorized under Sections 109(h)(1) and 112(c) of the Marine Mammal Protection Act, may be necessary. Hazing of a resting bear after a 48 hour period should be done in consultation with US FWS. Only trained security personnel or other authorized individuals are permitted to haze polar bears. All North Slope security officers assigned to bear guard duties will receive training at Level 2 or 3 as appropriate. Level 3 training is required of any security officer who is to engage in bear deterrence activities (i.e., hazing). Appendix A provides the policies and procedures for polar bear deterrence activities.

## Monitoring and Mitigation Plan

Monitoring polar bear observations and encounters in the oil fields is required not only to assist in oil field safety, but also to supplement USFWS data collection. Polar bear conservation has benefited from monitoring associated with USFWS Incidental Take Program since 1993. Monitoring serves to assess the effect of industrial activities on polar bears by evaluating trends and effects of bear encounter rates, take frequency, as well as the location and timing of encounters. Additionally, through monitoring BPXA can help USFWS limit disturbance to maternal polar bear den sites. BPXA's monitoring plan includes gathering data to evaluate the effects of authorized activities on polar bears. The polar bear sighting reports serve the purpose of monitoring the short-term direct effects oil field activities may have on individual polar bears, by assessing localized changes in movements, behavior, and habitat use of polar bears in response to industry activities. BPXA maintains records of all polar bear sightings and compiles annual summary reports required by the USFWS. The summary report enumerates the number of walrus and polar bears encountered during specified activities, and estimate the number of incidental takes that occurred during specified activities. Mitigation of human-bear interactions is achieved by following the procedures detailed in previous sections of this Interaction Plan. A Plan of Cooperation to mitigate potential conflicts with subsistence hunting is included in this document as Appendix B.

## Record Keeping and Reporting Procedures

BPXA is required to report all polar bear sightings and interactions to the USFWS **within 24 hours**. All instances involving harassment activities (e.g., use of cracker shells, vehicle horns, or other auditory devices; using vehicles or equipment to deter bears from an area; taking direct action to harass bears out of an area) must be reported "as soon as possible and **not later than 24 hours** after the occurrence". Only qualified and trained personnel approved by BPXA can haze polar bears. In addition, all known or suspected maternal polar bear dens or bears associated with a maternal den must be reported to the USFWS as soon as is practicable but **not longer than 12 hours** since discovery. In addition, all sightings must be reported to the BPXA Wildlife Compliance Advisor and Slope Environmental Team (**G AK HSSEE Wildlife Rept (North Slope)**) at the same time reports/notifications are sent to the agencies. It is BPXA policy to also report all polar bear sightings to USGS-BRD and ADF&G as both of these agencies have a scientific or management interest in polar bear sightings or interactions in the BPXA operated oil fields. Security or other appropriate personnel will report the sighting or hazing event to these agencies when they report to USFWS.

When a polar bear or walrus is sighted, a record must be made of the observations and any action taken on the appropriate form found in Appendix C of this Interaction Plan. After completing the appropriate reporting form security will distribute the form via fax to the USFWS, ADF&G, USGS, BPXA Environmental Advisors and the BPXA Wildlife Compliance Advisor at the following numbers (and as shown on the fax cover sheet in Appendix C):

- Craig Perham – USFWS; Fax 786-3816
- Dick Shideler – ADF&G; Fax 459-7332
- George Durner – USGS BRD; Fax 786-7150
- BPXA Wildlife Compliance Advisor; Fax 564-5020

Security will maintain fax and email confirmation receipts for verification that each completed Polar Bear Sighting Form was distributed to these groups. BPXA maintains records of all polar bear sightings, and compiles annual summary reports as specified in the LOAs issued by the USFWS.

Further action may be conducted by BPXA HSSEE (Anchorage) as required by either BPXA or agency personnel. If questions or concerns arise about reporting procedures or specific human-bear interactions security will contact the appropriate North Slope Environmental Advisor or the North Slope Environmental Team Leader via immediate page, or the BPXA Wildlife Compliance Advisor for further guidance (see attached Wildlife Notification Contact Numbers)

## Reference Documents / Attachments

- **Appendix A:** BPXA Polar Bear Hazing and Deterrence Policies and Procedures
- **Appendix B:** Protocols for Bear Hazing
- **Appendix C:** Plan of Cooperation
- **Appendix D:** Polar Bear and Walrus Reporting Forms and Fax Sheets
- **Appendix E:** BPXA Wildlife Contact Numbers

## Revision Log

Revision Date	Authority	Custodian	Revision Details
May 2, 2002	Janet Platt	Bill Streever	Initial Version
January 28, 2003	Janet Platt	Bill Streever	Revisions approved by the USFWS, see letter dated January 28, 2003
October 7, 2003	Stan Gates	Bill Streever	Review and update. Change in Authority due to reorganization.
June 11, 2007	Karen Wuestenfeld	Bill Streever	Updated to include Northstar Operations, clarify procedure and confirmation of fax record
December 13, 2007	Bill Streever	Diane Sanzone	Updated to revise Anchorage notifications from Bill Streever to Env. Studies Project Coordinator and change in agency reporting form and relevant phone/fax numbers
July 23, 2010	Karen Wuestenfeld	Diane Sanzone	Extensive changes made to the document due to the polar bear being listed under the Endangered Species Act and stricter reporting requirements from the USFWS.
September 27, 2011	Mike Brock	Beth Sharp	Reorganization and additions to align document with new USFWS Incidental Take Regulations. AMOC-North Slope General-0036
April 13, 2012	Mike Brock	Allison Erickson	Update formatting, Change Wildlife Compliance Authority to Compliance Advisor, Update Appendices info and Remove Appendices as they will remain a separate document in DK. AMOC-North Slope General-0045
Sept 14, 2012	Mike Brock	Allison Erickson	Small change to duration of interaction before hazing can take place.
October 16, 2012	Mike Brock	Allison Erickson	Updated to reflect input from USFWS: Addition of Appendix B, Protocols for Bear Hazing and insertion of revised text on hazing/ deterrence principles and hazing/ deterrence tools and techniques. AMOC-North Slope General-0074

# **Appendix A**

## **BPXA Polar Bear Hazing and Deterrence Policies and Procedures**

# BPXA Polar Bear Hazing and Deterrence Policies and Procedures

## Training Requirements

All North Slope security officers and/or those officers assigned anywhere to perform bear guard duties will receive annual refresher training for the appropriate Level 1, 2 or 3 Bear Interaction training. Level 3 trained individuals are the primary source for bear hazing and deterrence. Designated (Level 3) hazers will be firearms qualified and familiar with the capabilities and limitations of the tools (e.g., hazers will practice with actual deterrents during training classes).

Only USFWS Marine Mammals Management or individuals approved in writing by USFWS (currently, this is the Purcell training department) will provide the Level 3 training. All personnel assigned as trainers for any bear monitoring/hazing or bear guard program will meet annually and review and revise the training curricula and standards to assure consistency among trainers. Any revisions or significant modifications of training will be reviewed and approved by USFWS. Level 3 training for authorized hazers will occur, at a minimum, annually. Level 3 deterrence and hazing training will include, at a minimum, the following:

- Regulatory background (e.g., review of Marine Mammals Protection Act, Endangered Species Act, and associated definitions)
- Review of the polar bear interaction plan
- Biology and behavior of polar bears and preventing bear conflicts
- Hazing and deterrence principles, techniques and limitations
- Accountability and reporting requirements of hazers
- Identification of and field training with less lethal and lethal rounds

Only individuals who have completed all of Level 3 training *and* are directly authorized by the BPXA Security Manager will be authorized to have field training for the use of cracker shells and bean bags.

## Steps of Progressive Deterrence and Hazing

Any type of deterrence or hazing should be conducted only as a last measure when needed to prevent escalation of an encounter and ensure the safety of workers. If a bear is present at a work site but all personnel are able to retreat indoors to safety or otherwise leave the work site the bear shall not be hazed, regardless of hindrance of the progression of work activities. If altering the bear's behavior is the only way in which to ensure the safety of workers, the following steps of progressive deterrence and hazing will be followed:

1. Intimidate with size and movement – position vehicle between bear and work area, shine headlights.
2. Startle with sound - yelling, clapping, followed by horn honking and sirens.
3. Use of less-lethal hazing techniques by trained personnel (cracker shells and bean bags). This should only be used as a technique with the prior agreement of the hazer and his/her supervisor. This can either be done in person or via the radio.

4. Lethal contact – fire lethal round at bear. This can only be used to protect the officers own life or the life of another. Examples scenarios include a charging bear with no avenue of escape for an officer or another or a bear that has already attacked an officer or another.

### **Hazing Deterrence Principles**

1. Deterrence works best when other preventive strategies to keep bears from obtaining food and garbage rewards are successful.
2. The effectiveness of deterrents is a function of whether or not the bear has been rewarded for a behavior in the past, and how strong it's motivation is. The most difficult animal to deal with is a very hungry, determined bear that has repeatedly gotten into food and garbage previously at a site. The easiest animal to deal with is a curious somewhat wary bear that has never been previously rewarded by food associated with human activity.
3. Another difficult bear is one that is exhausted from a long swim or trek into a work environment. This particular type of bear should not be hazed for at least 48 hours, but should be monitored during this time to ensure worker safety.
4. Deterrent efforts also benefit from good detection efforts. Early detection of a bear's approach or presence permits more preparation time and provides more options for deterrent actions.
5. The best scenario is to be prepared to use deterrents, but not have to use them, letting a bear move on by the facility or through the area on its own while being monitored.
6. Deterrents should only be used for very specific, approved objectives and should never be used unnecessarily or out of frustration.
7. Finesse is usually better than force – just making a curious bear think twice about approaching people or facilities by moving a vehicle toward it may be enough to discourage it.
8. Restraint and patience in resorting to deterrent rounds and more serious tools is important. The desired result can often be obtained by less intrusive methods.
9. Overuse of deterrents can decrease their effectiveness. Bears will get used to most deterrents if repeatedly exposed to them.

### **Hazing / Deterrence Tools and Techniques**

1. Hazing and deterring a bear basically involves trying to prevent the bear from some activity or getting it to move away by intimidating or frightening it. In the context of this policy, it should be done either visually, with sound, or by startling a bear through the use of a deterrent. Details about the advantages and limitations of the various deterrents will be covered during training.
2. One way to intimidate a bear is visually with size and movement. Generally a bear perceives large size and movement towards it as assertive/dominant. Moving towards a bear with a vehicle is often enough to haze it. Turning the vehicle so that it is sideways to a bear adds size and may aid in deterring the bear.

3. Noise is another way to intimidate or frighten a bear into moving away. Depending on the situation; horns, sirens, cracker shells, even yelling or clapping can haze a bear.
4. Less lethal ammunition such as a beanbag should startle a bear and is another way to dissuade a bear from approaching or frequenting facilities.
5. As a last resort lethal ammunition is available, but can only be used to protect the officers own life or the life of another.
6. Communication and patience are often overlooked tools that are available to the hazer. For example, if a bear is moving toward a work area, but all workers have been warned to remain inside, is it necessary to haze the bear? Is it possible for the hazer to move his vehicle between the bear’s path and facilities entry and wait for the bear to pass through the area while maintaining a zone of safety for workers?

**Lethal Take**

If necessary, shotguns may be used as a mechanism for lethal take under Section 101(c) of the Marine Mammal Protection Act. Without specific authorization, the lethal take of a polar bear is warranted if such taking is imminently necessary for self-defense or to save the life of a person in immediate danger, and such taking is reported to the Service-MMM within 24 hours.

**Ammunition Storage Inspection and Handling**

As listed in the following table, less lethal and lethal rounds are to be labeled and stored in containers as specified.

<b>Type of Round</b>	<b>Type of Casing</b>	<b>Label</b>	<b>Manufacturer</b>	<b><u>STORAGE CONTAINER Label and Color</u></b>
Lethal Round	Non-transparent plastic	Federal Rifled Slug/Lead shell nose	Federal	“LETHAL SLUGS” Forest Green
Cracker Shells	Translucent plastic with orange inner projectile	Explosive	Stoneco, Inc/relabeld Northern Security Supply	“SHELL CRACKER” Orange
Super Sock	Translucent Plastic #2581	CTS super sock	Combined Tactical Systems/Super Sock	SUPER SOCK smoke grey

The color coded container boxes will be clearly labeled on the exterior LETHAL SLUGS and the less lethal rounds will be labeled SUPER SOCK and CRACKER SHELLS. A minimum of five rounds and a maximum of 25 rounds of each type of ammunition will be carried in each container.

Evidence tape will be placed over the lid of the ammunition container with the name and date of the ammunition inspector (e.g., security supervisor). The ammunition cans will also be inspected by the officer assigned to bear hazing duties at the beginning of each shift to ensure that the

evidence tape is in place. If the evidence tape is absent or if there is a suspicion that it has been tampered with then the security supervisor will be called for an inspection of the contents. Once this is complete and the supervisor is comfortable with the contents then new evidence tape will be added.

No ammunition will be carried in a shotgun chamber or magazine (tube) and only security personnel are authorized to carry shotguns and ammunition in their vehicles. Ammunition purchase requests will be routed through the security manager.

### **Fire Arms Discharge Reporting and Evidence Retention**

Any discharge of a firearm will require the completion of the following Discharge of Firearms Report, which will be sent to the Security Manager. The report must be completed and sent prior to the end of the shift of duty. The report will be forwarded to the BPXA security director within 24 hours.

All evidence including spent shell casings will be collected and preserved in accordance with standard law enforcement evidence collection and chain of custody protocols. The evidence will be maintained for a period of sixty (60) days. US FWS personnel have the right to demand access to the evidence and every effort must be given to facilitate their requests. The evidence will be disposed of following this sixty day period.

**BP Security Director: Billy Andrews**  
900 E. Benson Blvd.  
PO Box 196612  
Anchorage, AK 99519  
907-564-5499  
907-564-4799 (Fax)

**DISCHARGE OF FIREARMS REPORT**

DATE: \_\_\_\_\_ OFFICER'S NAME: \_\_\_\_\_

TIME: \_\_\_\_\_ CONTACT NUMBER/EMAIL: \_\_\_\_\_

SECURITY IR #: \_\_\_\_\_

SYNOPSIS: (Reason for Discharge of Firearms) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Witness: \_\_\_\_\_  
\_\_\_\_\_

LOCATION: \_\_\_\_\_  
\_\_\_\_\_

**ESCALATION OF FORCE:**

- OFFICER PRESENCE/VERBAL
- NOISE MAKERS/HORN/SIREN/LIGHTS
- CRACKER ROUNDS
- BEAN BAG/SUPER SOCK
- LETHAL FORCE

TYPE OF AMMUNITION USED & NUMBER OF ROUNDS FIRED:  BUCK SHOT;

SLUGS;  BEAN BAGS;  CRACKER SHELLS;  .40 CAL;

.223 CAL;  OTHER (List)

SPENT OR USED AMMUNITION LOGGED INTO EVIDENCE?  YES

PROJECTILE RECOVERED AND LOGGED INTO EVIDENCE?  YES

**Instructions:** **Officer** – email this report to AK, Ops Security Sgt.  
**Operation Sgt** – Review the report and email to AK, Ops Security Lt.  
and AK, Ops Security Captain  
**Operation Lt.** – Review the report  
**Captain** – Review and forward report to Billy Andrews and John Glass  
within 24 hours. ([billy.andrews@bp.com](mailto:billy.andrews@bp.com)) ([john.glass@nmsusa.com](mailto:john.glass@nmsusa.com))

## Appendix B

# Plan of Cooperation

## BPXA Plan of Cooperation

Throughout the history of BPXA's Alaska North Slope operations and through permitting and compliance related activities for the Prudhoe Bay, Greater Point McIntyre, Milne Point, Endicott, Badami and Liberty Units, BPXA has made an effort to minimize the impact of our operations on subsistence activities related to polar bears and Pacific walrus. BPXA has coordinated closely with North Slope communities and stakeholders in the vicinity of our operations including: the North Slope Borough (NSB) Planning and Wildlife Department, Nuiqsut, Barrow, Kaktovik, Inupiat Community of the Arctic Slope, the Alaska Eskimo Whaling Commission (AEWC) and the Nanuuq Commission. The "2011 Open Water Season Programmatic Conflict Avoidance Agreement" (CAA) became effective as of March 31, 2011. Historically, BPXA has participated in many meetings with NSB communities and stakeholders on the topic of subsistence resources and much of this dialog is reflected in various documents, including the following: Environmental Impact Statements (EIS), Environmental Assessments (EA), BOEMRE Development and Production Plans, NSB Master Plan and email correspondence as listed in the citations below. Subsistence hunting issues were discussed in many of these meetings. No conflicts with subsistence polar bear and Pacific walrus hunting were identified in the meetings.

### Plan of Cooperation with Subsistence Users - Citations

#### **1) BP Exploration (Alaska) Inc. Liberty Development Project Master Plan. 2008. Anchorage, Alaska.**

Page 1-1 / Liberty Project History

*In August 2005, BPXA decided to pursue use of uERD from an onshore or existing Endicott Field location. Such a project eliminates the offshore impacts of new, stand-alone island and of pipeline construction. Recent advancements in drilling technology have made such a project feasible. This change in project scope significantly mitigated the potential offshore environmental impacts related to the Boulder Patch and marine mammals, and concerns of the North Slope Inupiat communities related to the bowhead whale and subsistence whaling.*

Page A-3 / Section A.1.4 Environmental Training Program

*BPXA has a comprehensive environmental and safety training program which will be implemented for the Liberty Project. This program includes components to assure that all personnel (BPXA and contractors) are appropriately trained in wildlife avoidance and interactions, and fully understand the need for protection of subsistence wildlife resources and endangered species. A list of potential applicable environmental, safety, and technical training is provided in Section 11.*

#### **2) BP Exploration (Alaska) Inc., (2007). Liberty Development Project Development and Production Plan. Attachment A. Environmental Impact Analysis. April 2007. Anchorage, Alaska.**

Page 2-79; Section 2.15.3.4 - Subsistence-Harvest Seasons and Harvest Success Profile; Polar Bears

*Polar Bears: The harvest of polar bears (nanuq) by Nuiqsut hunters begins in mid- September and extends into late winter. Polar bear meat is sometimes eaten, although only limited harvest data are available. The NE NPR-A Final Amended IAP/EIS (USDOI, BLM, 2004b) notes: “Nuiqsut residents have indicated that polar bears are not an important subsistence resource for the community and if taken would be an incidental harvest.”*

Page 3-45; Section 3.3.12.2 - Subsistence

*“More specifically, with respect to subsistence-harvest patterns, the Liberty FEIS [Section III(1)]\* concluded:…Tainting concerns also would apply to polar bears and seals and beluga whales, walruses, fish, and birds. Additionally a large oil spill could cause potential short-term but serious adverse effects to long-tailed ducks and king and common eider populations. A potential loss of one or two polar bears could reduce their availability locally to subsistence users, although they are seldom hunted by Nuiqsut hunters except opportunistically while in pursuit of more preferred subsistence resources.”*

**3) U.S. Department of the Interior, Minerals Management Service. 2002. Alaska OCS Region. Liberty Development and Production Plan. Final Environmental Impact Statement. Anchorage, Alaska.**

Page III-11 / Volume I; Section III.A.2.h

*Tainting concerns also would apply to polar bears, seals, beluga whales, walruses, fish, and birds. Additionally, a large oil spill could cause potential short-term but serious adverse effects to long-tailed ducks and king and common eider populations. A potential loss of one or two polar bears could reduce their availability locally to subsistence users, although they are seldom hunted by Nuiqsut hunters except opportunistically while in pursuit of more preferred subsistence resources.*

Page III-11 / Volume I; Section III.A.2.h

*For the communities of Nuiqsut and Kaktovik, disturbances periodically could affect subsistence resources, but no resource or harvest area would become unavailable and no resource population would experience an overall decrease. Disturbance and noise periodically could affect subsistence species that include bowhead whales, seals, polar bears, caribou, fish, and birds. Oil-spill cleanup would increase these effects. Disturbances could displace subsistence species, alter or reduce subsistence-hunter access to these species and, therefore, alter or extend the normal subsistence hunt. However, potential disruptions to subsistence resources should not displace traditional practices for harvesting, sharing, and processing those resources.*

Page III-159 / Volume 1; Section III.D.7.h

*"A potential disturbance to polar bears could reduce their availability locally to subsistence users, although they are seldom hunted by Nuiqsut hunters except opportunistically while in pursuit of more preferred subsistence resources. No harvest areas would become unavailable for use, and traditional practices for harvesting, sharing, and processing subsistence resources would continue."*

Page V-39 / Volume 1; Section V.C.2.b.2(b)

*There is no clear indication that disturbance from oil exploration and development has had an additive or synergistic effect on the polar bear population. "Two hunters from Nuiqsut reported that polar bear activity has decreased in recent decades around Prudhoe Bay and west, to the Colville River," while "some hunters stated that the number of polar bears varies from year to year but has remained stable overall" (Kalxdorff, 1997).*

Page V-56 / Volume 1; Section V.C.8.a

*A potential loss of polar bears from oil spill effects could reduce their availability locally to subsistence users, although they are seldom hunted by Nuiqsut hunters except opportunistically while in pursuit of more preferred subsistence resources.*

Page VI-57 / Volume 2; Section VI.B.1.c.4(b)

*According to whaling captain Thomas Napageak's statement at the Beaufort Sea Sale 144 Public Hearings in Nuiqsut, the taking of polar bear is not very important now because Federal regulations prevent the selling of the hide: "...as valuable as it is, [it] goes to waste when we kill a polar bear" (USDOJ, MMS, 1995b).*

Page E-1-4 / Volume 4; Appendix E-1.B.2

*Summary of Oral Comments Received at Scoping Meetings: Scoping meetings were held in Nuiqsut (March 18), Barrow (March 19), Anchorage (March 25 and April 8), Kaktovik (March 31), and Fairbanks (April 1). Staff from MMS and representatives from BPXA attended these meetings, provided an overview of the project, answered questions about the proposed Liberty project and the ongoing process and schedule, listened to and noted the concerns voiced about the proposed project. Oral comments were received from 82 individuals who attended at least one of the scoping meetings.*

#### **4) U.S. Army Corps of Engineers, Alaska. 1999. Final Environmental Impact Statement. Beaufort Sea Oil and Gas Development/Northstar Project. Anchorage, Alaska.**

Page 2-12 / Volume 2; Section 2.7.2.2

*Preparation of Questions to Obtain Traditional Knowledge: Specific questions were used for Barrow, Nuiqsut, and Kaktovik community meetings to gather Traditional Knowledge on the Alaskan Beaufort Sea and the project. Questions came from three sources. First, questions were prepared by individuals responsible for preparation of this EIS. Second, questions were*

*developed from review of past testimony. Third, BPXA provided questions related to the BPXA proposed project design, construction, and operation.*

Page 2-12 / Volume 2; Section 2.7.2.3

*Data Collection Trips to Communities: Nuiqsut - August 13-16, 1996: Meetings were scheduled to ask Traditional Knowledge questions of the Nuiqsut whaling captains on August 14 and in a general community meeting on August 15. Seven of the ten community whaling captains attended the August 14 meeting and provided a great deal of information based on their knowledge and experience. This meeting provided valuable information on historical use of the project area, concentrations of fish and wildlife, and experience with oil spill cleanup drills.*

Page 2-15 / Volume 2; Section 2.7.2.3

*Data Collection Trips to Communities: Barrow - August 27-28, 1996: At the fall meeting of the Barrow Whaling Captains' Association held August 27, 1996, BPXA provided a summary description of its proposed project. Following BPXA's presentation, the goal of integrating Traditional Knowledge into the EIS was explained. Times were scheduled with whaling captains to discuss Traditional Knowledge and BPXA's proposed project the following day and evening. A total of four whaling captains contributed information. Trip summaries were prepared for each of the data collection community meetings. In some cases, participants allowed meetings to be taped, and information was recorded on maps. Information gathered was incorporated into the Traditional Knowledge database. The majority of information collected in these community meetings concerned sea ice, currents, storms, fish, wildlife, historic use of specific lands and waters, contemporary subsistence activities and use areas, and aspects of project design.*

Page 6-5 / Volume 3; Section 6.2.3

*Marine Mammals: Inupiat hunters have noted that there are more polar bears than there used to be. Archie Ahkiviana, a whaling captain from Nuiqsut, noted that polar bears, "Are getting [to be] too many," and added, "One time they counted over 100 polar bears right down below Endicott." (Pers. Comm., Nuiqsut Whaling Captains Meeting, August 13, 1996:25-26). Hunters have observed that polar bears may be attracted to oil and gas exploration sites. Thomas Napageak, a whaling captain and President of the Native Village of Nuiqsut, stated that polar bears, "Go toward the noise or anything that moves." (Pers. Comm., Nuiqsut Whaling Captains Meeting, August 13, 1996:27). Inupiat hunters also know that polar bears are sensitive to noise during the denning season. Billy Adams, representing the NSB, stated, "Polar bears that den ... will not tolerate noise disturbance." (USDOJ, MMS, 1986:8). Nuiqsut elder Samuel Kunaknana observed that polar bears have built dens along rivers because of high snow drifts and lack of ice movement, as compared to sea ice (USDOJ, MMS, 1979:5).*

Page 6-71 / Volume 3; Section 6.5.1.5

*Inupiat hunters have noticed that there are more polar bears than there once were (A. Ahkiviana - Pers. Comm., Nuiqsut Whaling Captains Meeting, August 13, 1996:25-26).*

## **Appendix C**

# **Polar Bear and Walrus Reporting Forms and Fax Sheets**

United States Department of the Interior  
FISH AND WILDLIFE SERVICE  
1011 E. Tudor Road  
Anchorage, Alaska 99503-6199  
**BP Exploration Alaska, Inc.**  
**LOA 11-21 and 13-INT-02**

**Type of Polar Bear Sighting Report: ON LAND**\_\_\_ **MARINE**\_\_\_

Date: \_\_\_\_\_ Observer Name: \_\_\_\_\_  
Time: \_\_\_\_\_ Contact number/email: \_\_\_\_\_

**Location** \_\_\_\_\_

Latitude: \_\_\_\_\_ Longitude \_\_\_\_\_ Datum \_\_\_\_\_

**Weather conditions:** Fog \_\_\_ Snow \_\_\_ Rain \_\_\_ Clear \_\_\_ Temperature \_\_\_ F/C

Wind speed \_\_\_\_\_ mph/kts Wind direction \_\_\_\_\_ Visibility: Poor \_\_\_ Good \_\_\_  
Fair \_\_\_ Excellent \_\_\_

**Number of bears:**

\_\_\_\_ Adult M/F \_\_\_\_\_ Sow/cub(s)  
\_\_\_\_ Sub-adult \_\_\_\_\_ Sow/yearling(s)  
\_\_\_\_ Unknown \_\_\_\_\_ Sow/2YO(s)

**Estimated distance of bear(s) from personnel (closest point) \_\_\_\_\_ (meters) and facility (closest point) \_\_\_\_\_ (meters)**

**Estimated distance of bear(s) from vessel or location \_\_\_\_\_ (meters)**

**Bear behavior (Initial Contact):**

Curious \_\_\_ Swimming \_\_\_ Resting \_\_\_ Hunting \_\_\_ Walking \_\_\_ Other (explain) \_\_\_\_\_

**Bear behavior (After Contact):**

Curious \_\_\_ Swimming \_\_\_ Resting \_\_\_ Hunting \_\_\_ Walking \_\_\_ Other (explain) \_\_\_\_\_

**Possible attractants present:** \_\_\_\_\_

**Description of encounter/other bear behavior** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Duration of encounter:** \_\_\_\_\_

**Deterrents used/distance (IN ORDER OF ESCALATION 1-9):**

- |                                     |                              |
|-------------------------------------|------------------------------|
| 1) Bear Monitors _____              | 6) Sirens _____              |
| 2) Vehicle (position/revving) _____ | 7) Acoustic Recordings _____ |
| 3) Spotlight/Headlight _____        | 8) Chemical Repellents _____ |
| 4) Yelling/Clapping _____           | 9) Other _____               |
| 5) Horn _____                       |                              |

**Send email within twenty-four hours of sighting to all the agency and BPXA contacts listed below:**

- USFWS – Craig Perham (**Email:** Craig\_Perham@fws.gov, 907-786-3810, Fax: 907-786-3816\*)
- USGS – George Durner (**Email:** GDurner@usgs.gov, 907-786-7082, Fax: 907-786-7150\*)
- USGS – Todd Atwood (**Email:** TAtwood@usgs.gov, 907-786-7061, Fax: 907-786-7150\*)
- ADFG – Dick Shideler (**Email:** Dick.Shideler@alaska.gov, 907-459-7283, Fax: 907-459-7332\*)
- BPXA – Wildlife Compliance Advisor (**Email:** G AK HSSEE Wildlife Rept (North Slope), 907-564-4132)

**\*In the event that an email report does not go through to necessary parties, please fax in sighting reports as soon as possible and notify the Wildlife Compliance Advisor.**



United States Department of the Interior  
FISH AND WILDLIFE SERVICE  
1011 E. Tudor Road  
Anchorage, Alaska 99503-6199  
**BP Exploration Alaska, Inc.**  
**LOA 11-21 and 13-INT-02**

**PACIFIC WALRUS SIGHTING REPORT**

Date: \_\_\_\_\_ Observer Name: \_\_\_\_\_  
Time: \_\_\_\_\_ Contact number/email: \_\_\_\_\_

**Location** \_\_\_\_\_  
\_\_\_\_\_

Latitude: \_\_\_\_\_ Longitude \_\_\_\_\_ Datum \_\_\_\_\_

**Weather conditions:** Fog \_\_\_\_\_ Snow \_\_\_\_\_ Rain \_\_\_\_\_ Clear \_\_\_\_\_ Temperature \_\_\_\_\_ F/C

Wind speed \_\_\_\_\_ mph/kts Wind direction \_\_\_\_\_ Visibility: Poor  
Fair  
Good  
Excellent

**Total number of walrus:** \_\_\_\_\_ Adult; \_\_\_\_\_ Sub-adult; \_\_\_\_\_ Unknown

**Estimated distance of walrus (es)** from vessel or location \_\_\_\_\_ (meters)

**Walrus behavior (initial contact):** Resting (hauled out) \_\_\_\_\_ Swimming \_\_\_\_\_ Other \_\_\_\_\_

**Walrus behavior (after contact):** Resting (hauled out) \_\_\_\_\_ Swimming \_\_\_\_\_ Other \_\_\_\_\_

**Duration of encounter:** \_\_\_\_\_ **Possible attractants present:** \_\_\_\_\_

**Description of encounter:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Send email to contact(s) below:**

USFWS – Craig Perham; **Email:** Craig\_Perham@fws.gov, 907-786-3810, Fax: 907-786-3816\*

BPXA – Wildlife Compliance Advisor; **Email:** G AK HSSEE Wildlife Rept (North Slope), 907-564-4132

**\*In the event that an email report does not go through to necessary parties, please fax in sighting reports as soon as possible and notify the Wildlife Compliance Advisor.**



## **Appendix D**

# **BPXA Polar Bear and Walrus Contact Numbers**

## Polar Bear and Walrus Notification Contact Numbers

### **BP Exploration (Alaska) Inc.**

Environmental Team Leader, HSSEE, Anchorage	907-564-4941
Wildlife Compliance Authority, HSSEE, Anchorage	907-564-4132
Director, Reg Compl and Env, Anchorage	907-564-5501
Fax for BPXA HSSE, Anchorage	907-564-5000
North Slope Security Captain	907-659-5181
MCC Security Dispatch	907-659-5631
Endicott Security	907-659-6800
BOC Security	907-659-4441
PBOC Security	907-659-5634
MPU Security	907-670-3300
HSSEE Environmental Team Leader (North Slope)	907-659-5196 office 659-4236; 579 pager
HSSEE Environmental Advisor East	907-659-5999 office 659-5100; 1746 pager
HSSEE Environmental Advisor West	907-659-4789 office 659-4236; 966 pager
HSSEE Environmental Advisor Central	907-659-5893 office 659-5100; 2675 pager
HSSEE Environmental Advisor North	907-659-6810 office 907-659-6799; 190 pager
HSSEE Environmental Advisor MPU	907-670-3382 office 907-670-3471; 257 pager
HSSEE Environmental Tech Northstar	907-670-3508 office 659-5100; 1487 pager
BPXA Wildlife Email Reporting	G AK HSSEE Wildlife Rept (North Slope)

### **Federal and State Agency**

Craig Perham	(USFWS – Primary contact)	907-786-3810 (work) 907-887-3082 (off-duty) 907-786-3816 (fax)
Christopher Putnam	(USFWS – Secondary contact)	907-786-3844 (work) 907-268-0577 (off-duty)
Dick Shideler	(ADF&G)	907-459-7283 (work) 907-459-7332 (fax) 907-455-6897 (home)
George Durner	(USGS)	907-786-7082(work) 907-786-7150 (fax)



## **ATTACHMENT 6**



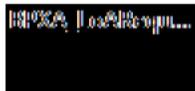
## Denman, Erika A (Denman)

---

**From:** May, Christina H  
**Sent:** Monday, June 10, 2013 12:00 PM  
**To:** Deborah\_Pierce@fws.gov  
**Cc:** craig\_perham@fws.gov; christopher\_putnam@fws.gov  
**Subject:** BPXA request for 2013-2014 Liberty LOA

Dear Ms. Pierce Williams:

BP Exploration (Alaska), Inc. (BPXA) is requesting a Letter of Authorization (LOA) pursuant to 50 CFR 18, Subpart J and Section 101(A)(5) of the Marine Mammal Protection Act (MMPA) for the incidental (unintentional) take of polar bears and Pacific walrus during the Liberty Development Project (Liberty). A geotechnical investigation for the Liberty Development Project began this past winter and was covered under a separate job specific LOA. Activities proposed in this new LoA request will support Liberty investigation activities for the period of July 2013 through December 2014 (see attached request).



If you have any questions regarding this request, please contact me at 907-564-4132 or [Christina.May@bp.com](mailto:Christina.May@bp.com).

Thank you for your time and consideration.

Sincerely,

***Christina May***

Wildlife Compliance Advisor  
BP Exploration (Alaska), Inc  
office: 907.564-4132



June 10, 2013

Christina May  
BP Exploration (Alaska) Inc.  
P.O. Box 196612  
900 East Benson Boulevard  
Anchorage, Alaska 99519-6612  
(907) 564-4132

Marine Mammals Management Office  
Attn: Deborah Pierce Williams  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, Alaska 99503

**Request for Letter of Authorization for the Incidental Take of Polar Bears and Pacific Walruses; and Request to Take Polar Bears by Harassment (Deterrent Activities) while conducting activities at the Liberty Development Project.**

Dear Ms. Pierce Williams,

BP Exploration (Alaska), Inc. (BPXA) is requesting a Letter of Authorization (LOA) pursuant to 50 CFR 18, Subpart J and Section 101(A)(5) of the Marine Mammal Protection Act (MMPA) for the incidental (unintentional) take of polar bears and Pacific walruses during the 2013/2014 Liberty Development Project (Liberty).

In addition, we are requesting a permit pursuant to sections 101(a)(4)(A)(iii), 109(h) and 112(c) of the MMPA to take by harassment (deterrent activities) polar bears for the protection of both human life and polar bears while conducting activities related to the 2013/2014 Liberty Development Project. This LOA request is for the period of June 2013 through December 31, 2014, during which time the activities associated with the Liberty Project are planned to occur.

The project activities associated with Liberty will occur in the Foggy Island Bay area, including the Duck Island Unit and Liberty Unit. Logistical support will also occur in the Prudhoe Bay Unit. The current development project will supersede the cancelled Liberty uERD Project. BPXA is currently exploring the feasibility of a man-made gravel island for drilling situated directly over the reservoir with a second island for relief well capability nearby. Currently, two primary development options are being evaluated: 1) a full processing facility on the new island (similar to BPXA's Northstar facility); or 2) well-pad type island with a three phase pipeline to the Duck Island Unit for tie-in and processing via SDI Pad and/or Endicott Production Facility. An approximately 8 mile long subsea pipeline carrying either sales oil or three-phase production fluids is also being investigated and would be critical infrastructure for the development. The activities proposed in this LOA request will assist BP in characterizing options for the Liberty Project. A Development Plan of Production will be submitted to Bureau of Safety and Environmental Enforcement (BSEE) by December 2014.

A summary and tentative schedule of activities is included as Attachment I and a figure of the project area as Attachment 2. While all project activities currently planned are listed in the attachment, BPXA may wish to perform additional activities during this permit period. If additional activities differ significantly from the proposed scope of work BPXA will consult with the US Fish and Wildlife Service (USFWS) to maintain minimal impact on polar bears and Pacific walruses. BPXA will also continue to work with the Alaska Eskimo Whaling Commission on the Conflict Avoidance Agreement and will communicate with local communities and/or the North Slope Borough to ensure that the Liberty Development project is well understood.

In accordance with 50 CFR §18.124, BPXA has submitted a Polar Bear and Walrus Interaction Plan which was revised in September 2012 and is on file with USFWS. The plan includes a Monitoring and Mitigation Plan, Plan of Cooperation, and Hazing and Deterrence Policies and Procedures. All activities

will be conducted in accordance with the plan to ensure that impacts to bears, walrus, and human safety are minimized during oil field activities.

BPXA appreciates the opportunity to work with USFWS for the protection of marine mammals. If you have any questions or suggestions please contact me at 907-564-4132 or [Christina.May@bp.com](mailto:Christina.May@bp.com). Our intent is to submit this application to you only in electronic form. Please advise if you would like us to mail you a paper copy and we would be happy to accommodate you.

Sincerely,



Christina May  
Wildlife Compliance Authority  
BP Exploration (Alaska), Inc.

Enclosures:

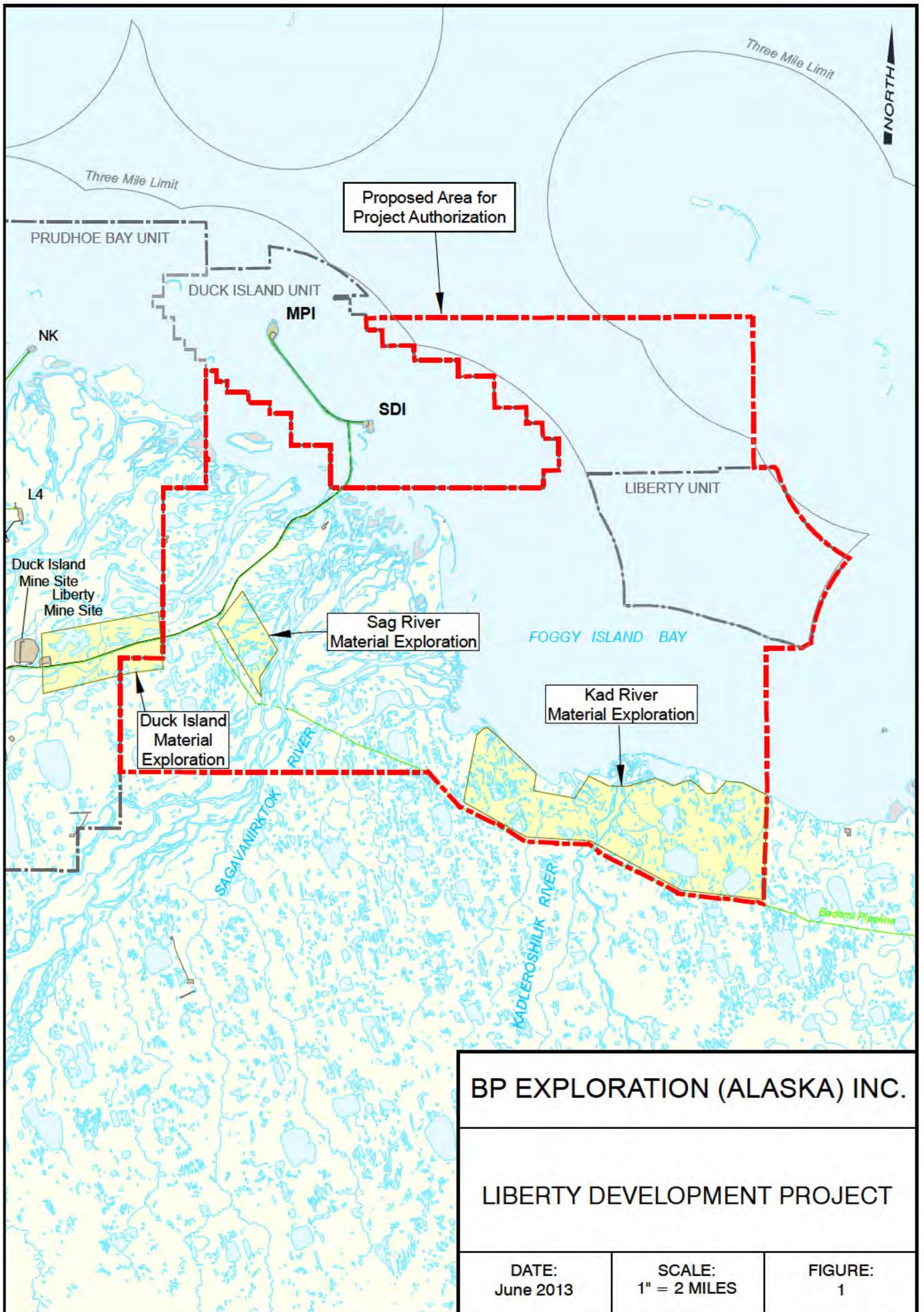
Attachment 1 BPXA Liberty LOA Activity Table  
Attachment 2 Liberty LoA Figure

cc: C. Perham, USFWS  
C. Putnam, USFWS



# Attachment 1

Project	Project Description	Level of Activity	Approximate Dates
Winter Geotechnical Investigation-Offshore	Boreholes will be drilled to investigate permafrost suitability for drill island and pipeline construction.	Four rolligons will be used to move around the tracked enclosed drill unit and carry equipment, fuel, etc. Approximately three 10 person crews will operate around the clock during the field portion of the project. The support rolligons will be used to facilitate crew change to and from the nearest permanent road(s). Other small off-road vehicles (e.g. tuckers, snowmachines, etc.) may be used to support operations. This project is expect to take approximately 2 months to complete.	February-April 2014
Winter Geotechnical Investigation-Trenching test	Two trenches may be dug, using conventional excavation equipment, to determine feasibility of buried pipeline. One trench will likely be in the Sag Delta and one in deeper water. Both test trenches will be along the proposed pipeline route.	A loader, excavator, backhoe, dumptrucks and a trencher may be used to excavate the test trenches. This project is expected to take approximately two months to complete and may require an ice road for project support. Ice road construction equipment may include fuel truck, rolligons, water trucks, and other typical support vehicles. Approximately 20 people will support the project in the field.	January-April 2014
Winter Geotechnical Investigation-Onshore	Boreholes will be drilled to investigate potential mine site areas in the Kadleroshilik River Area, Sagavanirktok River Area, and the Duck Island Pit Area	Four rolligons will be used to move around the tracked enclosed drill unit and carry equipment, fuel, etc. Approximately three 10 person crews will operate around the clock during the field portion of the project. The support rolligons will be used to facilitate crew change to and from the nearest permanent road(s). Other small off-road vehicles (e.g. tuckers, snowmachines, etc.) may be used to support operations. This project is expect to take approximately 2 months to complete.	December 2013-May 2014
Offshore Geophysical Investigation-Strudel Scour Surveys	An over flight of the survey area will occur in order to map strudel drains on the ice surface in the vicinity of the potential pipeline routes. Prior to initiating mapping activities, the field crew will undertake a high-altitude reconnaissance to search for polar bears and seals in the overflood region. The helicopter will fly at an altitude of 1,500 ft. if permitted by the prevailing weather conditions, or a lower altitude if warranted by the available ceiling and visibility. If any marine mammals are spotted, their locations will be noted and the helicopter will avoid flying within 0.5 mile of these sites unless and until the animals are no longer present.	This work will be performed by a 2 person crew using a helicopter for approximately 1 week.	May-June 2014
Offshore Geophysical Investigation-Geophysical reconnaissance and bathymetry on pipeline routing	Sidescan sonar, subbottom profiler, and single or multi beam bathymetry will be used to obtain sea bottom information at potential island sites and along candidate pipeline routes.	Support activities, such as vessel mobilization/demobilization, and vessel re-supply, are primarily planned to occur at West Dock and may also occur at Endicott (SDI and MPI). Other existing pads within the PBU area may be utilized for equipment staging or support if necessary. Two 40 ft. vessels and one 15ft. inflatable will be used for the project. Initial mobilization will occur from West Dock, and the vessels will moor near MPI daily.	July- August 2013
Offshore Geophysical Investigation-Shallow Hazard Survey	Sidescan sonar, subbottom profiler, single or multi beam bathymetry, and magnetometer will shoot 2D seismic to evaluate shallow hazards in accordance with BOEM requirements.	Support activities, such as vessel mobilization/demobilization, and vessel re-supply, are primarily planned to occur at West Dock and may also occur at Endicott (SDI and MPI). Other existing pads within the PBU area may be utilized for equipment staging or support if necessary. BP expects to use two approximately 40 ft. vessels and one smaller inflatable for the project, but this may change based on project needs. Initial mobilization is planned to occur from West Dock with the vessels mooring near MPI if conditions allow.	Summer 2014
Wetland Characterization	The field team will complete aerial reconnaissance of the survey area from the helicopter; followed by landing to complete wetland surveys and walk portions of the area to document vegetation communities and landforms at a sample of mapped vegetation polygons.	Estimated effort is 1 to 2 days on site with the crew returning to Deadhorse or other facilities each day. Surveys will utilize helicopter with multiple landings and ground verification across the survey area.	August 2013 and Summer 2014 (if required)
Archeology Clearance	Aerial reconnaissance of the survey area from the helicopter. It is anticipated that the field survey will also involve landing and conducting pedestrian transects of the all or portions of the project area. The presence of high probability land forms (terraces, pingos, etc.) may warrant shovel testing.	Surveys will take 2-5 days of helicopter and foot travel.	Summer 2013 and 2014
Potential Avian, Marine Mammal and Fisheries Surveys	If, upon review of the available literature and existing data, it is determined that field studies are necessary to fill data gaps, we will conduct surveys focusing on species of concern for this area.	No more than 6 surveys per summer/fall and could include small vessels, helicopters, and/or fixed wing aircraft.	Summer 2013 and 2014 (if required)



BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT

DATE:  
June 2013

SCALE:  
1" = 2 MILES

FIGURE:  
1

## Denman, Erika A (Denman)

---

**From:** May, Christina H  
**Sent:** Wednesday, July 03, 2013 3:10 PM  
**To:** craig\_perham@fws.gov  
**Cc:** Iles, Keri (SWIFT); Kitagawa, Judy S; Bailey, Cindy E; Brock, Mike  
**Subject:** RE: Liberty LOA request- Follow-up to questions

Hi Craig,

I've modified the e-mail that I sent you on Monday to address our conversation and the USFWS' requests. Please let this email serve as "response 2" to our original LOA application for BPXA's Liberty Development. Thanks for all your help and progressing the LOA.

1) Request for info on meetings with local communities regarding the Liberty Development:

There are no concerns voiced regarding takes of polar bears or Pacific walrus in our community stakeholder meetings to date. From this point on we will address the issue in our sessions regarding Liberty.

Here is a list of individuals and organizations that BP met or formally communicated with on the Liberty project within the past 6 months:

NSB Mayor Charlotte Brower and her Chief Administrative Officer, Jacob Adams and Chief of Staff Richard Camilleri (this meeting was with BPXA President, Janet Weiss)

NSB Planning Department Staff, Rhoda Ahmaogak , Gordon Brower and Ned Arey

NSB Planning Commission presentation in April – BPXA will provide ongoing updates to the Planning Commission

Isaac Nukapigak, Nuiqsut Whaling Captains Association and President of Kuukpik

Tom Olemaun, Native Village of Barrow

Doreen Lampe, Inupiat Community of the Arctic Slope

Bob Harcharek, Barrow City Mayor

Rex Rock, Sr.; Crawford Patkotak, Tara Sweeney, Butch Lincoln, Jeff Kinnevauk, ASRC Corporate Officers

Jessica LeFevre, Counsel for the Alaska Eskimo Whaling Commission.

We are also planning a few community based meetings in the near future:

We plan on July or early August meetings in Nuiqsut with the Native Village of Nuiqsut and the Whaling Captains Association.

We are also working on the best timing of meetings in Kaktovik. AEWK is currently in the process of hiring a new Executive Director, but the appointment is expected soon. When the new Executive Director is in place, BPXA will schedule sessions with the Whaling Captains/Association of Kaktovik.

Please note that scheduling meetings during this time is challenging given that many people in these communities are out hunting and then whaling for the subsistence foods. It is possible that meetings will be scheduled later to accommodate seasonal schedules and availability of people in the given communities.

2) Request to submit the Final Liberty report for the Spring 2013 Liberty Geotechnical investigation (LOA 13-07)

I can let you know that we observed no bears during the Spring 2013 Liberty Geotechnical work. There were two reports of sow and cub tracks in the general area. The information is summarized below, and sighting forms are attached. A larger report will be forthcoming and submitted by October 31, 2013 as required by LOA 13-07.

I believe that you and Dick checked out the location of these track sightings when you were in the field a few weeks after the initial observation. Dick told me that you guys thought it was more likely a sighting of Polar Bear tracks (1 animal) with wolf tracks nearby or following. Since the tracks were fairly degraded and the report was submitted to us as sow and cub tracks I've left the information as originally submitted. If you'd prefer something different, or the observation info modified for the final report please let me know.



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 20:30:00000.pdf... 4:4:30000.pdf 4:4:30000.pdf 4:4:30000.pdf

3/31/13	9:10	3/31/13	14:44	Pyles	Robert Pyles / Security	END	E of Liberty SDI	2	Sow w/cub	10 mins	5633 m	UNK	None	Cle 0
4/4/13	14:00	4/5/13	6:51	Drake	Trey Drake / North EA	Off-lease	Foggy Island	3	Sow w/cub, Adult	n/a	n/a	UNK	None	Cle -1

Hope this helps! Let me know if you need anything further or have additional questions. I'll be in on Friday and then on the slope next week (but checking e-mail periodically).

Happy Independence Day!

Chrissy May

**Chrissy May**

Wildlife Compliance Advisor

BP Exploration (Alaska), inc  
office: 907.564-4132



## **ATTACHMENT 7**





## BP Alaska Tier II Policy: Contractor HSE Training Requirements

Document Number: UPS-US-AK-ALL-ALL-HSE-DOC- 00793-2

<b>Authority:</b>	Safety Functional Team Lead	<b>Custodian:</b>	HSE Training Advisor
<b>Scope:</b>	BPXA Operating Assets	<b>Document Administrator:</b>	ANC Doc Administrator
<b>Issue Date:</b>	02/07/2003	<b>Issuing Dept:</b>	S&OR
<b>Revision Date:</b>	4/1/2013	<b>Control Tier:</b>	2
<b>Next Review Date:</b>	4/1/2016	<b>OMS Element:</b>	2.5, Working with Contractors

### 1.0 Purpose/Scope

The purpose of this policy is to describe the health, safety and environmental (HSE) training program expectations and requirements for companies who establish contracts with BP Exploration (Alaska) Inc., to provide services. This policy includes Contractor and BPXA personnel responsibilities, how BPXA communicates HSE training requirements to Contractors and how BPXA maintains compliance with applicable regulations and conformance with BP internal requirements with its Contractor workforce.

### 2.0 Key Definitions & Responsibilities

**BPXA** – abbreviation for BP Exploration (Alaska) Inc

**BPXA Contract Accountable Manager (CAM)** - BPXA employee accountable for confirming Contractor HSE requirements have been satisfied

**BPXA Job Representative** - BPXA employee responsible for overseeing the work the Contractor is performing.

**BPXA HSE Training Advisor** – BPXA employee who maintains the catalog of BP-specific HSE courses and the listing of BPXA Contractor HSE Training Requirements on behalf of BPXA's internal Technical and Compliance Authorities. The HSE Training Advisor also serves as a central point of contact within BPXA to provide guidance to Contractors on BP-specific training requirements.

**BPXA H&S PSCM Advisor** – BPXA employee who serves as advisor and liaison between the BPXA Health & Safety Department, the BPXA Procurement Supply Chain Management Department, and Contractors.

**Contractor** – Companies, firms, and individuals under a contractual relationship to supply BPXA with goods and/or services. Contractors are responsible through contractual and regulatory obligations to provide fully-trained and competent personnel.

**Contractor Personnel** – Individuals who work for Contractors or for their Subcontractors, who are responsible for completing all training as defined by their employer.

**ISNetworld** - A global resource for collecting and maintaining self-reported compliance and conformance records. [www.isnetworld.com](http://www.isnetworld.com)

**NSTC** – the North Slope Training Cooperative is a collaborative training organization developed to meet the general training needs for oil industry employees in the State of Alaska. Information is located at <http://nstc.apicc.org/index.htm>

**www.accessbptraining.com** - BPXA's Contractor training information website

### 3.0 Procedure/Process

BPXA expects Contractors to provide personnel who are fully-trained and competent, with all necessary licenses and certifications required to perform the specific work tasks defined in the terms of the contract, as

Control Tier: 2 – BPXA

Revision Date: 04/01/2013

Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-00793-2

Print Date: 7/9/2013

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stated in the BP Operating Management System (OMS) Manual, Section 2.5.3 [subset of 2.5: Working with Contractors]. The following section describes the Contractor's HSE training responsibilities and requirements.

### 3.1 Defining Contractor HSE Requirements

Job tasks are outlined in the job listing completed by the BPXA Job Representative. Contractors are responsible for reviewing the scope of work represented by the listed tasks and then determining for themselves which **BP-specific** and which **General Industry** training requirements apply to their Contractor personnel performing that work, including consideration of work location(s) and working conditions.

BP-Specific training requirements; including information on the specified audience, frequency, and source for each, is presented in the Appendices of this document. The controlled version of this policy document is stored in BPXA HSE Management System (DK). Contractors may request a copy from any BP representative and/or a copy may be viewed online at [www.accessbptraining.com](http://www.accessbptraining.com).

*Note: BPXA may provide a template of required and/or recommended HSE training courses for certain Agency Contractor positions. However compliance with regulatory and BPXA training requirements ultimately remains the responsibility of the Contractor.*

In most cases, training requirements are met by attending or completing certain training courses. For this policy, these courses are divided into two categories:

**BP-specific** courses are those which **do** contain proprietary content specific to BP processes or procedures; and as such cannot be sourced on the open market of training. A listing of BP-specific courses is attached to this document in Appendix A. This list provides a description of content, applicable audience, frequency and source(s) for each course. (Examples of BP-specific training are the BPXA Environmental Management System, BPXA Driving Safety Policies and the BPXA Oil Spill Prevention Regulations training program).

**General Industry** courses are those which **do not** contain BP-specific material and can be obtained by the Contractor from a variety of sources, including internal training departments, commercial training vendors and educational institutions. General Industry training requirements are typically driven by government regulatory entities such as the U.S. Dept. of Labor, U.S. Dept. of Transportation, the U.S. Environmental Protection Agency, the State of Alaska Department of Occupational Safety & Health, or by a BP corporate standard. General industry training requirements may also include certified or uncertified craft training; such as welding, scaffold erection, heavy equipment operation, Journeyman Electrician, etc. Examples of General Industry courses are attached to this document in Appendices B and C.

### 3.2 Completing Contractor HSE Requirements

BPXA is responsible for providing access to **BP-specific** training courses to Contractor personnel when required, per the business terms of the contract. Most BP-specific courses are available via computer-based training packages or in scheduled classroom training sessions. Information on how to access BP-specific courses is available at BPXA's Contractor training website, [www.accessbptraining.com](http://www.accessbptraining.com).

Contractors are responsible for providing all **general industry** training for their own workforce as required to perform the job tasks defined in their contracts with BP. Notwithstanding anything stated to the contrary in the actual business contract, all expenses related to training Contractor Personnel in accordance with this policy shall be borne by the Contractor.

### 3.3 Managing Contractor Training Records

The Contractor shall be responsible for keeping current training completion records for all Contractor personnel performing work for BPXA, and must maintain those training records for at least five (5) years after completion of Contractor's work. The Contractor's training program must, at a minimum, cover the Contractor's own personnel. Subcontractors may be either included under the primary Contractor's training program, or have their own program in place to ensure subcontractors meet the BPXA requirements.

When ISNetworld membership is required (per the definition in the BP HSE Exhibit, Section VIII.D), training completion records assuring conformance must be uploaded into ISNetworld and made available to BPXA.

Questions regarding ISN records and reporting should be directed to the BPXA H&S PSCM Advisor, via email to AKHSSEETraining@bp.com.

**3.4 Verifying Contractor HSE Requirement Records**

Contractor shall have personnel training records readily available for inspection or audit purposes by BPXA. BPXA Project Leads, HSE Advisors, Job Representative(s) or other staff may request documentation confirming that Contractor HSE training requirements have been satisfied.

*Note:* Completion of the NSTC Unescorted Course (listed in Appendix B) is demonstrated by the possession of a personalized “NSTC card.” NSTC cards must be available for inspection while traveling or working unescorted on the North Slope. Anything noted on the *inside* of the NSTC card is not considered proof of training.

**4.0 Key Documents/Tools/References**

BP Operating Management System (OMS) [manual], Section 2.5.3 [subset of 2.5: “Working with Contractors”]

BPXA HSE Exhibit for Contracts, DK Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-01779-2

BPXA Contractor DOT Operator Qualification Process, DK document # UPS-US-ALL-ALL-DOT-DOC-00105-A

BPXA ISN DOT OQ Guidelines, DK document # UPS-US-AK-ALL-ALL-DOT-DOC-00106-A

BPXA Driving Safety BPXA Practice, DK Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-01333-2

**Revision Log**

Revision Date	Authority	Custodian	AMOC	Revision Details
March 18, 2013	Michele Jones	John Larroque	AMOC-All Alaska-1140	<p>Major re-write of policy section and course listings to increase clarity for Contractor audience; including the following revisions:</p> <ul style="list-style-type: none"> <li>• Revised document title (to match language used in “HSE Exhibit” of PSCM contracts);</li> <li>• Updated document custodian</li> <li>• Modified document format and order of course listings (tables 1 &amp; 2) with new Appendices A, B &amp; C, &amp; D for greater clarity of the separation between BP-specific and general industry courses</li> <li>• Added OMS and DOT OQ references</li> <li>• Added more detail to each course description;</li> <li>• Removed discontinued courses</li> <li>• Removed unnecessary Appendices (NSTC course list, CoW Made Simple)</li> <li>• Updated Oil Handler audience definition</li> </ul> <p>Removed previous revision history due to extensive length. This info retained in previous archived version.</p>

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- 6 BP Alaska Control of Work: Permit to Work [HSEHAS215]
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- 6 BP Alaska East Operating Area Facility Fire Equipment CBT [HSEFIR003]
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- 22 Additional audience clarification for BPXA course: HSEHAS038 – Oil Spill Prevention Regulations Training

## Appendix A: BP-Specific HSE Courses

<b>2010 BP ASH (Alaska Safety Handbook) Rollout CBT [HSEHAS222]</b>	
Provides an introduction the 2010 BP ASH (Alaska Safety Handbook), including an introduction to BP's Control of Work program, as well as other BP-specific safety information and policies. Most topics include references to BP Alaska- specific policies and procedures.	
<b>Audience:</b> All NSTC card holders who attended the NSTC-01 Unescorted class <u>prior to January 1, 2010</u> need this course as an update to their NSTC Unescorted training.	
<b>Frequency:</b> Initial training only.	
<b>Type/Source:</b> Computer-based or classroom training, available for download directly from the <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> website.	<b>Duration:</b> 60 minutes
<i>Note: The Unescorted training package was updated to include this information as of 1/1/2010).</i>	

<b>BP Alaska Control of Work: Level 1 Risk Assessment (L1RA) [HSEHAS213]</b>	
Provides an introduction to BPXA's Control of Work program followed by detailed instruction on energy source hazard recognition methodology.	
<b>Audience:</b> Required for Contractor personnel who request, issue, or approve BPXA Work Permits.	
<b>Frequency:</b> Initial training prior to any permit application.	
<b>Type/Source:</b> Classroom training. This course may be obtained by attending classroom sessions offered by BPXA, sessions taught by third-party training vendor instructors trained to deliver this course; or by submitting a contractor trainer to become certified by BP to deliver this course, to then teach their own workforce. Please refer to the BP training schedule posted at <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> .	<b>Duration:</b> 4 hours
<i>For BP Control of Work questions and information, email <a href="mailto:AKOPSOMSCOWSpecialist@bp.com">AKOPSOMSCOWSpecialist@bp.com</a>.</i>	

<b>BP Alaska Control of Work: Level 2 Risk Assessment (L2RA) [HSEHAS214]</b>	
Covers the methodology used to <b>lead</b> a BPXA Level 2 risk assessment.	
<b>Audience:</b> Required for Contractor personnel who will lead a BPXA Level 2 Risk Assessment, when required as part of a project Authorization to Proceed (ATP), and or as part of an application for a BPXA work permit.	
<b>Frequency:</b> Initial training prior to any applicable project or permit application. Repeat as needed to keep knowledge and skills current.	
<b>Type/Source:</b> Classroom training. Please email <a href="mailto:AKOPSOMSCOWSpecialist@BP.com">AKOPSOMSCOWSpecialist@BP.com</a> to request this training.	<b>Duration:</b> 2 hours

Continued on the next page

BP Alaska Control of Work: Permit to Work [HSEHAS215]	
Describes BPXA's various types of work permits, permit-related policies and detailed instructions on how to complete them.	
<b>Audience:</b> Required for Contractor personnel who request, issue, or approve a BPXA Work Permit	
<b>Frequency:</b> Initial training required prior to any permit application. Refresh as needed to keep knowledge and skills current.	
<b>Type/Source:</b> Classroom training. This course may be obtained by attending classroom sessions offered by BPXA, sessions taught by third-party training vendor instructors trained to deliver this course; or by submitting a contractor trainer to become certified by BP to deliver this course, to then teach their own workforce. Please refer to the BP training schedule posted at <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> .	<b>Duration:</b> 2 hours

BP Alaska Driving Safety Policies CBT [HSEDRV001]	
Covers general information, policies, and rules regarding driving within the BPXA North Slope lease areas, and/or while driving anywhere to perform business on behalf of BPXA.	
<b>Audience:</b> Contractor personnel who drive any motorized vehicle within BP's North Slope operational area, contractors who drive a vehicle owned or leased by BP Alaska, and contractors who drive a personal or company vehicle to perform business <i>on behalf of</i> BP Alaska.	
<b>Frequency:</b> Initial training prior to driving on the North Slope or driving to perform business on behalf of BP Alaska. Repeat every 36 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 45 minutes
<i>Note: This course replaces HSEHAS172 – "BP Driving Safety Awareness". Those who have taken HSEHAS172 previously should take this new course the next time they are due (3 years from last date taken).</i>	

BP Alaska East Operating Area Facility Fire Equipment CBT [HSEFIR003]	
This course provides instructions on how to identify and use the unique fire suppression and extinguishing equipment provided at the East Operational Area (EOA) facilities of Greater Prudhoe Bay.	
<b>Audience:</b> This course is required for Contractor personnel who are assigned to full-time work in operations or maintenance functions in the following GPB EOA facilities: Flow Stations 1, 2 & 3, COTU, and GPMA/Lisburne Processing Center.	
<b>Frequency:</b> Initial training upon assignment to an EOA facility, and prior to commencement of fire fighting responsibilities. Repeat every 12 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 30 minutes

Continued on the next page

### BP Alaska Environmental Management System (EMS) & Compliance Training CBT [HSEENV001]

This course provides awareness-level training on BPXA's EMS, Safety EMS (SEMS) and Operating Management System (OMS); plus basic-level training on spill prevention, DOT pipelines, North Slope wildlife and Level 1 Polar Bear Awareness.

**Audience:** All Contractor personnel who visit or perform work unescorted, physically within BPXA's North Slope on and offshore oilfield lease areas.

**Frequency:** Initial training prior to unescorted travel on the North Slope. Repeat every 12 months.

**Type/Source:** Computer-based training, available over the internet from [www.accessBPtraining.com](http://www.accessBPtraining.com), or on compact disc.

**Duration:** 30 minutes

*Notes: This course is updated approximately every 6 months. Please check [www.accessBPtraining.com](http://www.accessBPtraining.com) for the most current version.*

### BP Alaska Hazard Communication (BP-Specific) CBT [HSEHAS210]

This course provides the employee information on hazardous chemicals that may exist in their work area, the system developed to communicate their physical and health hazards, how to recognize the presence or release of a hazardous chemical, the hazard control methods used to protect employees in their work area, the written hazard communication program and the State of Alaska Physical Agent Data Sheet requirements.

**Audience:** All Contractor personnel who handle or otherwise could be exposed to hazardous materials or physical occupational health hazards while performing work on BP premises.

**Frequency:** Initial training, with refreshers when there are significant changes to the BPXA Hazard Communication Program.

**Type/Source:** Computer-based training, available over the internet from [www.accessBPtraining.com](http://www.accessBPtraining.com), or on compact disc.

**Duration:** 30 minutes

*Note – This course will be revised in 2013 to include information on the Global Harmonized System.*

### BP Alaska ENHANCED Level 1 Polar Bear Awareness [HSEENV060]

Provides additional training on polar bears (habitat, behaviours, etc.), applicable government regulations, and applicable BPXA policies.

**Audience:** Contractor personnel who work on projects or operations at specific locations where there is increased likelihood of encountering a polar bear during the course of work.

**Frequency:** Initial training prior to commencement of outdoor work activities. Repeat every 12 months.

**Type/Source:** Classroom training. Contact the BPXA Wildlife Compliance Advisor or a BPXA North Slope Environmental Advisor to request this training.

**Duration:** 30 minutes

*Notes: Basic, Level 1 Polar Bear awareness training is provided as part of the BPXA Environmental Management System course (HSEENV001), listed in this Appendix.*

Continued on the next page

BP Alaska Level 2 Polar Bear Hazing (without firearms) [HSEENV062]	
Provides training on non-firearm polar bear hazing techniques.	
<b>Audience:</b> Contractor personnel authorized by the BPXA Wildlife Compliance Authority and BPXA Security Manager to haze polar bears with non-firearms based hazing techniques (North Slope Security personnel and Approved Third Party Bear Guards)	
<b>Frequency:</b> Initial training prior to commencement of outdoor work activities at applicable locations. Repeat every 12 months.	
<b>Type/Source:</b> Classroom training. Contact the BPXA Wildlife Compliance Advisor or a BPXA North Slope Environmental Advisor to request this training.	<b>Duration:</b> 4 hours
<i>Notes: Pre-requisite: Level 1 Polar Bear Awareness (included in HSEENV001 – EMS)</i>	

BP Alaska Level 3 Polar Bear Hazing (including firearms) [HSEENV064]	
Provides training on polar bear hazing techniques including the use of firearms. Includes both classroom and firearms training.	
<b>Audience:</b> Contractor personnel authorized by the BPXA Wildlife Compliance Authority and BPXA Security Manager to haze polar bears including firearms based hazing techniques (North Slope Security personnel and Approved Third Party Bear Guards)	
<b>Frequency:</b> Initial training prior to commencement of outdoor work activities at applicable locations. Repeat every 12 months.	
<b>Type/Source:</b> Classroom & firing range training. Contact the BPXA Wildlife Compliance Advisor or a BPXA North Slope Environmental Advisor to request this training.	<b>Duration:</b> 8 hours
<i>Notes: Prerequisite: Level 2 Polar Bear Hazing. Includes 4 hours firearms training at firing range.</i>	

BP Alaska Level 3 Grizzly Bear / Fox Hazing [HSEENV066]	
Provides training on grizzly bear and fox hazing techniques, including the use of firearms. Includes both classroom and firearms training.	
<b>Audience:</b> Contractor personnel authorized by the BPXA Wildlife Compliance Authority and BPXA Security Manager to haze grizzly bears and foxes including firearms based hazing techniques.	
<b>Frequency:</b> Initial training prior to commencement of outdoor work activities at applicable locations. Repeat every 12 months.	
<b>Type/Source:</b> Classroom & firing range training. Contact the BPXA Wildlife Compliance Advisor or a BPXA North Slope Environmental Advisor to request this training.	<b>Duration:</b> 8 hours
<i>Notes: Includes 4 hours firearms training at firing range.</i>	

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<b>BP Alaska Managing Accumulation Areas for Hazardous Wastes, Recyclable Materials, and Universal Wastes (SAA, RAA, UAA) CBT [HSEENV004]</b>	
Covers Federal and State government oil spill prevention regulations related to the inspection, maintenance and operation of oil storage and transfer equipment.	
<b>Audience:</b> Required for Contractor personnel who are designated as the "Operator in Control" of satellite accumulation areas of hazardous waste, recyclable materials and universal wastes in BP facilities or at work sites within the BPXA oilfield lease areas.	
<b>Frequency:</b> Initial training prior to commencement of O.I.C. duties. Repeat every 12 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 30 minutes

<b>BP Alaska Milne Point Unit F-Pad Environmental Awareness CBT [HSEENV006]</b>	
Covers the sensitive coastal environmental aspects and wildlife located at Milne Point Unit's F-Pad.	
<b>Audience:</b> Required for Contractor personnel who are assigned to Milne Point Unit, or Contractors who perform work at MPU F-Pad location.	
<b>Frequency:</b> Initial training prior to work at MPU F-Pad. Repeat every 12 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 15 minutes
<i>Notes: Classroom sessions are available upon request from the MPU Environmental Advisor.</i>	

<b>BP Alaska Milne Point Unit Well B-50 Underground Injection Control CBT [HSEENV041]</b>	
Covers the purpose, permits and regulatory restrictions of the MPU B-50 underground waste injection well. Also covers MPU waste streams and the MPU Waste Analysis Plan (WAP).	
<b>Audience:</b> Required for Contractor personnel who are assigned the duty of determining eligible wastes for injection in Well B-50, responsible for testing or maintaining the mechanical integrity of Well B-50, or who have been assigned compliance tasks related to Well B-50 in the BPXA Compliance Task Manager (CTM) system.	
<b>Frequency:</b> Initial training prior to any work involving MPU Well B-50. Repeat every 24 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 30 minutes
<i>Notes: Classroom sessions are available upon request from the MPU Environmental Advisor.</i>	

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### BP Alaska North Slope Asbestos Awareness CBT [HSEDOJ002]

The intent of this training is to protect the health of oilfield workers by explaining the potential health hazards of asbestos containing materials which may be present in the North Slope oilfield camps, shops and production facilities.

**Audience:** Required for Contractor personnel who visit or work at BP Exploration's Alaska North Slope oil fields who may in the course of their assigned duties, intentionally or unintentionally disturb asbestos containing materials. ***This course requirement is part of a 3-year legal settlement between BP and the U.S. Dept. of Justice. No substitutions allowed.***

**Frequency:** Initial training prior to commencing applicable work (defined above) on the North Slope. Repeat every 12 months thereafter.

**Type/Source:** Computer-based training, available over the internet from [www.accessBPtraining.com](http://www.accessBPtraining.com), or on compact disc.

**Duration:** 45 minutes

*Notes: This course is Awareness-level only – enough to help personnel understand the potential health threats of asbestos and instruction on how to avoid casual exposure in the work area. Personnel who work with asbestos containing materials require additional, extensive asbestos handling training.*

### BP Alaska Oil Spill Prevention Regulations Training CBT [HSEENV038]

Covers Federal and State government oil spill prevention regulations related to the inspection, maintenance and operation of oil storage and transfer equipment. Includes student-targeted modules on Oil Spill Prevention Regulations, Oil Tanks, Oil Tank Inspections, Secondary Containment, Fluid Transfers and Pipelines.

**Audience:** Required for Contractor personnel whose assigned duties involve operation, inspection or maintenance of oil storage or oil transfer equipment. See additional guidance in Appendix D.

**Frequency:** Initial training prior to "oil handling" work. Repeat every 12 months thereafter.

**Type/Source:** Computer-based training, available over the internet from [www.accessBPtraining.com](http://www.accessBPtraining.com), or on compact disc. Specific modules may also be taught in a classroom setting by BP Environmental Advisors.

**Duration:** 60 minutes

*Notes: A more-detailed definition of the course audience is available in Appendix E of this document.*

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BP Alaska Pipeline Consent Decree (PCD) Overview CBT [HSEDOJ001]	
<p>This course provides BP employees and Contractors with an understanding of pipeline integrity assurances mandated by the BP Alaska Pipeline Consent Decree (PCD). The PCD is a legal agreement between by BPXA and agencies of the US Government (EPA, DOT, and DOJ). The PCD pertains to well lines, flow lines, and produced water lines used to move liquid hydrocarbons between the well pads and the North Slope Flow Stations and Gathering Centers. The intent of this training is to provide an understanding of pipeline assurance as it pertains to the PCD.</p>	
<p><b>Audience:</b> The course audience consists of officers, employees, and agents whose duties might reasonably include compliance with any provision of PCD, as well as any Contractors retained to perform work required under the PCD. The following job categories are examples of workers who may require this training: jobs involving the design, construction, operation, leak detection, inspection, or maintenance of the applicable pipelines in the BP lease areas of Greater Prudhoe Bay. If you are unsure if you are required to take this training, please contact the Pipeline Consent Decree Coordinator at (907) 564-5837.</p>	
<p><b>Frequency:</b> Initial training only</p>	
<p><b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a>, or on compact disc.</p>	<p><b>Duration:</b> 45 minutes</p>

BP Alaska RCRA Hazardous Waste – BASIC Level [HSEENV002]	
<p>Provides training to employees so they are familiar with proper waste management and emergency response procedures relevant to their responsibilities during normal and emergency situations, including instruction on hazardous waste management procedures and contingency plan implementation.</p>	
<p><b>Audience:</b> Required for Contractor personnel who are responsible for centralized hazardous waste accumulation, recycling, or arranging for disposal within BPXA oilfield lease areas or facilities; and contractors who serve as BPXA North Slope Environmental Advisors.</p>	
<p><b>Frequency:</b> Initial training prior to commencement of duties. Repeat every 12 months thereafter.</p>	
<p><b>Type/Source:</b> Classroom training. Please refer to the BP training schedule posted at <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a>.</p>	<p><b>Duration:</b> 60 minutes</p>

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### BP Alaska RCRA Hazardous Waste – ADVANCED Level [HSEENV003]

The RCRA Advanced course may consist of in-depth training on hazardous waste packaging and manifesting, and/or in-depth training on advanced RCRA topics, EPA's developing RCRA issues and regulations, BPXA waste management performance and continuous improvement, waste minimization, and case studies and waste management planning updates.

**Audience:** Required for Contractor personnel who are responsible for centralized, onsite, management packaging and transportation of hazardous waste; and contract BPXA N. S. Environmental Advisors.

**Frequency:** Initial training prior to commencement of duties. Repeat every 12 months thereafter.

**Type/Source:** Classroom training. Please refer to the BP training schedule posted at [www.accessBPtraining.com](http://www.accessBPtraining.com).

**Duration:** 3-5 hours

### BP Alaska Safety and Environmental System (SEMS) Overview CBT [HSEHAS249]

This course covers the BPXA Safety and Environmental Management System (SEMS) required by the U.S. Bureau of Safety & Environmental Enforcement (BSEE) for offshore oil exploration and production operators. The SEMS requirement is intended to promote safety and environmental protection during offshore operations in the Outer Continental Shelf. It addresses the identification and management of safety hazards and potential environmental impacts.

**Audience:** This course is required for Contractor personnel who work in Wells, Operations, and/or Resource within the BSEE jurisdiction. Currently BSEE covers 7 specific wells drilled and operated from Northstar Island (NS-06, NS-09, NS-12, NS-22, NS-30, NS-32, and NS-34. Future extended-reach wells and all exploratory work including seismic that occur in the Outer Continental Shelf will also be under BSEE's jurisdiction.

**Frequency:** Initial training prior to commencement of working falling under BSEE/ jurisdiction. Repeat every 12 months thereafter.

**Type/Source:** Computer-based training, available over the internet from [www.accessBPtraining.com](http://www.accessBPtraining.com), or on compact disc.

**Duration:** 30 minutes

### BP Safety Observations & Conversations for Leaders (SoC) [Global-HSESAF000]

SoC is designed to equip leaders with the skills necessary to address both personal and process safety hazards, using a behavioural safety approach.

**Audience:** Certain Contractor personnel in leadership roles may be individually requested to attend this course, as determined by their BPXA Job Representative, SPOC or CAM.

**Frequency:** Initial training plus follow-up SoC Coaching session.

**Type/Source:** Initial course is classroom-based, followed by a separate SoC coaching session (HSESAF001) in office or field locations. Please refer to the BP training schedule posted at [www.accessBPtraining.com](http://www.accessBPtraining.com).

**Duration:** 8 hours classroom + optional coaching session

BP Alaska Stormwater Management CBT [HSEENV011]	
Covers the requirements and responsibilities of Federal government Stormwater Pollution Prevention Plans applicable to BPXA North Slope oilfield lease areas, plus awareness of authorized non-stormwater discharges.	
<b>Audience:</b> Required for Contractor personnel who are responsible for implementing any of the requirements of the SWPPP at their physical work location.	
<b>Frequency:</b> Initial training prior to commencement of Stormwater Management duties. Repeat every 12 months thereafter.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> , or on compact disc.	<b>Duration:</b> 30 minutes

BP Alaska Waste Management Certification (Redbook) [HSEENV005]	
Training for BPXA employees and contractors regarding waste management, disposal and recycling operations; including applicable legal and other requirements, roles and responsibilities, and tools available for assistance. This course will certify personnel who generate, transport, or receive wastes which will be managed within BPXA or Conoco Phillips lease boundaries on the North Slope of Alaska and at Cook Inlet facilities.	
<b>Audience:</b> Required for Contractor personnel who generate, transport, or receive waste within the BPXA North Slope oilfields and are required to complete and or sign North Slope Waste Manifests.	
<b>Frequency:</b> Initial training prior to commencement of Waste Management duties. Repeat every 24 months thereafter.	
<b>Type/Source:</b> Classroom training. Please refer to the BP training schedule posted at <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> .	<b>Duration:</b> 3.5 hours

**Courses which have been REPLACED or DISCONTINUED since the last revision:**

- HSEHAS172 - BPXA Driving Safety Awareness Program (replaced by HSEDRV001)
- HSEHAS154 – Defensive Driving BASIC (replaced by HSEDRV002)
- HSESAF020 – Defensive Driving BASIC Refresher (replaced by HSEDRV002)
- HSEHAS155 – Defensive Driving ADVANCED (replaced by new series – see next section)
- HSEHAS157 – BP Tiredness & Fatigue (re-numbered HSEDRV008)
- HSEHAS213 – Control of Work – Level 1 Risk Assessment – Repeat/refresher requirement discontinued
- HSEHAS216 – Control of Work – BPXA Energy Isolation Standards (requirement discontinued)

**End of Section**

## Appendix B: BP-Required General Industry Courses

The following general industry courses may be required of BPXA Contractors to conform to BP Global (corporate-level) and/or BP Alaska (local-level) training requirements, depending on the scope and/or location of the contracted work.

"General Industry" courses are defined as those which do not contain BPXA-specific policies or procedures. General Industry training may be developed internally or sourced on the open market through commercial training vendors or government agencies. **As such, training expenses related to general industry courses will not be reimbursed by BPXA, unless specifically authorized in writing in the actual business contract.**

BP course code numbers are provided only as a reference for reporting purposes, and should not be interpreted as an indication that these are "BP-specific" courses.

In some cases, BP-produced versions of general industry courses may be available to contractors. However, Contractors are also welcome to substitute general-industry training from other sources, as desired. One such source of general industry training is the NSTC.

The North Slope Training Cooperative (NSTC) is a collaborative effort funded by BP and other major oil companies operating in Alaska and supported by an alliance of Contractor companies. NSTC aims to develop and maintain high quality, standardized health, safety and environmental training programs for their employee and Contractor work force at industrial sites on the North Slope and throughout Alaska.

With the exception of the NSTC Unescorted course listed below, BPXA endorses but does not require Contractors to use NSTC-branded courses for general industry training.

NSTC 01 – NORTH SLOPE UNESCORTED COURSE [HSEHAS049]	
This course provides a basic orientation to the North Slope oilfield lease areas, including modules on: Camps & Safety Orientation, Hazard Communication (generic), HAZWOPER Awareness, Personal Protective Equipment (generic), Alaska Safety Handbook/BP ASH and Environmental Excellence.	
<b>Audience:</b> The Unescorted program must be completed by all employees who perform work within the North Slope fields and facilities for NSTC member companies (including BPXA), who need to travel and work without a designated escort. Visitors to the North Slope facilities do not require this course if they will have a designated, badged escort for the entire duration of their visit.	
<b>Frequency:</b> Initial training required prior to application for a BPXA North Slope oilfield unescorted access badge. There is no set schedule for refreshers, however, NSTC issues policy updates periodically and additional training may be necessary to maintain currency and access. The most recent update was issued on 1/1/2010 (see BP ASH 2010 Rollout course listed in Appendix A). Please contact NSTC for further information on updates to NSTC materials.	
<b>Type/Source:</b> The NSTC courses are taught by NSTC-certified internal company trainers and by NSTC-certified trainers working for third-party training providers. Provider information is available at: <a href="http://nstc.apicc.org/index.htm">http://nstc.apicc.org/index.htm</a>	<b>Duration:</b> 8 HOURS
<i>Notes: Upon completion of this course students will be issued an "NSTC Card", which serves as proof of training for this course [only]. This card must be presented to the BPXA badging office when applying for an unescorted access badge for the BPXA oilfield lease areas, and may be requested by North Slope Security personnel at field entry/exit checkpoints.</i>	

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HYDROGEN SULFIDE (H <sub>2</sub> S) & IRON SULFIDE (FeS) AWARENESS [HSEHAS007]	
<p>This course is provided to ensure that personnel working in H<sub>2</sub>S designated areas on the North Slope can recognize the hazardous characteristics of H<sub>2</sub>S and FeS, and can correctly apply the standards, procedures and emergency response practices for potential H<sub>2</sub>S or FeS exposures. The class must cover the physical and health characteristics of the H<sub>2</sub>S &amp; FeS vapors, the effects of various concentration levels on humans, exposure limits, equipment and alarms which identify specific levels of H<sub>2</sub>S concentrations, proper notification procedures for an H<sub>2</sub>S emergency, appropriate evacuation and rescue procedures emergency treatment for a person exposed to high levels of H<sub>2</sub>S, and safety precautions for working in areas where H<sub>2</sub>S may be present.</p>	
<p><b>Audience:</b> Any BPXA employee or contractor personnel with long term or temporary work assignment on the North Slope who must work unescorted in H<sub>2</sub>S designated facilities.</p>	
<p><b>Frequency:</b> Initial training required prior to access to any North Slope fields or facilities where H<sub>2</sub>S or F<sub>2</sub>S may be present. Refresher training is required every three years thereafter.</p>	
<p><b>Type/Source:</b> The NSTC version of this course may be taught by NSTC-certified internal company trainers and by NSTC-certified trainers working for third-party training providers. Provider information is available at: <a href="http://nstc.apicc.org/index.htm">http://nstc.apicc.org/index.htm</a>. Alternately, Contractors may substitute other, equivalent courses of their choosing.</p>	<p><b>Duration:</b> 60 MINUTES</p>
<p><i>The NSTC version is preferred for initial training, and is typically scheduled with and taught immediately following the NSTC Unescorted courses. Proof of completion is noted on the front of the NSTC Card.</i></p>	

DRIVER TRAINING: DEFENSIVE DRIVING – BASIC LEVEL [HSEDRV002]	
<p>Basic defensive driving training, including coverage of the following topics: driving statistics, preparing for the trip, utilizing your vision effectively, making the correct decisions based on the information gathered, taking the correct action based on the information gathered and the decision made.</p>	
<p><b>Audience:</b> Contractor personnel who drive a vehicle owned or leased directly by BP Alaska or Contractor personnel who drive a personal or company vehicle to perform business <u>on behalf of</u> BP Alaska.</p>	
<p><b>Frequency:</b> Initial training prior to driving on the North Slope or driving to perform business for or on behalf of BP Alaska. Repeat every 36 months.</p>	
<p><b>Type/Source:</b> BPXA offers a locally-produced, computer-based defensive driving training course, available through the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a>, or on compact disc. Alternately, Contractors may substitute other, equivalent defensive driving courses of their choosing, including but not limited to: Smith System 5-Keys, National Safety Council DDC, Pure Safety or Spencer McDonald's Thinking Driver.</p>	<p><b>Duration:</b> BPXA CBT = 60 MINUTES.</p>
<p><i>Note: This course replaces HSESAF020 and HSEHAS154. Contractors who choose to use the BPXA Defensive Driving Basic-Level course and have taken HSESAF020/HSEHAS154 previously should take this new course the next time they are due (3 years from last date taken). Please refer to Appendix D for more information.</i></p>	

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DRIVER TRAINING: HIGHER MILEAGE CLASS [HSEDRV003, NSTC-31 EXCERPTS]	
<p>Classroom driver training including the following topics: introduction, statistics, backing, cell phones, communication, fatigue, following distance, hazards, signs and intersections, seat belts, vehicle inspections, road conditions. The BPXA version consists of <u>certain sections</u> of BPXA's "Drive Alaska-The North Slope" driver training program.</p>	
<p><b>Audience:</b> Contractor personnel who drive a light vehicle (&lt;7700 lbs.) owned or leased directly by BP Alaska, or who drive a personal or company light vehicle <i>to perform business on behalf of BP Alaska, more than 2000 miles per year.</i></p>	
<p><b>Frequency:</b> Initial training for applicable contractor personnel hired during 2013 and onwards. (Existing North Slope contractors who are current in the BP driver training requirements are exempt from this course requirement.)</p>	
<p><b>Type/Source:</b> This training may be obtained by attending sessions of the "Drive Alaska-The North Slope" class offered by BPXA, Purcell Security (for BPXA, North Slope only), certain NSTC-certified instructors or contractor trainers who were trained by BPXA; or by submitting an equivalent course to the BPXA Safety Department for approval. Please email <a href="mailto:AKHSSEetraining@bp.com">AKHSSEetraining@bp.com</a> for more information.</p>	<p><b>Duration:</b> 3.5 hours</p>
<p><i>Note: This course does <b>not</b> replace the need to complete HSEDRV001 &amp; HSEDRV002, also. Contractors wishing to have their own instructors trained to teach this course should contact <a href="mailto:AKHSSEetraining@bp.com">AKHSSEetraining@bp.com</a>. Please refer to Appendix D for more information.</i></p>	

DRIVER TRAINING: PROFESSIONAL-LEVEL CLASS [HSEDRV004, NSTC-31]	
<p>Classroom-based driver training program including the following topics: introduction, statistics, professionalism, courtesy, attitude, pre and post-trip inspections, impairment, vision skills review, speed, backing, cell phones, communication, following distance, hazards, signs and intersections, seat belts, vehicle inspections, road conditions and rollover awareness. BPXA version consists of all sections of BPXA's "Drive Alaska-The North Slope" driver training program.</p>	
<p><b>Audience:</b> Contractor Professional Drivers (Heavy-vehicle (&gt;7,700 lbs.) drivers, bus drivers, chauffeurs, etc.] who drive vehicles owned or leased by BP Alaska; and/or those who drive more than 15% of their working hours (or pro-rata time for any part of the year) to perform business <i>on behalf of BP Alaska.</i></p>	
<p><b>Frequency:</b> Initial training for applicable contractor personnel hired during 2013 and onwards. (Existing North Slope Professional-level drivers who are current in the [former] BP Advanced-level driver training requirements are exempt from this particular course requirement.)</p>	
<p><b>Type/Source:</b> This training may be obtained by attending sessions of the "Drive Alaska-The North Slope" class offered by BPXA, Purcell Security (for BPXA, North Slope only), certain NSTC-certified instructors or contractor trainers who were trained by BPXA; or by submitting an equivalent course to the BPXA Safety Department for approval. Please email <a href="mailto:AKHSSEetraining@bp.com">AKHSSEetraining@bp.com</a> for more information.</p>	<p><b>Duration:</b> 7 HOURS</p>
<p><i>This course replaces the classroom portion of HSEHAS155 – Defensive Driving Advanced. This course does <b>not</b> replace the need to complete HSEDRV001 &amp; HSEDRV002, also. Contractors wishing to have their own instructors trained to teach this course should contact <a href="mailto:AKHSSEetraining@bp.com">AKHSSEetraining@bp.com</a>. Please refer to Appendix D for more information.</i></p>	

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DRIVER TRAINING: ON-ROAD DRIVER EVALUATION [HSEDRV005]	
Behind-the-wheel driving skills evaluation and coaching.	
<b>Audience:</b> Contractor Higher-Mileage or Professional-level drivers (see definitions listed in the Higher Mileage and Professional-level courses)	
<b>Frequency:</b> Initial training for applicable contractor personnel hired during 2013 and onwards, prior to driving BP owned or leased vehicles. (Existing North Slope drivers who are current in the [former] BPXA driver training requirements are due upon their next BP Driving Safety Policy CBT training due date). Repeat every 3 years thereafter.	
<b>Type/Source:</b> This training may be obtained by attending sessions offered by BPXA, Purcell Security (for BPXA, North Slope only), certain NSTC-certified instructors or contractor trainers who were trained by BPXA, third-party driver training vendors; or by submitting an equivalent course to the BPXA Safety Department for approval. Please email <a href="mailto:AKHSSETraining@bp.com">AKHSSETraining@bp.com</a> for more information.	<b>Duration:</b> 30-60 minutes per student
<i>This course replaces the on-road evaluation portion of HSEHAS155 – Defensive Driving Advanced. This course does <b>not</b> replace the need to complete HSEDRV001 &amp; HSEDRV002, also. Contractors wishing to have their own instructors trained to teach this course should contact <a href="mailto:AKHSSETraining@bp.com">AKHSSETraining@bp.com</a>. Please refer to Appendix D for more information.</i>	

DRIVER TRAINING: Driver Tiredness & Fatigue Awareness [HSEDRV008]	
Classroom training on the effect of and mitigation for human tiredness and fatigue on driving.	
<b>Audience:</b> Contractor Professional Drivers [ heavy-vehicle (>7,700 lbs.) drivers, bus drivers, chauffeurs] who drive vehicles owned or leased by BP Alaska; and/or those who drive more than 15% of their working hours (or pro-rata time for any part of the year) performing business <i>on behalf of BP Alaska</i> .	
<b>Frequency:</b> Initial training for applicable contractor personnel hired during 2013 and onwards prior to driving BP owned or leased vehicles. (Existing North Slope drivers who are current in the [former] BPXA driver training requirements are due upon their next BP Driving Safety Policy CBT training due date). Repeat every 3 years thereafter.	
<b>Type/Source:</b> This training may be obtained by attending sessions offered by BPXA, Purcell Security (for BPXA, North Slope only), certain NSTC-certified instructors or contractor trainers who were trained by BPXA, third-party driver training vendors; or by submitting an equivalent course to the BPXA Safety Department for approval. Please email <a href="mailto:AKHSSETraining@bp.com">AKHSSETraining@bp.com</a> for more information.	<b>Duration:</b> 2 hours
<i>This course replaces the T&amp;F portion of HSEHAS155 – Defensive Driving Advanced, and the stand-alone HSEHAS157 – BP Driving Tiredness &amp; Fatigue Awareness Training course. This course does <b>not</b> replace the need to complete HSEDRV001 &amp; HSEDRV002, also. Contractors wishing to have their own instructors trained to teach this course should contact <a href="mailto:AKHSSETraining@bp.com">AKHSSETraining@bp.com</a>.</i>	

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BEAR SPRAY TRAINING [HSEENV067]	
Provides training on the safe handling and use of pepper sprays as a bear deterrent.	
<b>Audience:</b> Contractor personnel requesting and checking out chemical spray for bear protection from the Environmental Department.	
<b>Frequency:</b> Initial training prior to commencement of outdoor work activities.	
<b>Type/Source:</b> Computer-based training, available over the internet from <a href="http://www.accessBPtraining.com">www.accessBPtraining.com</a> . Contractors may substitute their own versions of this training if approved by the BPXA Wildlife Compliance Advisor. In-person training may also be available from the State of Alaska Department of Fish & Game.	<b>Duration:</b> 15 MINUTES
<i>Notes: Personnel must show proof of training before bear spray will be issued.</i>	

BIRD CAPTURE AND STABILIZATION TRAINING [HSEENV068]	
<b>Audience:</b> Alaska Clean Seas Contractor personnel performing bird capture and stabilization work under ACS permit #MB772518-0	
<b>Frequency:</b> INITIAL ONLY.	
<b>Type/Source:</b> CONTACT ALASKA CLEAN SEAS OR THE BPXA WILDLIFE COMPLIANCE ADVISOR TO REQUEST THIS TRAINING.	<b>Duration:</b> 2 DAYS

End of Section

## Appendix C: General Industry Courses

*Listed below are general industry Health, Safety, or Environmental courses which are not specifically required by BP Alaska. These may, however, be required by various government regulatory bodies; such as OSHA, EPA, AKOSH, etc., based on job tasks contracted out by BP Alaska. This is by no means an exhaustive list of all possible training requirements – it only serves as a sample list of general industry training topics and courses.*

*It is the responsibility of the Contractor to review the scope of work requested by BP Alaska and determine whether any general industry training requirements apply to their personnel performing the work. This determination is ultimately between the regulatory body and the Contractor employer. In certain situations, BP may list certain general industry training courses as minimum “qualifications” necessary to work on particular jobs, but the requirement for the training remains with the applicable regulatory bodies.*

*As stated previously, expenses related to provision of general industry training will not be reimbursed by BPXA, unless specifically authorized in writing in the actual business contract.*

*In some cases, BP-produced versions of general industry courses may be available to contractors. However, Contractors are also welcome to substitute general-industry training from other sources, as desired.*

Asbestos – 40 Hour  
 Asbestos – Awareness  
 Asbestos - Inspection  
 Asbestos Gasket Removal/handling  
 Atmospheric Testing Devices / Gas Testing  
 Benzene – Awareness  
 Bloodborne Pathogens  
 Boom-Supported Elevated Work Platforms  
 Carcinogens Awareness  
 Confined Space Entry – Awareness  
 Confined Space Entry – Competent Person  
 Confined Space Entry – User/Authorized  
 Commercial Driver’s License Medical Fitness Test  
 DOT Hazardous Materials Transportation  
 Drug & Alcohol Signs & Symptoms Training for Supervisors  
 Electrical Administrator Program  
 Electrical Power Generation & Distribution  
 Electrical Safety – Qualified  
 Electrical Safety – Rubber Insulating Gloves  
 Electrical Safety – Switchgear above 480V  
 Electrical Safety – Unqualified  
 Energy Isolation – Awareness  
 Energy Isolation – Isolation Authority  
 Energy Isolation – User/Authorized  
 Fall Protection – Awareness  
 Fall Protection – Competent Person  
 Fall Protection – Equipment Inspector  
 Fall Protection – User/Authorized  
 Fire Extinguisher Training  
 First Aid/CPR  
 Formaldehyde – Awareness  
 Hazard Communication – Global Harmonized System  
 Hazard Communication – employer specific training  
 HAZWOPER Awareness / Level -1 Responder

Hearing Conservation – Awareness  
Helicopter Underwater Egress Training (HUET)  
Hydrogen Sulphide Awareness  
Iron Sulphide Awareness  
Laboratory Safety  
Lead – Awareness  
Manlifts (Elevating Work Platforms)  
Mobile Crane Operator  
National Petroleum Reserve – Alaska (NPRA)  
Naturally Occurring Radioactive Materials (NORM)  
NCCCO/NCCER-Certified Crane Rigger I, II, III  
NCCCO/NCCER-Certified Crane Signalperson  
Nitrogen – Awareness  
NCCCO/NCCER-Certified Overhead Hoist Operator  
Ozone Depleting Substances (Halon)  
Powered Industrial Trucks  
Respirator Medical Fit Test  
Respirator Medical Approval  
Respiratory Protection – Air Purifying Respirators (APR)  
Respiratory Protection – Awareness  
Respiratory Protection – Self-Contained Breathing Apparatus (SCBA)  
Respiratory Protection – Supplied Air Respirator (SAR)  
Scaffolding – Competent/ Inspector  
Scaffolding – Erector  
Scaffolding – User  
Scissor Lifts - Operator  
Static Electricity - Awareness  
Toxic Substance Control Act (TSCA)  
Trenching & Excavation Safety  
Vehicle-mounted Elevating & Rotating Aerial Work Platforms  
Welding Safety – Awareness

End of Section

## Appendix D: BPXA Driver Training Matrix

The Driver training requirements for all **BPXA employees and all contractor employees driving BPXA owned or leased vehicles** are provided in the following table.

Type of Driving	Driving: Alaska Policies CBT(*) HSEDRV001	Driving: Basic Defensive CBT (*) HSEDRV002	Driving: Higher-Mileage Class HSEDRV003	Driving: Professional Class HSEDRV004	On Road Evaluation HSEDRV005	Driving: Fatigue & Tiredness HSEDRV008	Refresher; every 3 years
Low Mileage Drivers (less than 2,000 miles per year on BP business)	X	X					HSEDRV001 HSEDRV002
Higher Mileage Drivers (more than 2,000 miles per year on BP business)	X	X	X		X		HSEDRV001 HSEDRV002 HSEDRV005
Professional Drivers (heavy-vehicle driver, bus driver, chauffeur or anyone who operates mobile equipment and drives more than 15% of their working hours (or pro-rata time for any part of the year).	X	X		X	X	X	HSEDRV001 HSEDRV002 HSEDRV005 HSEDRV008

\* Available as an on-line / computer-based training package from BP and available via: [AccessBPtraining.com](http://AccessBPtraining.com)

+ Professional and Higher Mileage drivers are required to complete a defensive driving training course which includes an on-road assessment.

++ Professional Drivers training must include training about tiredness and fatigue as it relates to driving. All Advanced Driver training must include the BP Tiredness and Fatigue training module.

End of Section

## Appendix E: Additional audience clarification for BPXA course: HSEHAS038 – Oil Spill Prevention Regulations Training

### **Course Audience:**

Contractor personnel who work within BP's Alaska oilfield lease areas whose work includes **operating, maintaining, repairing, testing or inspecting ADEC- and EPA SPCC-regulated oil equipment**; are required by Federal and State laws to be trained on the oil spill prevention regulations applicable to those tasks. The BPXA training course, "Oil Spill Prevention Regulations Training" (HSEENV038) fulfills the requirement.

The primary purpose of these regulations is to prevent spills of oil, which can cause damage to people, property, and the environment. Personnel who perform these types of tasks are commonly referred to as "Oil Handlers."

In general, equipment that holds oil and oil-derivative products is regulated by EPA (40 CFR 112) and/or ADEC (18 AAC 75). 'Oil' includes crude oil, liquid fuels, produced water (from oil production), waste with oil, and oil-based or oil-cut chemicals.

Examples of regulated oil equipment include the following:

- oil well drilling and workover rigs,
- oil piping networks, including produced water pipes,
- oil storage and process tanks, including produced water and drill mud with diesel or crude,
- fuel tanks on trailered equipment (aka "non-mobile" fleet) like light plants, gen sets, heaters, and triplex pumps
- bins and snowmelter tanks used as primary containment for oily waste,
- oil drums and totes 55 gallons and larger,
- electrical transformers with oil,
- oil vessels like slug catchers, separators and treaters.
- lube and seal oil reservoirs,
- trucks-mounted tanks used for mobile refuelling, lubricants and or other oil-derived cargo,
- oil cargo truck transfer equipment (pumps, valves, hoses, etc.)
- spill prevention warning devices (e.g. overfill alarms)
- all secondary containments that serve oil equipment

Activities excluded from this regulatory training requirement are design, construction, demolition, fuelling your own vehicle, electrical work not involved with oil equipment, safety work and administration **not** directly involved with or engaged in working on regulated equipment.

Additional information, including a detailed list of oil and non-oil products, is provided in BPXA's Compliance with Oil Spill Prevention Regulations policy document.

Questions may be directed to the BP Alaska Spill Prevention Compliance Advisor, at (907) 564-5296.

End of Section





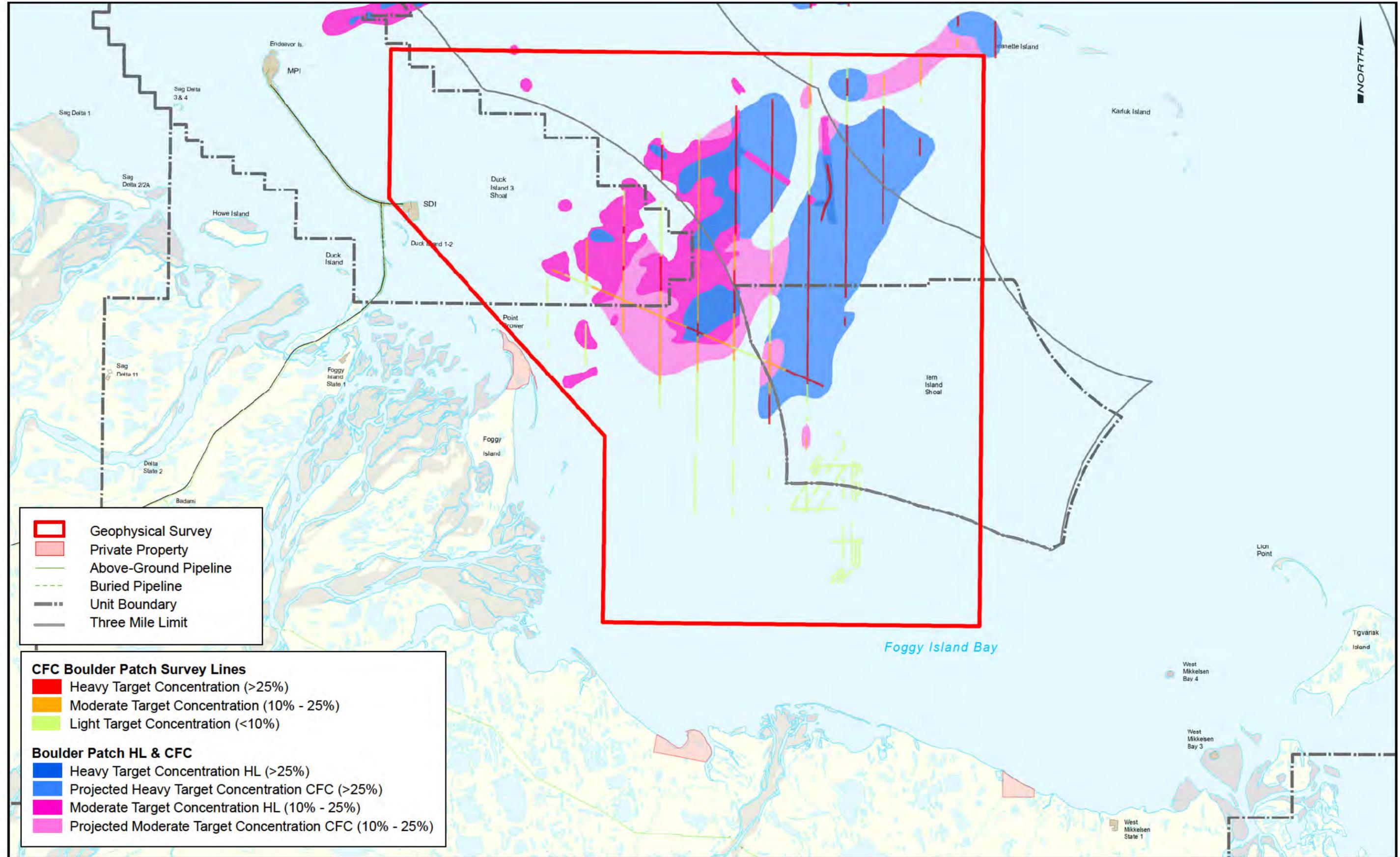
## **ATTACHMENT 8**





# 2013 LIBERTY GEOPHYSICAL SURVEY

0 1 2 3 Miles





## **ATTACHMENT 9**



**Waste Management Plan:**

Waste Stream	Source	Estimated Volume	Waste Management Options (include characterization if known)
Solid oily waste	Sorbents used to wipe down equipment	1 Bags / project	Non-Hazardous - Double bagged in oily waste bags Bagged separately from those containing drips and drops on snow and ice – no free liquids, place in oily waste dumpster
Human Waste		<5 gallons / day	Non-bio (no blood, needles, etc.). Vessel toilet. Waste discharged per USCG requirements.
Food Waste	Lunches	<2 gallons / day	Bagged and placed in food waste dumpster at Camp with bear-proof lid

*The Alaska Waste Disposal and Reuse Guide (Redbook) will be used in addition to this waste management plan. BP Environmental will be contacted prior to disposal or mixing of waste streams that are not addressed above or in the Redbook.*



**ATTACHMENT 10**



**2013 OPEN WATER SEASON  
PROGRAMMATIC CONFLICT AVOIDANCE  
AGREEMENT**

**BETWEEN**

**BP EXPLORATION (ALASKA), INC.  
ENI US OPERATING COMPANY, INC.  
EXXON MOBIL CORPORATION  
GX TECHNOLOGY CORP.  
PIONEER NATURAL RESOURCES ALASKA, INC.  
SAExploration  
SHELL OFFSHORE, INC  
TGS**

**AND**

**THE ALASKA ESKIMO WHALING COMMISSION  
THE BARROW WHALING CAPTAINS' ASSOCIATION  
THE GAMBELL WHALING CAPTAINS' ASSOCIATION  
THE KAKTOVIK WHALING CAPTAINS' ASSOCIATION  
THE KIVALINA WHALING CAPTAINS' ASSOCIATION  
THE LITTLE DIOMEDE WHALING CAPTAINS'  
ASSOCIATION  
THE NUIQSUT WHALING CAPTAINS' ASSOCIATION  
THE PT. HOPE WHALING CAPTAINS' ASSOCIATION  
THE PT. LAY WHALING CAPTAINS' ASSOCIATION  
THE SAVOONGA WHALING CAPTAINS'  
ASSOCIATION  
THE WAINWRIGHT WHALING CAPTAINS'  
ASSOCIATION  
THE WALES WHALING CAPTAINS' ASSOCIATION**



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## **TITLE I – GENERAL PROVISIONS**

### **SECTION 101. APPLICATION.**

Title I applies to all Participants, except as provided in Title VI.

Title II applies to all Participants, except as provided in Titles III or VI.

Title III applies to those Participants who operate barge or transit vessels in the Beaufort Sea or Chukchi Sea.

Titles IV and V apply only to those Participants who engage in oil and gas operations, except as provided in Title VI.

Title VI applies to those Participants who engage exclusively in geophysical activities that are conducted at least 5 miles or more from the Alaska coast in the Beaufort Sea or Chukchi Sea and begin on or after October 1, 2013.

Provisions that apply to a specific activity or are designated as specific to either the Beaufort Sea or Chukchi Sea apply only to Participants that engage in that activity or operate in that area, and provisions applicable to activities a Participant does not engage in or areas in which a Participant does not operate do not apply to that Participant.

### **SECTION 102. PURPOSE.**

The purpose of this Agreement is to provide:

- (1) Equipment and procedures for communications between Subsistence Participants and Industry Participants;
- (2) Avoidance guidelines and other mitigation measures to be followed by the Industry Participants working in or transiting the vicinity of active subsistence hunters, in areas where subsistence hunters anticipate hunting, or in areas that are in sufficient proximity to areas expected to be used for subsistence hunting that the planned activities could potentially adversely affect the subsistence bowhead whale hunt through effects on bowhead whales;
- (3) Measures to be taken in the event of an emergency occurring during the term of this Agreement; and

- (4) Dispute resolution procedures.

## **SECTION 103. DEFINITIONS.**

### **(a) Defined Terms.**

For the purposes of this Agreement:

- (1) The term “Agreement” means this 2013 Open Water Season Programmatic Conflict Avoidance Agreement and any attachments to such agreement.
- (2) The term “at-sea oil and gas operations” does not include gravel islands or fixed platform developments located near shore (for example Northstar or Oooguruk) or Near Shore Operations Support Vessels.
- (3) The term “barge” means a non-powered vessel that is pushed or towed, and the accompanying pushing or towing vessel, which is used solely to transport materials through the Beaufort Sea or Chukchi Sea. Such term does not include any vessel used to provide supplies or support to at-sea oil and gas operations or Near Shore Operations Support Vessels.
- (4) The term “Com-Center” means a communications systems coordination center established under Section 203.
- (5) The term “geophysical activity” means any activity the purpose of which is to gather data for imaging the marine subsurface environment, including but not limited to use of air guns, sonar, and other geophysical equipment used for seismic exploration or shallow hazard identification. “Geophysical activity” does not include support vessels that are not actively employing geophysical equipment, or other supporting activities that do not generate sound waves for the purposes of imaging the subsurface marine environment.
- (6) The term “geophysical equipment” means equipment, such as air gun arrays over 300 cubic inches or sparker arrays over 20,000 kJ, employed on a vessel or a towed array, that generates sound waves for the purpose of imaging the subsurface marine environment for exploration and development purposes. The term does not include vessel engines, generators, or sources such as fathometers, fish finders, side-scan sonar, or other sources intended for engineering and /or transportation purposes.
- (7) The term “Industry Participants” means all parties to this Agreement who are not Subsistence Participants.

(8) The term “Marine Mammal Observer / Inupiat Communicator” or “MMO/IC” means an observer hired by an Industry Participant for the purpose of spotting and identifying marine mammals in the area of that Industry Participant’s operations during the Open Water Season. The MMO/IC also serves as the on-board Inupiat communicator who can communicate directly with whaling crews.<sup>1</sup>

(9) The term “Near Shore Operations Support Vessels” means vessels (including aircraft) used to support related activities (such as supply, re-supply, crew movement, and facility maintenance) for near shore oil and gas operations by an Industry Participant.

(10) The terms “NSB” and “NSB DWM” mean the North Slope Borough and the North Slope Borough Department of Wildlife Management, respectively.

(11) The term “oil and gas operations” means all oil and gas exploration, development, or production activities (including, but not limited to, geophysical activity, exploratory drilling, development activities (such as dredging or construction), production drilling, or production, and related activities (such as supply, re-supply, crew movements, and facility maintenance) by or for any Industry Participant, including aircraft and vessels of whatever kind used in support of such activities, occurring in the Beaufort Sea or Chukchi Sea, whether occurring near shore or offshore, but does not include barge traffic, transit vessel traffic, cable laying vessel traffic, or research vessel traffic (i.e. traffic by a vessel which is only conducting research and is not conducting any geophysical activities) by or for any Participant.

(12) The term “Open Water Season” means the period of the year when ice conditions permit navigation or oil and gas operations to occur in the Beaufort Sea or Chukchi Sea, as appropriate.

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<sup>1</sup> Following the 2013 CAA meeting, a request was put in to change the title of MMO/IC to “Protected Species Observer,” to make the term consistent with the terminology used by the National Science Foundation. The AEWC will raise this suggestion during the 2014 CAA meeting.

(13) The term “Participants” means all parties identified in this Agreement by name and whose representative(s) has signed the Agreement, and all contractors of such parties. When used alone the term includes both Industry Participants and Subsistence Participants.

(14) The term “Primary Sound Source Vessel” means a vessel owned or operated by or for an Industry Participant that (A) employs air gun arrays greater than 300 cubic inches or sparkers greater than 20,000 kJ, for imaging the subsurface environment, (B) is used to monitor any safety zone around a vessel described in subsection (A), (C) is engaged in ice-breaking, or (D) is the lead vessel in a group of barge or transit vessels.

(15) The term “sonar” means equipment, employed as hull mounted or towed array, intended for the active location of surface or underwater vessels. The term does not include vessel engines, generators, or sources such as fathometers, fish finders, side-scan sonar, or other sources intended for engineering, cable laying or routing, and/or transportation purposes.

(16) The term “Subsistence Participants” means the Alaska Eskimo Whaling Commission (AEWC) and its members, including the whaling captains’ associations identified on the cover of this Agreement, as well as any individual members of those associations.

(17) The term “transit vessel” means a powered vessel that is used solely to transport materials through the Beaufort Sea or Chukchi Sea. Such term does not include a vessel used to provide supplies or other support to at-sea oil and gas operations or Near Shore Operations Support Vessels.

**(b) Geographically Limited Terms.**

For the purposes of this Agreement:

(1) The term “Beaufort Sea” means all waters off the northern coast of Alaska from Point Barrow to the Canadian border.

(2) The term “Chukchi Sea” means all waters off the western and northern coasts of Alaska from Cape Prince of Wales to Point Barrow.

## **SECTION 104. TERM, SCOPE, AND LIMITATIONS.**

### **(a) Term.**

The term of this Agreement shall commence with the signing of this document by the Participants and shall terminate upon completion of the Nuiqsut, Kaktovik, Barrow, Wainwright, Pt Lay, and Pt. Hope Fall Bowhead Hunts or the Beaufort Sea Post Season Meeting required under Section 108(a) and Chukchi Sea Post-Season Meetings in Barrow, Wainwright, Pt. Lay, and Pt. Hope required under Section 108(b), whichever is later.

### **(b) Scope.**

The Participants agree that, unless otherwise specified:

- (1) The mitigation measures identified in this Agreement, which are intended to mitigate interference by oil and gas operations and barge and transit vessel traffic with the Alaskan Eskimo subsistence bowhead whale hunt, are designed to apply to all activities of each Participant during the 2013 Open Water Season, whether referenced specifically or by category, and to all vessels and locations covered by this Agreement, whether referenced specifically or by category.
- (2) This Agreement is intended to apply to all oil and gas operations and barge and transit vessel traffic during the 2013 Open Water Season in the Beaufort Sea or Chukchi Sea.
- (3) Vessels and locations covered by this Agreement include those identified in the Agreement, as well as any other vessels or locations that are employed by or for the Industry Participants in the Beaufort Sea or Chukchi Sea during the 2013 Open Water Season.

### **(c) Limitations of Obligations.**

The following limitations apply to this Agreement.

- (1) No cooperation among the Participants, other than that required by this Agreement, is intended or otherwise implied by their adherence to this Agreement. In no event shall the signatures of any representative of the Alaska Eskimo Whaling Commission (AEWC), or of the Barrow, Nuiqsut, Kaktovik, Wainwright, Pt. Hope, or Pt. Lay Whaling Captains' Associations, or of any other Whaling Captains' Association be taken as an endorsement of any Arctic operations or Beaufort Sea or Chukchi Sea OCS operations by any oil and/or gas operator or contractor.

(2) Adherence to the procedures and guidelines set forth in this Agreement does not in any way indicate that any Inupiat or Siberian Yupik whalers or the AEWI agree that industrial activities are not interfering with the bowhead whale migration or the bowhead whale subsistence hunt. Such adherence does not represent an admission on the part of the Industry Participants or their contractors that the activities covered by this Agreement will interfere with the bowhead whale migration or the bowhead whale subsistence hunt.

(3) No member of the oil and gas industry or any contractor has the authority to impose restrictions on the subsistence hunting of bowhead whales or associated activities of the AEWI, residents of the Villages of Nuiqsut, Kaktovik, Barrow, Wainwright, Pt. Lay, or Pt. Hope, or residents of any other village represented by the AEWI.

(4) In the event additional parties engage in oil and gas operations in the Beaufort Sea or Chukchi Sea during the summer or fall of 2013 the Participants shall exercise their good-faith efforts to encourage those parties to enter into this Agreement. Should additional parties enter into this Agreement at a date subsequent to the date of the signing of this document and before the termination of the 2013 bowhead whale subsistence hunting season, the AEWI will provide to all Participants a supplement to this document with the added signatures.

(5) No Participant is responsible for enlisting additional parties to adhere to the terms and conditions of the Agreement. Similarly, **THE AEWI IS NOT RESPONSIBLE FOR, OR A PARTY TO, ANY AGREEMENT AMONG THE INDUSTRY PARTICIPANTS** concerning the apportionment of expenses necessary for the implementation of this Agreement.

(6) In adhering to this Agreement, none of the Participants waives any rights existing at law. All Participants agree that the provisions of this document do not establish any precedent as between them or with any regulatory or permitting authority.

(7) **PARTICIPANTS' OBLIGATIONS SHALL BE SEPARABLE:** All Participants to this Agreement understand that each Participant represents a separate entity. The failure of any Participant to adhere to this Agreement or to abide by the terms and conditions of this Agreement shall not affect the obligation of other Participants to adhere to this Agreement and to proceed accordingly with all activities covered by this Agreement. Nor shall any Participant's adherence to this Agreement affect that Participant's duties, liabilities, or other obligations with respect to any other Participant beyond those stated in this Agreement. If an Industry Participant does not receive permit approvals from regulatory agencies to conduct its proposed activities, then that company may withdraw from this Agreement.

## **SECTION 105. REGULATORY COMPLIANCE.**

### **(a) United States Coast Guard Requirements.**

The Participants shall comply with all applicable United States Coast Guard requirements for safety, navigation, and notice.

### **(b) Environmental Regulations and Statutes.**

The Participants shall comply with all applicable environmental regulations and statutes.

### **(c) Other Regulatory Requirements.**

The Participants shall comply with all applicable federal, state, and local government requirements.

## **SECTION 106. DISPUTE RESOLUTION.**

Subject to the terms of Section 104(c)(7) of this Agreement, all disputes arising between any Industry Participants and any Subsistence Participants shall be addressed as follows:

- (1) The dispute shall first be addressed between the affected Participant(s) in consultation with the affected village Whaling Captains' Association and the Industry Participant(s)' Local Representative.
- (2) If the dispute cannot be resolved to the satisfaction of all affected Participants, then the dispute shall be addressed with the affected Participants in consultation with the AEWC.
- (3) If the dispute cannot be satisfactorily resolved in accordance with paragraphs (1) and (2) above, then the dispute shall be addressed with the AEWC and the affected Participants in consultation with representatives of NOAA Fisheries.
- (4) All Participants shall seek to resolve any disputes in a timely manner, and shall work to ensure that requests for information or decisions are responded to promptly.

## **SECTION 107. EMERGENCY AND OTHER NECESSARY ASSISTANCE.**

### **(a) Emergency Communications.**

**ALL VESSELS SHOULD NOTIFY THE APPROPRIATE COM-CENTER IMMEDIATELY IN THE EVENT OF AN EMERGENCY.** The appropriate Com-Center operator will notify the nearest vessels and appropriate search and rescue authorities of the problem and advise them regarding necessary assistance. (See attached listing of local search and rescue organizations in Attachment I.)

### **(b) Emergency Assistance for Subsistence Whale Hunters.**

Section 403 of Public Law 107-372 (16 U.S.C. 916c note) provides that “Notwithstanding any provision of law, the use of a vessel to tow a whale, taken in a traditional subsistence whale hunt permitted by Federal law and conducted in waters off the coast of Alaska is authorized, if such towing is performed upon a request for emergency assistance made by a subsistence whale hunting organization formally recognized by an agency of the United States government, or made by a member of such an organization, to prevent the loss of a whale.” Industry Participants will advise their vessel captains that, under the circumstances described above, assistance to tow a whale is permitted under law when requested by a Subsistence Participant. Under the circumstances described above, Industry Participants will provide such assistance upon a request for emergency assistance from a Subsistence Participant, if conditions permit the Industry Participant’s vessel to safely do so.

## **SECTION 108. POST-SEASON REVIEW / PRESEASON INTRODUCTION.**

### **(a) Beaufort Sea Post-Season Joint Meeting.**

Following the end of the fall 2013 bowhead whale subsistence hunt and prior to the 2013 Pre-Season Introduction Meetings, the Industry Participant that establishes the Deadhorse and Kaktovik Com Centers will offer to the AEWC Chairman to host a joint meeting with all whaling captains of the Villages of Nuiqsut, Kaktovik and Barrow, the Marine Mammal Observer / Inupiat Communicators stationed on the Industry Participants’ vessels in the Beaufort Sea, and with the Chairman and Executive Director of the AEWC, at a mutually agreed upon time and place on the North Slope of Alaska, to review the results of the 2013 Beaufort Sea Open Water Season, unless it is agreed by all designated individuals or their representatives that such a meeting is not necessary.

**(b) Chukchi Sea Post-Season Village Meetings.**

Following the completion of the 2013 Chukchi Sea Open Water Season and prior to the 2014 Pre-Season Introduction Meetings, the Industry Participants involved, if requested by the AEWG or the Whaling Captain's Association of each village, will host a meeting in each of the following villages: Wainwright, Pt. Lay, Pt. Hope, Kivalina, Little Diomede, Wales, Savoonga, and Barrow (or a joint meeting of the whaling captains from all of these villages if the whaling captains agree to a joint meeting) to review the results of the 2013 operations and to discuss any concerns residents of those villages might have regarding the operations. The meetings will include the Marine Mammal Observer / Inupiat Communicators stationed on the Industry Participants' vessels in the Chukchi Sea. The Chairman and Executive Director of the AEWG will be invited to attend the meeting(s).

**(c) Pre-season Introduction Meetings.**

(1) Immediately following each of the above meetings, and at the same location, the Industry Participants will provide a brief introduction to their planned operations for the 2014 Open Water Season. Each Industry Participant should provide hand-outs explaining their planned activities that the whaling captains can review.

(2) Subsistence Participants understand that any planned operations discussed at these Pre-Season Introduction Meetings, and the corresponding maps, will represent the Industry Participant's best estimate at that time of its planned operations for the coming year, but that these planned operations are preliminary, and are subject to change prior to the 2014 Open Water Season Meeting.

**(d) Map of Planned Industry Participant Activities.**

As practicable, Industry Participants shall jointly prepare and provide the AEWG with a large-scale map of the Beaufort and Chukchi Seas showing the locations and types of oil and gas and barge and transit activities planned by each Industry Participant. This map will be for use by the AEWG and Industry Participants during the 2014 CAA Meeting.

## **SECTION 109. INDIVIDUAL NOTIFICATION.**

In the event that any Industry Participant does not become a signatory to this Agreement, the local Whaling Captains' Associations shall be notified by the AEWG, no later than March 31, 2013, so that the local Whaling Captains' Associations can prepare to talk with the non-signatories to avoid conflict during that association's fall subsistence bowhead whaling season.

## **TITLE II -- OPEN WATER SEASON COMMUNICATIONS**

### **SECTION 201. MARINE MAMMAL OBSERVERS / INUPIAT COMMUNICATORS.**

#### **(a) Marine Mammal Observer / Inupiat Communicator Required.**

(1) In General. Each Industry Participant agrees to employ a Marine Mammal Observer / Inupiat Communicator (MMO/IC) on board each Primary Sound Source Vessel owned or operated by such Industry Participant in the Beaufort Sea or Chukchi Sea. Native residents of the eleven villages represented by the Alaska Eskimo Whaling Commission shall be given preference in hiring for MMO/IC positions.

(2) Special Rule for Inside Beaufort Sea Barrier Islands. Industry Participants whose seismic acquisition operations are limited to an area exclusively within the barrier islands need employ an MMO/IC on one Primary Sound Source Vessel only.

(3) Near Shore Operations Support Vessels. Industry Participants are not required to employ an MMO/IC on Near Shore Operations Support Vessels.

(4) Sealift Operations. For Industry Participants conducting sealift operations in which two tugs towing barges are accompanied within ½ mile by a third light tug at all times, a MMO/IC is required to be employed on the light tug only.

#### **(b) Duties of Marine Mammal Observer / Inupiat Communicator.**

(1) Each MMO/IC is to be employed as an observer and Inupiat communicator for the duration of the 2013 Open Water Season on the vessel on which he or she is stationed.

(2) As a member of the crew, the MMO/IC will be subject to the regular code of employee conduct on board the vessel and will be subject to discipline, termination, suspension, layoff, or firing under the same conditions as other employees of the vessel operator or appropriate contractor.

(3) Once the source vessel on which the MMO/IC is employed is in the vicinity of a whaling area and the whalers have launched their boats, the MMO/IC's primary duty will be to carry out the communications responsibilities set out in this Title.

(4) At all other times, the MMO/IC will be responsible for keeping a lookout for bowhead whales and/or other marine mammals in the vicinity of the vessel to assist the vessel captain in avoiding harm to the whales and other marine mammals.

(5) It is the MMO/IC's responsibility to call the appropriate Com-Center as set out in Sections 202 and 203.

(6) The MMO/IC will be responsible for all radio contacts between vessels owned or operated by each of the Industry Participants and whaling boats covered under Section 207 of this Agreement and shall interpret communications as needed to allow the vessel operator to take such action as may be necessary pursuant to this Agreement.

(7) The MMO/IC shall contact directly subsistence whaling boats that may be in the vicinity to ensure that conflicts are avoided to the greatest possible extent.

(8) The MMO/IC will maintain a record of his or her communications with each Com-Center and the subsistence whaling boats, as well as any marine mammal sightings by the MMO/IC.

## **SECTION 202. COM-CENTER GENERAL COMMUNICATIONS SCHEME.**

### **(a) Reporting Positions for Vessels Owned or Operated by the Industry Participants.**

(1) All vessels (other than vessels covered under sections 302 and 602) shall report to the appropriate Com-Center at least once every six hours commencing with a call at approximately 06:00 hours. Each call shall report the following information:

(A) Vessel name, operator of vessel, charter or owner of vessel, and the project the vessel is working on.

(B) Vessel location, speed, and direction.

C) Plans for vessel movement between the time of the call and the time of the next call. The final call of the day shall include a statement of the vessel's general area of expected operations for the following day, if known at that time.

EXAMPLE: This is the Arctic Endeavor, operated by \_\_\_\_\_ for \_\_\_\_\_ at Chukchi Sea prospect. We are currently at \_\_\_' \_\_\_ north \_\_\_' \_\_\_ west, proceeding SE at \_\_\_ knots. We will proceed on this course for \_\_\_ hours and will report location and direction at that time.

(2) The appropriate Com-Center shall be notified if there is any significant change in plans, such as an unannounced start-up of operations or significant deviations from announced course, and such Com-Center shall notify all whalers of such changes. A call to the appropriate Com-Center shall be made regarding any unsafe or unanticipated ice conditions.

(3) In the event that the Industry Participant's operation includes seismic data acquisition, the operator reserves the right to restrict exact vessel location information and provide more general location information.

**(b) Reporting Positions for Subsistence Whale Hunting Crews.**

(1) All subsistence whaling captains shall report to the appropriate Com-Center at the time they launch their boats from shore and again when they return to shore.

(2) All subsistence whaling captains shall report to such Com-Center the initial GPS coordinates of their whaling camps.

(3) Additional communications shall be made on an as needed basis.

(4) Each call shall report the following information:

(A) The crew's location and general direction of travel.

EXAMPLE: This is \_\_\_\_\_. We are just starting out. We will be traveling north-east from \_\_\_\_\_ to scout for whales. I will call if our plans change.

(B) The presence of any vessels or aircraft owned or operated by any of the Industry Participants, or their contractors, that are not observing the specified guidelines set forth in Title V on Avoiding Conflicts.

(C) The final call of the day shall include a statement of the whaling captain's general area of expected operations for the following day, if known at the time.

(5) Any subsistence whale hunter preparing to tow a caught whale shall report to the appropriate Com-Center before starting to tow.

EXAMPLE: This is Archie Ahkiviana. I am \_\_\_'\_\_\_ north, \_\_\_'\_\_\_ west. I have a whale and am towing it into \_\_\_\_\_.

(6) Each time a subsistence whaling camp is moved, it shall be reported promptly to the appropriate Com-Center, including the new GPS coordinates.

(7) Subsistence whale hunters shall notify the appropriate Com-Center promptly if, due to weather or any other unforeseen event, whaling is not going to take place that day.

(8) Subsistence whaling captains shall contact the appropriate Com-Center promptly and report any unexpected movements of their vessel.

**(c) Responsibilities of Participants.**

(1) Monitoring VHF Channel 16.

All vessels covered by Sections 207, 301, and 401 of this Agreement shall monitor marine VHF Channel 16 at all times.

(2) Avoidance of Whale Hunting Crews and Areas

It is the responsibility of each vessel owned or operated by any of the Industry Participants and covered by Sections 301 or 401 of this Agreement to determine the positions of all of their vessels and to exercise due care in avoiding any areas where subsistence whale hunting is active.

(3) Vessel-to-Vessel Communication

After any vessel owned or operated by any of the Industry Participants and covered by Sections 301 or 401 of this Agreement has been informed of or has determined the location of subsistence whale hunting boats in its vicinity, the MMO/IC shall contact those boats in order to coordinate movement and take necessary avoidance precautions.

**SECTION 203. THE COMMUNICATIONS SYSTEM COORDINATION CENTERS (COM-CENTERS).**

**(a) Chukchi Lead System Included in Com-Center Coverage.**

In addition to the Beaufort Sea and Chukchi Sea, the communications scheme shall apply in the Chukchi Sea lead system, as identified and excluded from leasing in the current MMS Five-Year Leasing Program, 2007-2012.

**(b) Set Up and Operation.**

(1) Subject to the terms of Section 104(c) and Section 601 of this Agreement, the Industry Participants conducting operations during the Com-Center operational window specified in Section 203(c) in:

(A) the Beaufort Sea jointly will arrange for the funding of Com-Centers in Deadhorse and Kaktovik; and

(B) the Chukchi Sea jointly will arrange for the funding of Com-Centers in Barrow, Wainwright, Pt. Lay, Pt. Hope, Kivalina, Wales, and St. Lawrence Island.

(2) All nine Com-Centers will be staffed by Inupiat operators. **GROUND TRANSPORTATION MUST BE PROVIDED FOR COM-CENTER OPERATIONS IN KAKTOVIK FOR POLAR BEAR AND BROWN BEAR SAFETY.** The Com-Centers will be operated 24 hours per day during the 2013 subsistence bowhead whale hunt. One Industry Participant in the Beaufort Sea and one Industry Participant in the Chukchi Sea, or their respective contractor, will be designated as the operator of the Com-Centers for that Sea, in consultation with the AEWC.

(3) Each Industry Participant shall contribute to the funding of the Com-Centers covering the areas in which it conducts oil and gas operations. The level of funding for the Com-Centers provided by each of the Industry Participants is intended to be in proportion to the scale of their respective activities, and shall be mutually agreed by the Industry Participants.

(4) The procedures to be followed by the Com-Center operators are set forth in subsection (d) below.

**(c) Staffing.**

(1) Each Com-Center shall have an Inupiat operator (“Com-Center operator”) on duty 24 hours per day from August 15, or one week before the start of the fall bowhead whale hunt in each respective village, until the end of the bowhead whale subsistence hunt in villages listed in subparagraphs (A) through (G) and until the completion of all Industry Participant vessel transits (other than a vessel covered under Title V) in villages listed in subparagraphs (G) through (I):

- (A) Kaktovik for the Kaktovik Com-Center;
- (B) Nuiqsut for the Deadhorse Com-Center;
- (C) Barrow for the Barrow Com-Center;
- (D) Wainwright for the Wainwright Com-Center.
- (E) Pt. Lay for the Pt. Lay Com-Center, which will be located in the Pt. Lay Whaling Captains’ Association building; and
- (F) Pt. Hope for the Pt. Hope Com-Center, which will be located in the Pt. Hope Whaling Captains’ Association building.
- (G) Kivalina for the Kivalina Com-Center.
- (H) Wales for the Wales Com-Center.
- (I) Gambell or Savoonga for the St. Lawrence Island Com-Center.

(2) All Com-Center staff shall be local hire.

**(d) Duties of the Com-Center Operators.**

(1) The Com-Center operators shall be available to receive radio and telephone calls and to call vessels as described below. A record shall be made of all calls from every vessel covered by Sections 207, 301, and 401 of this Agreement. Information reported regarding whales struck, lost, landed, or the location of whales struck, lost, or landed, or the number of strikes remaining, shall be confidential and shall not be disclosed to anyone other than the AEWC or the local Whaling Captains' Association. The record of all reporting calls should contain the following information:

(A) Industry Participant Vessel:

- (i) Name of caller and vessel.
- (ii) Vessel location, speed, and direction.
- (iii) Time of call.
- (iv) Anticipated movements between this call and the next report.
- (v) Reports of any industry or subsistence activities.

(B) Subsistence Whale Hunting Boat:

- (i) Name of caller.
- (ii) Location of boat or camp.
- (iii) Time of call.
- (iv) Plans for travel.
- (v) Any special information such as caught whale, whale to be towed, or industry vessel conflicts with whale or whaler. Any report of the number of whales struck, lost, or landed, or of the number of strikes remaining, shall be kept confidential and shall not be disclosed by the Com-Center or any Com-Center operator to anyone other than the AEWC or the local Whaling Captains' Association. The location of whales struck, lost, or landed shall be kept confidential and shall not be disclosed except to the extent needed to avoid an Industry/Subsistence Whale Hunter conflict.

(2) Report of Industry/Subsistence Whale Hunter Conflict. In the event an industry/subsistence whale hunter conflict is reported, the appropriate Com-Center operator shall record:

- (A) Name of industry vessel.
- (B) Name of subsistence whaling captain.
- (C) Location of vessels.
- (D) Nature of conflict, data, and time.

(3) If all vessels and boats covered by Sections 207, 301, and 401 of this Agreement have not reported to the appropriate Com-Center within one hour of the recommended time, that Com-Center operator shall attempt to call all non-reporting vessels to determine the information set out above under the Duties of the Com-Center operator.

(4) As soon as location information is provided by a vessel covered by Sections 207, 301, or 401 of this Agreement, the appropriate Com-Center operator shall plot the location and area of probable operations on the large map provided at the Com-Center.

(5) If, in receiving information or plotting it, a Com-Center operator observes that operations by Industry Participants might conflict with subsistence whaling activities, such Com-Center operator shall contact the industry vessel involved and advise the Industry Participant's Local Representative(s) and the vessel operators of the potential conflict.

#### **SECTION 204. STANDARDIZED LOG BOOKS.**

The Industry Participants will provide the Com-Centers and Marine Mammal Observer / Inupiat Communicators with identical log books to assist in the standardization of record keeping associated with communications procedures required pursuant to this Agreement.

## **SECTION 205. COMMUNICATIONS EQUIPMENT.**

### **(a) Communications Equipment to be Provided to Subsistence Whale Hunting Crews.**

- (1) In General. The Industry Participants will provide (or participate in the provision of) the communications equipment described in paragraphs (4) and (6) of this subsection and subsection (b) of this section.
- (2) Beaufort Sea. The Industry Participants funding Com-Centers in Deadhorse and Kaktovik will fund the provision of communications equipment for the whaling captains of Kaktovik and Nuiqsut in the same proportion as they fund those Com-Centers.
- (3) Chukchi Sea. The Industry participants conducting operations in the Chukchi Sea will coordinate with each other to participate in funding the provision of communications equipment for the whaling captains of Barrow, Wainwright, Pt. Hope, and Pt. Lay.
- (4) All-Channel, Water-Resistant VHF Radios.

These VHF radios are specifically designed for marine use and allow monitoring of Channel 16 while using or listening to another channel.

- (A) Kaktovik Subsistence Whaling Boats: 8
- (B) Kaktovik Base and Search and Rescue: 2
- (C) Nuiqsut Subsistence Whaling Boats: 12
- (D) Nuiqsut Base and Search and Rescue: 3
- (E) Barrow Base and Search and Rescue: 2
- (F) Wainwright Base and Search and Rescue: 2
- (G) Wainwright Subsistence Whaling Boats: 4
- (H) Pt. Hope Base and Search and Rescue: 2
- (I) Pt. Hope Subsistence Whaling Boats: 10

- (J) Pt. Lay Base and Search and Rescue: 2
- (K) Pt. Lay Subsistence Whaling Boats: 4

(5) Specific VHF Channels For Each Village.

The whaling boats from each of the villages have been assigned individual VHF channels for vessel-to-vessel and vessel-to-Com-Center communications as follows:

- (A) Nuiqsut whaling crews will use Channel 68.
- (B) Kaktovik whaling crews will use Channel 69.
- (C) Barrow whaling crews will use Channel 72.
- (D) Wainwright Whaling Crews will use Channel 12.
- (E) Pt. Lay Whaling Crews will use Channel 72.
- (F) Pt. Hope Whaling Crews will use Channel 68.

(6) Satellite Telephones.

The satellite telephones are to be used as backup for the VHF radios. The satellite telephones for use on subsistence whaling boats are for emergency use only and should be programmed for direct dial to the nearest Com-Center.

- A. Kaktovik Base Phones: 2
- B. Kaktovik Subsistence Whaling Boats: 8
- C. Nuiqsut Base Phones: 2
- D. Nuiqsut Subsistence Whaling Boats: 12
- E. Barrow Subsistence Whaling Boats: 2
- F. Wainwright Subsistence Whaling Boats: 4
- G. Pt. Lay Subsistence Whaling Boats: 2

(7) Distribution and Return of Equipment.

The distribution of the VHF radios and satellite telephone equipment to whaling captains for use during the 2013 fall bowhead subsistence whale hunting season shall be completed no later than August 15, 2013. All such units and telephone equipment provided under this Agreement, whether in this section or otherwise, will be returned promptly by the Subsistence Participants to the Industry Participant or the person providing such units and equipment at the end of each Village's 2013 fall bowhead whale subsistence hunt.

**(b) Communications Equipment on Vessels Owned or Operated by the Industry Participants and/or their Contractors.**

The Marine Mammal Observer / Inupiat Communicators onboard source vessels owned or operated by the Industry Participants and/or their contractors will also be supplied with all-channel VHF radios. The MMO/ICs have been assigned Channel 7 for their exclusive use in communicating with the Com-Center. Such radios shall be returned upon the completion or termination of the MMO/IC's assignment.

**(c) Radio Installation and User Training.**

The Whaling Captains of Nuiqsut, Kaktovik, Wainwright, Pt. Lay, and Pt. Hope, with assistance from the Industry Participants, will be responsible for the installation of the VHF radio equipment. The Industry participants will provide (or participate in the provision of) on-site user training for the VHF and satellite telephone equipment on or before August 15, 2013, if requested and as scheduled by the Whaling Captains' Associations of Nuiqsut, Kaktovik, Barrow, Wainwright, Pt. Lay, and Pt. Hope, and the Industry Participant operating the Beaufort Sea Com-Centers or Chukchi Sea Com-Centers, as appropriate.

## SECTION 206. INDIVIDUALS TO CONTACT.

Listed below are the primary contact names and phone numbers for each of the Participants.

(1) BP Exploration (Alaska), Inc.'s (BP) Local Representative

LOWRY BROTT will be BP's local representative on the North Slope during the Term of this Agreement and will be stationed at Northstar Island and will be available by telephone at (907) 670-3520 and when Mr. Brott is not available, his alternate, Jeff Carter, will be stationed at Northstar Island and will be available by telephone at the above number.

(2) ENI's Local Representative

Robert Province: [Robert.Province@enipetroleum.com](mailto:Robert.Province@enipetroleum.com) 907-865-3350

(3) Exxon Mobil's Local Representative

Anthony Pennino: [Anthony.pennino@exxonmobile.com](mailto:Anthony.pennino@exxonmobile.com) (907) 334-2929

Brien Reep: [Brien.e.reep@exxonmobil.com](mailto:Brien.e.reep@exxonmobil.com) (907) 564-3617

(4) GX Technology's Local Representative

Ed Nelson (832) 344-6852

(5) Pioneer Natural Resources' (Pioneer) Local Representative

PAT FOLEY will be Pioneer's local representative during the Term of this Agreement and will be stationed in Anchorage and will be available by telephone at (907) 343-2110.

(6) Shell Offshore Inc.'s (Shell) Local Representatives

CRAIG BLANCHARD and HOWARD HILL will be Shell's local representatives on the North Slope during the Term of this Agreement and will be stationed at Barrow during Chukchi Sea operations and at Deadhorse during Beaufort Sea operations and will be available by telephone at (907) 770-3700.

(7) STATOIL's Local Representative

Ella Ede: [eede@statoil.com](mailto:eede@statoil.com) (907) 444-3473

(8) SAExploration

TBD

(9) TGS

TBD

(10) The Village of Kaktovik

For purposes of this Agreement, the individuals to contact for the Village of Kaktovik will be: JOSEPH KALEAK at (907) 640-6213 or 640-6515, and CHARLIE M. BROWER at (907) 640-4163 (home), (907) 640-2092 (work), or (907) 640-0052 (cell).

(11) The Village of Nuiqsut

For purposes of this Agreement, the individuals to contact for the Village of Nuiqsut will be: ISAAC NUKAPIGAK at (907) 480-6220 (Work); (907) 480-2400 (Home).

(12) The Village of Barrow

For purposes of this Agreement, the individuals to contact for the Village of Barrow will be: HARRY BROWER, JR. at (907) 852-0350 (Work), and EUGENE BROWER at (907) 852-3601.

(13) The Village of Wainwright

For purposes of this Agreement, the individuals to contact for the Village of Wainwright will be: ROSSMAN PEETOOK at (907) 763-4774, and WALTER NAYAKIK at (907)763-2915 (Work).

(14) The Village of Pt. Hope

For purposes of this Agreement, the individuals to contact for the Village of Pt. Hope will be: CHESTER FRANKSON, SR. at (907) 368-2054 (Home).

(15) The Village of Pt. Lay

For purposes of this Agreement, the individuals to contact for the Village of Pt. Lay will be: JULIUS REXFORD (907) 833-4592 (Home), (907) 833-2214 (Work), (907) 833-2320 (Fax), THOMAS NUKAPIAK (907) 833-6467 (Home), (907) 833-3838.

(16) The Village of Kivilina

For the purposes of this Agreement, the individuals to contact for the Village of Kivilina will be: \_\_\_\_\_.

(17) The Village of Little Diomede

For the purposes of this Agreement, the individuals to contact for the Village of Little Diomede will be: \_\_\_\_\_.

(18) The Village of Wales

For the purposes of this Agreement, the individuals to contact for the Village of Wales will be: \_\_\_\_\_.

(19) The Village of Savoonga

For the purposes of this Agreement, the individuals to contact for the Village of Savoonga will be: George Noonwook at (907) 984-2461 and Isaac Kulowiyi at (907)984-6123.

(20) The Village of Gambell

For the purposes of this Agreement, the individuals to contact for the Village of Gambell will be: .Merlin Koonooka at (907) 985-5113 or (907) 434-1180 (cell), and Bruce Boolowon at (907) 985-5212.

(21) The AEWG

For purposes of this Agreement, the individuals to contact for the AEWG shall be: JOHNNY AIKEN at (907) 852-2392.

## **SECTION 207. SUBSISTENCE WHALE HUNTING BOATS.**

The following is a list of the number of boats each of the Subsistence Participants plan to use:

(1) Boats Owned/Used by Whaling Captains of Nuiqsut (NWCA)

The subsistence whaling crews of the Village of Nuiqsut plan to use (16) twelve boats for subsistence whale hunting during the late summer and fall of 2013.

(2) Boats Owned/Used by Whaling Captains of Kaktovik (KWCA)

The subsistence whaling crews of the Village of Kaktovik plan to use (6) eight boats for subsistence whale hunting during the late summer and fall of 2013.

(3) Boats Owned/Used by Whaling Captains of Barrow (BWCA)

The subsistence whaling crews of the Village of Barrow plan to use (34) forty boats for subsistence whale hunting during the late summer and fall of 2013.

(4) Boats Owned/Used by Whaling Captains of Wainwright (WWCA)

The subsistence whaling crews of the Village of Wainwright plan to use (4) four boats for subsistence whale hunting during the fall of 2013.

(5) Boats Owned/Used by Whaling Captains of Pt. Hope (Pt. HWCA)

The subsistence whaling crews of the Village of Pt. Hope plan to use (14) ten boats for subsistence whale hunting during the late fall of 2013.

(6) Boats Owned/Used by Whaling Captains of Pt. Lay (Pt. LWCA)

The subsistence whaling crews of the Village of Pt. Lay plan to use (4) four boats for subsistence whale hunting during the fall of 2013.

If any additional boats are put in use by subsistence whaling crews, the Industry Participants will be notified promptly through the Com-Center.

## TITLE III – BARGE AND TRANSIT VESSEL OPERATIONS

### SECTION 301. IN GENERAL.

A Participant may employ barges or transit vessels to transport materials through the Beaufort Sea or Chukchi Sea during the term of this Agreement. Any Industry Participant who employs a barge or transit vessel to transport materials through the Beaufort Sea or Chukchi Sea during the term of this Agreement shall require the barge or transit vessel operator to comply with Sections 201, 205(b) and 302 of this Agreement while providing services to that Industry Participant.

### SECTION 302. BARGE AND TRANSIT VESSEL OPERATIONS.

#### (a) Reporting Positions for Barge or Transit Vessels Owned or Operated by industry Participants.

(1) All barge, transit, or cable laying vessels shall report to the appropriate Com-Center at least once every six hours commencing with a call at approximately 06:00 hours. Each call shall report the following information:

(A) Barge, transit, or cable laying vessel name, operator of vessel, charterer or owner of vessel, and the project or entity the vessel is transporting materials for.

(B) Barge, transit, or cable laying vessel location, speed, and direction.

(C) Plans for barge, transit, or cable laying vessel movement between the time of the call and the time of the next call. The final call of the day shall include a statement of the barge or transit vessel's general area of expected operations for the following day, if known at that time.

EXAMPLE: This is the Arctic Endeavor, operated by \_\_\_\_\_ for \_\_\_\_\_ in the Chukchi Sea. We are currently at \_\_\_\_' \_\_\_\_ north \_\_\_\_' \_\_\_\_ west, proceeding SE at \_\_\_\_ knots. We will proceed on this course for \_\_\_\_ hours and will report location and direction at that time.

(2) The appropriate Com-Center also shall be notified if there is any significant change in plans, such as an unannounced start-up of operations or significant deviations from announced course, and such Com-Center shall notify all whalers of such changes. A call to the appropriate Com-Center shall be made regarding any unsafe or unanticipated ice conditions.

**(b) Operator Duties.**

All barge or transit vessel operators are responsible for the following requirements.

- (1) Monitoring VHF Channel 16. All barge and transit vessel operators shall monitor marine VHF Channel 16 at all times.
- (2) Avoidance of Whale Hunting Crews and Areas. It is the responsibility of each Industry Participant and barge or transit vessel operator to determine the positions of their barge or transit vessels and to exercise due care in avoiding any areas where subsistence whale hunting is active.
- (3) Vessel-to-Vessel Communication. After any barge or transit vessel owned or operated by any Industry Participant has been informed of or has determined the location of subsistence whale hunting boats in its vicinity, the Marine Mammal Observer / Inupiat Communicator shall contact those boats in order to coordinate movement and take necessary avoidance precautions.

**(c) Routing Barge and Transit Vessels.**

- (1) All barge or transit vessel routes shall be planned so as to minimize any potential conflict with bowhead whales or subsistence whaling activities. All barges and transit vessels shall avoid areas of active or anticipated whaling activity, as reported pursuant to Section 202.
- (2) Beaufort Sea. Vessels transiting east of Bullen Point to the Canadian border should remain at least five (5) miles offshore during transit along the coast, provided ice and sea conditions allow.
- (3) Chukchi Sea. Vessels should remain as far offshore as weather and ice conditions allow, and at all times at least five (5) miles offshore during transit.
- (4) Safe Harbor / Loitering. Notwithstanding paragraphs 2 and 3, from August 31 to October 31 vessels in the Chukchi Sea or Beaufort Sea shall remain at least 20 miles offshore of the coast of Alaska from Icy Cape in the Chukchi Sea to Pitt Point on the east side of Smith Bay in the Beaufort Sea whether in transit or engaging in activities in support of oil and gas operations, unless ice conditions or an emergency that threatens the safety of the vessel or crew prevents compliance with this requirement. This paragraph shall not apply to vessels actively engaged in transit to or from a coastal community to conduct crew changes or logistical support operations.

**(d) Vessel Speeds.**

Barge and transit vessels shall be operated at speeds necessary to ensure no physical contact with whales occurs, and to make any other potential conflicts with bowhead whales or whalers unlikely. Vessel speeds shall be less than 10 knots in the proximity of feeding whales or whale aggregations.

**(e) Vessels Operating in Proximity of Bowhead Whales.**

If any barge or transit vessel inadvertently approaches within 1.6 kilometers (1 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales by taking one or more of the following actions, as appropriate:

- (1) reducing vessel speed to less than 5 knots within 900 feet of the whale(s);
- (2) steering around the whale(s) if possible;
- (3) operating the vessel(s) in such a way as to avoid separating members of a group of whales from other members of the group;
- (4) operating the vessel(s) to avoid causing a whale to make multiple changes in direction; and
- (5) checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.

**(f) Marine Mammal Sighting Data.**

Industry Participants whose operations are limited exclusively to barge or vessel traffic will submit to the AEWG and NSB DWM all marine mammal sighting data.

## TITLE IV – VESSELS, TESTING, AND MONITORING

### SECTION 401. INDUSTRY PARTICIPANT VESSELS AND EQUIPMENT.

#### (a) List of Vessels and Equipment Required.

Each Industry Participant engaged in oil and gas operations shall provide a list identifying all vessels or other equipment (including but not limited to boats, barges, aircraft, or similar craft) that are owned and/or operated by, or that are under contract to the Industry Participants, for use in the Beaufort Sea or Chukchi Sea for oil and gas operations or for implementation of such Industry Participant's monitoring plan. Vessels and equipment used for oil and gas operations shall be listed in Attachment II, and vessels and equipment used for monitoring plans shall be listed in Attachment III.

#### (b) Only Listed Vessels and Equipment (or Like Vessels and Like Equipment) May Be Used.

(1) **NONE OF THE INDUSTRY PARTICIPANTS INTENDS TO OPERATE ANY VESSEL OR EQUIPMENT (EXCEPT FOR LIKE VESSELS OR LIKE EQUIPMENT) NOT IDENTIFIED IN THE LISTS REQUIRED UNDER SUBSECTION (a) DURING THE TERM OF THIS AGREEMENT.**

(2) Notwithstanding paragraph 1, if any Industry Participant decides to use different vessels or equipment or additional vessels or equipment, such vessels and equipment shall be used only for purposes identified in Attachments II or III; and the AEWC and the whaling captains of Nuiqsut, Kaktovik, Barrow, Wainwright, Pt. Hope, and Pt. Lay shall be notified promptly through the appropriate Com-Center, as identified in Section 203 of this Agreement, and in writing, of their identity and their intended use, including location of use.

## **SECTION 402. SOUND SIGNATURE TESTS.**

### **(a) Sound Source Verification Testing.**

(1) Geophysical Equipment. For purposes of obtaining a sound signature for Industry Participants' geophysical equipment, the Industry Participants shall have initiated a test of all geophysical equipment within 72 hours of initiating or having initiated operations in the Beaufort Sea or Chukchi Sea. Such tests shall be conducted as set forth in section 402(b).

(2) Vessels. For vessels engaged in geophysical activity, Industry Participants will conduct a sound source verification test for all geophysical equipment used for geophysical activity. Each Industry Participant shall establish a sound source verification range or Industry Participants may participate jointly in establishing a range for the Chukchi Sea and Beaufort Sea, or both. A separate range shall be used for the Chukchi Sea and Beaufort Sea, and vessels shall use the appropriate range for each sea in which they operate. For testing each vessel shall proceed through the range and record information on the date, time, vessel speed, vessel route, vessel load, weather conditions, and equipment operating on the vessel (all noise generating equipment on the vessel, other than geophysical equipment subject to separate testing under paragraph (1), shall be in operation while the vessel is proceeding through the range). The range should be established near a location where details on wind speed and direction are regularly monitored and archived.

### **(b) Mutual Agreement on Site for Testing; Advance Notice Required.**

(1) In General. Each geophysical equipment sound signature test shall be conducted at a site mutually agreed upon by the Industry Participant conducting such test and the AEW. Each Industry Participant conducting such sound signature test(s) will make a good faith effort to provide three (3) weeks advance notice to the AEW and the NSB DWM of its intent to perform each test.

(2) Beaufort Sea Testing. For geophysical equipment sound signature tests conducted in the Beaufort Sea, the Industry Participant conducting such tests shall provide transportation for an appropriate number of representatives from: the AEW, the whaling captains of the Villages of Barrow, Nuiqsut, and Kaktovik, and the NSB DWM to observe the sound signature tests.

(3) Chukchi Sea Testing. For geophysical equipment sound signature tests conducted on vessels to be used in the Chukchi Sea, the Industry Participant(s) conducting such tests shall provide transportation for an appropriate number of representatives from: the AEWC, the whaling captains of the Villages of Barrow, Wainwright, Pt. Lay, and Pt. Hope, and the NSB DWM to observe the sound signature tests.

**(c) Sound Signature Data to be Made Available.**

(1) Within fourteen (14) days of completing the sound signature field tests for geophysical equipment and within thirty (30) days of the end of the operating season for sound source verification ranges, each Industry Participant and/or its contractor conducting such test(s) will make preliminary and final quality controlled results of the sound signature test(s) available upon request to the AEWC and the NSB DWM. The Industry Participant and/or its contractor will also provide the AEWC and the NSB DWM the preliminary analysis of that data, as well as any other applicable sound signature data that is available and that the AEWC, the NSB DWM, and the Industry Participant agree is relevant to understanding the potential noise impacts of the proposed operations to migrating bowhead whales or other affected marine mammals.

(2) Once completed the final data analysis will be provided to the AEWC and the NSB DWM upon request. The final data report for the sound source verification testing shall be provided to the NSB DWM and the AEWC no later than December 31, 2013.

(3) Any Industry Participant who prepares a model of the sound signature of its vessels and operations, whether before or after the sound signature test, will provide copies of those models and any related analysis to the AEWC and the NSB DWM upon request.

## **SECTION 403. MONITORING PLANS.**

### **(a) Monitoring Plan Required.**

(1) Each Industry Participant agrees to prepare and implement a monitoring plan to collect data designed to determine the potential effects of its oil and gas operations on fall migrating bowhead whales.

(2) The monitoring plans shall be designed in cooperation with the AEWG, the NSB DWM, and NOAA Fisheries, together with the Bureau of Ocean Energy Management (BOEM) when operating in Federal waters. If additional outside review is requested by any of the above entities, the Industry Participant will evaluate the request on a case by case basis.

### **(b) Beaufort Sea Monitoring Plans.**

In the Beaufort Sea, the monitoring plans should focus on the identity, timing, location, and numbers of marine mammals and their behavioral responses to the noise source. The monitoring plans will place emphasis on understanding potential impacts from industrial sounds on bowhead whales.

### **(c) Chukchi Sea Monitoring Plans.**

In the Chukchi Sea, the monitoring plans should focus on the identity, timing, location, and numbers of marine mammals and their behavioral responses to the noise source. The monitoring plans will place emphasis on understanding potential impacts from industrial sounds on bowhead whales.

### **(d) Use of Prior Information and Peer Reviewed Data.**

(1) Prior impact study results shall be incorporated into the monitoring plans prepared by each Industry Participant as applicable.

(2) Each monitoring plan for oil and gas operations shall be subject to peer review by stakeholders on a peer review panel identified by NOAA Fisheries at the 2013 Open Water Season Peer Review Meeting, convened by NOAA Fisheries. Draft plans will be submitted to the NSB DWM and AEWG no later than two weeks prior to the 2013 Open Water Peer Review Meeting.

**(e) Raw Data, Communication, and Summary Required.**

- (1) Each Industry Participant conducting site-specific monitoring will:
  - (A) after quality control reviews are completed, make electronic data, available to the NSB DWM at the end of the season.
  - (B) permit and encourage open communications among their contractors and the AEWC and NSB DWM.
- (2) Each Industry Participant will submit a summary of monitoring plan results and progress to the AEWC and NSB DWM every two weeks during the operating season.

**SECTION 404. CUMULATIVE NOISE IMPACTS STUDY.**

Each Industry Participant further agrees to provide its monitoring plan and sound signature data, for use in a cumulative effects analysis of the multiple sound sources and their possible relationship to any observed changes in marine mammal behavior, to be undertaken pursuant to a Cumulative Noise Impacts Study.

The study design for the Cumulative Impacts Study shall be developed through a Cumulative Impacts Workshop to be organized by the North Slope Borough in the winter of 2013/2014. The results of this workshop will be presented at the 2014 Open Water Meeting.

**TITLE V – AVOIDING CONFLICTS DURING THE OPEN WATER SEASON**

Industry Participants are reminded that Sections 101(a)(5)(A) and (D) of the Marine Mammal Protection Act provide, among other things, that the Secretary can authorize the incidental taking of small numbers of marine mammals of a species or population stock if the Secretary finds, among other things, that the total of such takings during the authorized period **will not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses.**

The following Operating Guidelines apply in the Beaufort Sea and Chukchi Sea, except as otherwise specified and in all cases with due regard to environmental conditions and operational safety. These Operating Guidelines are in addition to any permit restrictions or stipulations imposed by the applicable governmental agencies.

**SECTION 501. GENERAL PROVISIONS FOR AVOIDING INTERFERENCE WITH BOWHEAD WHALES OR SUBSISTENCE WHALE HUNTING ACTIVITIES.**

**(a) Routing Vessels and Aircraft.**

(1) All vessel and aircraft routes shall be planned so as to minimize any potential conflict with bowhead whales or bowhead subsistence whaling activities. All vessels shall avoid areas of active or anticipated whaling activity (as reported pursuant to Section 202).

(2) Beaufort Sea. Vessels transiting east of Bullen Point to the Canadian border should remain at least five (5) miles offshore during transit along the coast, provided ice and sea conditions allow.

(3) Chukchi Sea. Vessels should remain as far offshore as weather and ice conditions allow, and at least five (5) miles offshore during transit.

(4) Safe Harbor / Loitering. Notwithstanding paragraphs 2 and 3, from August 31 to October 31 vessels in the Chukchi Sea or Beaufort Sea shall remain at least 20 miles offshore of the coast of Alaska from Icy Cape in the Chukchi Sea to Pitt Point on the east side of Smith Bay in the Beaufort Sea whether in transit or engaging in activities in support of oil and gas operations unless ice conditions or an emergency that threatens the safety of the vessel or crew prevents compliance with this requirement. This paragraph shall not apply to vessels actively engaged in transit to or from a coastal community to conduct crew changes or logistical support operations.

**(b) Aircraft Altitude Floor and Flight Path.**

(1) AIRCRAFT SHALL NOT OPERATE BELOW 1500 FEET unless the aircraft is engaged in marine mammal monitoring, approaching, landing or taking off, or unless engaged in providing assistance to a whaler or in poor weather (low ceilings) or any other emergency situations. Aircraft engaged in marine mammal monitoring shall not operate below 1500 feet in areas of active whaling; such areas to be identified through communications with the Com-Centers.

(2) Except for airplanes engaged in marine mammal monitoring, aircraft shall use a flight path that keeps the aircraft at least five (5) miles inland until the aircraft is directly south of its offshore destination, then at that point it shall fly directly north to its destination.

**(c) Vessel Speeds.**

Vessels shall be operated at speeds necessary to ensure no physical contact with whales occurs, and to make any other potential conflicts with bowhead whales or whalers unlikely. Vessel speeds shall be less than 10 knots in the proximity of feeding whales or whale aggregations.

**(d) Vessels Operating in Proximity of Bowhead Whales.**

If any vessel inadvertently approaches within 1.6 kilometers (1 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales by taking one or more of the following actions, as appropriate:

- (1) reducing vessel speed to less than 5 knots within 900 feet of the whale(s);
- (2) steering around the whale(s) if possible;
- (3) operating the vessel(s) in such a way as to avoid separating members of a group of whales from other members of the group;
- (4) operating the vessel(s) to avoid causing a whale to make multiple changes in direction; and
- (5) checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.

## SECTION 502. GEOPHYSICAL ACTIVITY LIMITATIONS.

The following operating limitations are to be observed and the operations are to be accompanied by a monitoring plan as set forth in Section 403 and Attachment III of this Agreement. The Industry Participants conducting geophysical activity agree to coordinate the timing and location of such activity so as to reduce, by the greatest extent reasonably possible, the level of noise energy entering the water from such activity at any given time and at any given location.

### (a) Limitations on Geophysical Activity in the Beaufort Sea.

All geophysical activity in the Beaufort Sea shall be conducted in accordance with the terms set forth below.

(1) Kaktovik: No geophysical activity from the Canadian Border to the Canning River (146 deg. 4 min. W) from 25 August to close of the fall bowhead whale hunt in Kaktovik and Nuiqsut.<sup>2</sup> From August 10 to August 25, Industry Participants will communicate and collaborate with AEWG on any planned vessel movement in and around Kaktovik and Cross Island to avoid impacts to whale hunt.

(2) Nuiqsut:

A. Pt. Storkerson (~148 deg. 42 min. W) to Thetis Island (~150 deg. 10.2 min. W).

(i) *Inside the Barrier Islands*: No geophysical activity prior to July 25. Geophysical activity is allowed from July 25 until completion of operations<sup>3</sup>

(ii). *Outside the Barrier Islands*: No geophysical activity from August 25 to close of fall bowhead whale hunting in Nuiqsut. Geophysical activity is allowed at all other times.

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<sup>2</sup> The bowhead whale subsistence hunt will be considered closed for a particular village when the village Whaling Captains' Association declares the hunt ended or the village quota has been exhausted (as announced by the village Whaling Captains' Association or the AEWG), whichever occurs earlier.

<sup>3</sup> Geophysical activity allowed in this area after August 25 shall include a source array of no more than 12 air guns, a source layout no greater than 8 m x 6 m, and a single source volume no greater than 880 in<sup>3</sup>.

b. Canning River (~146 deg. 4 min. W) to Pt. Storkerson (~148 deg. 42 min. W): No geophysical activity from August 25 to the close of bowhead whale subsistence hunting in Nuiqsut.

(3) Barrow: No geophysical activity from Pitt Point on the east side of Smith Bay (~152 deg. 15 min. W) to a location about half way between Barrow and Peard Bay (~157 deg. 20 min. W) from September 15 to the close of the fall bowhead whale hunt in Barrow.

**(b) Limitations on Geophysical Activity in the Chukchi Sea.**

All geophysical activity in the Chukchi Sea shall be conducted in accordance with the terms set forth below.

(1) Beginning September 15, and ending with the close of the fall bowhead whale hunt,<sup>4</sup> if Wainwright, Pt. Lay, or Pt. Hope intend to whale in the Chukchi Sea, no more than two geophysical activities employing geophysical equipment will occur at any one time in the Chukchi Sea. During the fall bowhead whale hunt, geophysical equipment will not be used by Participants within 30 miles of any point along the Chukchi Sea coastline. Industry Participants will contact the Whaling Captains' Associations of each of those villages to determine if a village is prepared to whale and will notify the AEWC of any response.

(2) Safe harbor will be at sites selected by the Industry Participants and the AEWC. Safe harbor sites will be agreed upon no later than the beginning of operations and shall be listed in Attachment IV. However, a vessel captain will seek safety for his assets (vessel and personnel) as is his duty under the Law of the Sea.

(3) Any vessel operating within 60 miles of the Chukchi Sea coast will follow the communications procedures set forth in Title II of this Agreement. All vessels will adhere to the conflict avoidance measures set forth in Section 501 of this Agreement.

(4) If a dispute should arise, the resolution process set forth in Section 106 of this Agreement shall apply.

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<sup>4</sup> The bowhead whale subsistence hunt will be considered closed when village Whaling Captains' Associations of Wainwright, Pt. Lay, and Pt. Hope have each declared that (A) they do not intend to hunt, (B) their village hunt has ended, or (C) the village quota has been exhausted (as announced by the village Whaling Captains' Association or the AEWC), whichever occurs earlier.

(5) Barrow: No geophysical activity from Pitt Point on the east side of Smith Bay (~152 deg. 15 min. W) to a location about half way between Barrow and Peard Bay (~157 deg. 20 min. W) from September 15 to the close of the fall bowhead whale hunt in Barrow.

(6) Notwithstanding any other provision of this Agreement, any Industry Participant who engages exclusively in geophysical activities that are conducted at least 45 miles or more from the Alaska coast in the Chukchi Sea shall only be responsible for complying with Title I (excluding Sections 104(c)(4) and 108(a) and (b)) and Sections 201, 205(b), 206, 501, and this subsection 502(b) of this Agreement. For the avoidance of doubt, an Industry Participant described in this subsection 502(b) shall be subject to the requirements of Section 203 only to the extent of one Com-Center at the closest community to the seismic acquisition area.

### **SECTION 503. DRILLING AND PRODUCTION.**

#### **(a) Camden Bay.**

For exploratory drilling and production between 144 deg. W and the Canning River (~146 deg. 4 min. W), zero discharge of:

- (1) drilling fluids;
- (2) cuttings after 20" casing;
- (3) treated sanitary and gray water; and
- (4) ballast and bilge water.

#### **(b) Drilling Operations in the Beaufort Sea East of Cross Island.**

No drilling equipment or related vessels used for at-sea oil and gas operations shall be onsite at any offshore drilling location east of Cross Island from 25 August until the close of the bowhead whale hunt in Nuiqsut and Kaktovik. However, such equipment may remain within the Beaufort Sea in the vicinity of 71 degrees 25 minutes N and 146 degrees 4 minutes W., or at the edge of the Arctic ice pack, whichever is closer to shore.

**(c) Drilling Operations in the Beaufort Sea West of Cross Island.**

In 2013, no drilling equipment or related vessels used for at-sea oil and gas operations shall be moved onsite at any location outside the barrier islands west of Cross Island until the close of the bowhead whale hunt in Barrow.

**(d) Oil Spill Mitigation Agreement.**

Industry Participants engaged in drilling operations agree to enter into a binding oil spill mitigation agreement with the Alaska Eskimo Whaling Commission, the North Slope Borough, and the Inupiat Community of the Arctic Slope to provide for hunter transport to alternate hunting locations in the event of an oil spill. The agreement shall be attached as Attachment V.

**SECTION 504. SHORE-BASED SERVICE AND SUPPLY AREAS.**

Shore-based service and supply areas used by Industry Participants shall be located and operated so as to ensure compliance with the terms of this Agreement.

**SECTION 505. TERMINATION OF OPERATIONS AND TRANSIT THROUGH THE BERING STRAIT.**

Except as provided in Title VI, all Industry Participant vessels shall complete operations in time to allow such vessels to complete transit through the Bering Strait to a point south of 59 degrees North latitude no later than November 15, 2013. Any Industry Participant vessel that encounters weather or ice that will prevent compliance with the date in the preceding sentence shall coordinate its transit through the Bering Strait to a point south of 59 degrees North latitude with the appropriate Com-Centers listed in Section 203. All Industry Participant vessels shall, weather and ice permitting, transit east of St. Lawrence Island and no closer than 10 miles from the shore of St. Lawrence Island.

## **TITLE VI – LATE SEASON SEISMIC OPERATIONS**

### **SECTION 601. IN GENERAL.**

Notwithstanding any other provision of this Agreement, any Industry Participant who engages exclusively in geophysical activities that are conducted at least 5 miles or more from the Alaska coast in the Beaufort Sea or Chukchi Sea and begin on or after October 1, 2013 shall only be responsible to comply with Title I (excluding Sections 104(c)(4) and 108(a) and (b)) and Sections 201, 205(b), 206, 502(a), and 602 of this Agreement. For the avoidance of doubt, an Industry Participant described in this Section 601 shall not be subject to the requirements of Section 203 including but not limited to funding of Com-Centers, providing certain equipment, training and providing representatives as designated operators of Com-Centers.

### **SECTION 602. VESSEL OPERATIONS.**

#### **(a) Reporting Positions When Vessels Come Within 40 Miles of the Coast.**

(1) A vessel subject to this section operating within 40 miles of the Alaska coast shall report to the appropriate Com-Center, if open, at least once every six hours commencing with a call at approximately 06:00 hours. Each call shall report the following information:

(A) Vessel name, operator of vessel, charter or owner of vessel, and the project or entity the vessel is conducting operations for.

(B) Vessel location, speed, and direction.

(C) Plans for vessel movement between the time of the call and the time of the next call. The final call of the day shall include a statement of the vessel's general area of expected operations for the following day, if known at that time.

EXAMPLE: This is the Arctic Endeavor, operated by \_\_\_\_\_ for \_\_\_\_\_ in the Chukchi Sea. We are currently at \_\_\_'\_\_\_ north \_\_\_'\_\_\_ west, proceeding SE at \_\_\_\_\_ knots. We will proceed on this course for \_\_\_ hours and will report location and direction at that time.

(2) The appropriate Com-Center, if open, also shall be notified if there is any significant change in plans, such as an unannounced start-up of operations or significant deviations from announced course, and such Com-Center shall notify all whalers of such changes. A call to the appropriate Com-Center shall be made regarding any unsafe or unanticipated ice conditions.

**(b) Operator Duties.**

All vessel operators subject to this title are responsible for the following requirements.

(1) Monitoring VHF Channel 16. All vessel operators shall monitor marine VHF Channel 16 at all times.

(2) Avoidance of Whale Hunting Crews and Areas. It is the responsibility of each Industry Participant and vessel operator to determine the positions of their vessels and to exercise due care in avoiding any areas where subsistence whale hunting is active.

(3) Vessel-to-Vessel Communication. After any vessel owned or operated by any Industry Participant has been informed of or has determined the location of subsistence whale hunting boats in its vicinity, the Marine Mammal Observer / Inupiat Communicator shall contact those boats in order to coordinate movement and take necessary avoidance precautions.

**(c) Routing Vessels.**

(1) All vessel routes within 40 miles of the Alaska coast shall be planned so as to minimize any potential conflict with bowhead whales or subsistence whaling activities. All vessels shall avoid areas of active or anticipated whaling activity, as reported pursuant to Section 202.

(2) Beaufort Sea. Vessels transiting east of Bullen Point to the Canadian border should remain at least five (5) miles offshore during transit along the coast, provided ice and sea conditions allow.

(3) Chukchi Sea. Vessels should remain as far offshore as weather and ice conditions allow, and at all times at least five (5) miles offshore during transit.

(4) Safe Harbor / Loitering. Notwithstanding paragraphs 2 and 3, from August 31 to October 31 vessels in the Chukchi Sea or Beaufort Sea shall remain at least 20 miles offshore of the coast of Alaska from Icy Cape in the Chukchi Sea to Pitt Point on the east side of Smith Bay in the Beaufort Sea whether in transit or engaging in activities in support of oil and gas operations unless ice conditions or an emergency that threatens the safety of the vessel or crew prevents compliance with this requirement.

**(d) Vessel Speeds.**

Vessels shall be operated at speeds necessary to ensure no physical contact with whales occurs, and to make any other potential conflicts with bowhead whales or whalers unlikely. Vessel speeds shall be less than 10 knots in the proximity of feeding whales or whale aggregations.

**(e) Vessels Operating in Proximity of Bowhead Whales.**

If any vessel inadvertently approaches within 1.6 kilometers (1 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales by taking one or more of the following actions, as appropriate:

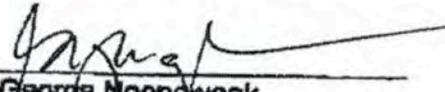
- (1) reducing vessel speed to less than 5 knots within 900 feet of the whale(s);
- (2) steering around the whale(s) if possible;
- (3) operating the vessel(s) in such a way as to avoid separating members of a group of whales from other members of the group;
- (4) operating the vessel(s) to avoid causing a whale to make multiple changes in direction; and
- (5) checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.

**(f) Marine Mammal Sighting Data.**

Industry Participants whose operations are subject to this title will submit to the AEW and NSB DWM all marine mammal sighting data.

## TITLE VII - PARTICIPANTS

This Agreement shall be binding and effective when signed by the duly authorized representatives of the Participants. Signatures may be by facsimile on separate pages.

  
George Moongwook  
AEWC Chairman  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Harry Brower, Jr.  
AEWC Commissioner for Barrow  
Dated: \_\_\_\_\_

  
Merlin Koonooka  
AEWC Commissioner for Gambell  
Dated: 03/13/13

\_\_\_\_\_  
Joseph Kaleak  
AEWC Commissioner for Kaktovik  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Raymond Hawley  
AEWC Commissioner for Kivalina  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Ronald Ozenna, Jr.  
AEWC Commissioner for Little  
Diomedes  
Dated: \_\_\_\_\_

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\_\_\_\_\_  
George Noongwook

AEWC Chairman

Dated: \_\_\_\_\_

*Harry Brower, Jr.*  
\_\_\_\_\_  
Harry Brower, Jr.

AEWC Commissioner for Barrow

Dated: *6 March 2013*

\_\_\_\_\_  
Merlin Koonooka

AEWC Commissioner for Gambell

Dated: \_\_\_\_\_

\_\_\_\_\_  
Joseph Kaleak

AEWC Commissioner for Kaktovik

Dated: \_\_\_\_\_

\_\_\_\_\_  
Raymond Hawley

AEWC Commissioner for Kivalina

Dated: \_\_\_\_\_

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Ronald Ozenna, Jr.

AEWC Commissioner for Little

Diomede

Dated: \_\_\_\_\_

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George Noongwook  
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Harry Brower, Jr.  
AEWC Commissioner for Barrow  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Merlin Koonooka  
AEWC Commissioner for Gambell  
Dated: \_\_\_\_\_

Joseph Kaleak  
\_\_\_\_\_  
Joseph Kaleak  
AEWC Commissioner for Kaktovik  
Dated: 3-12-13

\_\_\_\_\_  
Raymond Hawley  
AEWC Commissioner for Kivalina  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Ronald Ozenna, Jr.  
AEWC Commissioner for Little  
Diomedes  
Dated: \_\_\_\_\_

### TITLE VII - PARTICIPANTS

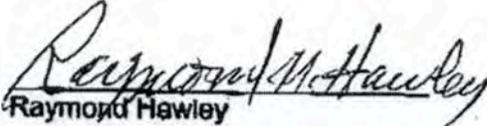
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\_\_\_\_\_  
George Noongwook  
AEWC Chairman  
Dated: \_\_\_\_\_

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Harry Brower, Jr.  
AEWC Commissioner for Barrow  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Merlin Kaonooka  
AEWC Commissioner for Gambell  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Joseph Kaleak  
AEWC Commissioner for Kaktovik  
Dated: \_\_\_\_\_

  
\_\_\_\_\_  
Raymond M. Hawley  
AEWC Commissioner for Kivalina  
Dated: 3-14-13

\_\_\_\_\_  
Ronald Ozenna, Jr.  
AEWC Commissioner for Little  
Diomedea  
Dated: \_\_\_\_\_

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AEWC Chairman

Dated: \_\_\_\_\_

\_\_\_\_\_  
Harry Brower, Jr.

AEWC Commissioner for Barrow

Dated: \_\_\_\_\_

\_\_\_\_\_  
Merlin Koonooka

AEWC Commissioner for Gambell

Dated: \_\_\_\_\_

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Joseph Kafek

AEWC Commissioner for Kaktovik

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Raymond Hawley

AEWC Commissioner for Kivalina

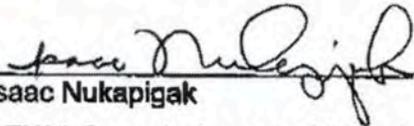
Dated: \_\_\_\_\_

*Ronald Ozenna, Jr.*  
\_\_\_\_\_  
Ronald Ozenna, Jr.

AEWC Commissioner for Little

Diomede

Dated: March 27-13

  
Isaac Nukapigak  
AEWC Commissioner for Nuiqsut  
Dated: 3/11/13

\_\_\_\_\_  
Rex A. Rock, Sr.  
AEWC Commissioner for Pt. Hope  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Julius Rexford  
AEWC Commissioner for Pt. Lay  
Dated: \_\_\_\_\_

\_\_\_\_\_  
John Hopson, Jr.  
AEWC Commissioner for Wainwright  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Luther Komonaseak  
AEWC Commissioner for Wales  
Dated: \_\_\_\_\_

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Isaac Nukapigak  
AEWC Commissioner for Nuiqsut  
Dated: \_\_\_\_\_

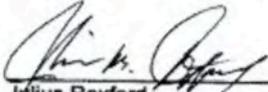
  
\_\_\_\_\_  
Rex A. Rock, Sr.  
AEWC Commissioner for Pt. Hope  
Dated: 3/15/2013

\_\_\_\_\_  
Julius Rexford  
AEWC Commissioner for Pt. Lay  
Dated: \_\_\_\_\_

\_\_\_\_\_  
John Hopson, Jr.  
AEWC Commissioner for Wainwright  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Luther Komonaseak  
AEWC Commissioner for Wales  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Isaac Nukapigak  
AEWC Commissioner for Nuiqsut  
Dated: \_\_\_\_\_

  
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AEWC Commissioner for Pt. Lay  
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Luther Komonaseak  
AEWC Commissioner for Wales  
Dated: \_\_\_\_\_

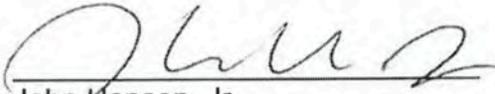
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Rex A. Rock, Sr.  
AEWC Commissioner for Pt. Hope  
Dated: \_\_\_\_\_

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John Hopson, Jr.  
AEWC Commissioner for Wainwright  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Isaac Nukapigak  
AEWC Commissioner for Nuiqsut  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Rex A. Rock, Sr.  
AEWC Commissioner for Pt. Hope  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Julius Rexford  
AEWC Commissioner for Pt. Lay  
Dated: \_\_\_\_\_

  
\_\_\_\_\_  
John Hopson, Jr.  
AEWC Commissioner for Wainwright  
Dated: 3/12/13

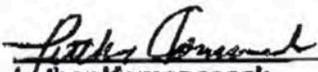
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Luther Komonaseak  
AEWC Commissioner for Wales  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Isaac Nukapigak  
AEWC Commissioner for Nuiqsut  
Dated: \_\_\_\_\_

\_\_\_\_\_  
Rex A. Rock, Sr.  
AEWC Commissioner for Pt. Hope  
Dated: \_\_\_\_\_

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Julius Rexford  
AEWC Commissioner for Pt. Lay  
Dated: \_\_\_\_\_

\_\_\_\_\_  
John Hopson, Jr.  
AEWC Commissioner for Wainwright  
Dated: \_\_\_\_\_

  
\_\_\_\_\_  
Luther Komonaseak  
AEWC Commissioner for Wales  
Dated: 03-14-13

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Name:  
BP Exploration (Alaska) Inc.  
Dated: \_\_\_\_\_

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Name:  
ENI US Operating Company  
Dated: \_\_\_\_\_

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Name:  
Exxon Mobil Corporation  
Dated: \_\_\_\_\_

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Name:  
GX Technology Corp.  
Dated: \_\_\_\_\_

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Name:  
Pioneer Natural Resources Alaska  
Dated: \_\_\_\_\_

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Name:  
Shell Offshore, Inc.  
Dated: \_\_\_\_\_

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Name:  
SAExploration  
Dated: \_\_\_\_\_

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Name:  
TGS  
Dated: \_\_\_\_\_





Director	Johnny Adams	852-0250 WK 852-7724 Home
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**Nuiqsut Volunteer**

<b>Search and Rescue Station</b>	480-6613 (Fire Hall)
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**Kaktovik Volunteer**

<b>Search and Rescue Station</b>	640-6212 (Fire Hall)
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President	Lee Kayotuk	640-5893 Wk 640-6213 Home
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Vice-Pres.	Tom Gordon	640-
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Secretary	Nathan Gordon	640-6925
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Treasurer	Don Kayotuk	640-2947
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Fire Chief	George T. Tagarook	640-6212 WK 640-6728 Home
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**Wainwright Volunteer Search and Rescue**

President Joe Ahmaogak Jr. 763-2826 Home

Vice President John Hopson, Jr. 763-3464 Home

Secretary Raymond Negovanna 763-2102 Home

Treasurer Ben Ahmaogak, Jr. 763-3030 Home

Director Artic Kittick 763-2534 Home

Director John Akpik Unlisted

**Pt. Hope Volunteer Search and Rescue**

Coordinator Willard Hunnicutt, Jr. 368-2774 Work

Fire Chief Willard Hunnicutt, Jr. 368-2774 Work (Note:  
Only contact for Pt. Hope)

**North Slope Borough Disaster Relief Coordinator**

Frederick Brower 852-0284 OFS

## **ATTACHMENT II -- OPERATIONS VESSELS**

### **VESSELS TO BE USED FOR AND IN SUPPORT OF INDUSTRY PARTICIPANTS' OPERATIONS AS IDENTIFIED IN SECTION 401(b)(1)(B)**

[ ALL VESSELS TO BE IDENTIFIED BY COMPANY ]

**NOTE:**

**COPY OF PRESENTATION OF THE INDUSTRY PARTICIPANT  
ATTACHED**

**IDENTIFYING VESSELS TO BE USED FOR AND IN SUPPORT OF THE  
INDUSTRY PARTICIPANTS' OPERATIONS.**

## **ATTACHMENT III -- MONITORING VESSELS**

### **VESSELS TO BE USED FOR AND IN SUPPORT OF THE INDUSTRY PARTICIPANTS MONITORING PLANS AS IDENTIFIED IN SECTION 401(b)(1)(B)**

[ ALL VESSELS TO BE IDENTIFIED BY COMPANY ]

#### **NOTE:**

**COPY OF PRESENTATION OF THE INDUSTRY PARTICIPANT  
ATTACHED**

**IDENTIFYING VESSELS TO BE USED FOR AND IN SUPPORT OF THE  
INDUSTRY PARTICIPANTS' MONITORING PLAN.**

## **ATTACHMENT IV -- SAFE HARBOR**

## **ATTACHMENT V -- OIL SPILL MITIGATION**



## **ATTACHMENT 11**



**BIRD STRIKE/DOWNING FORM**  
**COMPANY: BP Exploration Alaska, INC**  
**PROJECT: 2013 Liberty Development Ancillary Activities**

E-mail form to: [alaskabirdreport@fws.gov](mailto:alaskabirdreport@fws.gov) and BOEM ([william.ingersoll@boem.gov](mailto:william.ingersoll@boem.gov) and [donald.donley@bsee.gov](mailto:donald.donley@bsee.gov) ) within 3-days.

Direct questions and forms to Christina May, 564-4132 or [christina.may@bp.com](mailto:christina.may@bp.com) and Keri Iles, 564-5457 or [keri.iles@bp.com](mailto:keri.iles@bp.com).

Information: [Louise\\_Smith@fws.gov](mailto:Louise_Smith@fws.gov), 907-456-0306, Eiders and Loons: [Shannon\\_Torrence@fws.gov](mailto:Shannon_Torrence@fws.gov) 907-456-0441

Date (DD/MM/YY): \_\_\_\_\_ Time found (00:00–23:59): \_\_\_\_\_

Observer(s): \_\_\_\_\_

Location of vessel in decimal (format: Latitude XX.XXXX longitude XXX.XXXX):

\_\_\_\_\_

Vessel Operational Status: at anchor/adrift or underway/in transit \_\_\_\_\_

Photos taken\*: Y / N Photo numbers: \_\_\_\_\_

Label photo numbers with date and a locator, such as year-month-day-photo number, (e.g. 2013\_0620-photo1)

*\*For dead birds, clear images of wing spread (top and bottom) and head views will be provided*

**ENVIRONMENT**

Light conditions: \_\_\_\_\_ daylight \_\_\_\_\_ dusk (dim light) \_\_\_\_\_ night (dark)

Cloud or Fog cover (circle/darken most appropriate): 0% 25% 50% 75% 100% (completely cloudy or foggy)

General weather when bird was found (e.g. clear, fog, rain, snow, windspeed, moon phase):

\_\_\_\_\_

General weather in past 24 hours: \_\_\_\_\_

Did vessel lights potentially factor into attracting bird to vessel? e.g. were extra lights on due to darkness or a specific operational activity? Y or N Describe: \_\_\_\_\_

**BIRD**

Collision/downing observed? Y or N \_\_\_\_\_

Number of birds in this downing event: \_\_\_\_\_

Species: \_\_\_\_\_ species in AOU codes (e.g. SPEI): \_\_\_\_\_

Sex (if known): male female unknown \_\_\_\_\_ Age (if known): juvenile subadult adult unknown

Bird collided with (describe, if known): \_\_\_\_\_.

Status: (alive, injured, dead, recovered, flew away, etc.) \_\_\_\_\_

Describe injury (if applicable): \_\_\_\_\_

**ADDITIONAL COMMENTS/DESCRIPTION OF EVENT (if known):**

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