GC2 Oil Transit Line Incident

Site Safety and Health Plan

Emergency Response & Post-Emergency Response Operations

Prepared by: BP HSE

March 2, 2006

Site Safety and Health Plan Emergency Response & Post-Emergency Response Operations

General

The Alaska Department of Labor (ADOL) has established the Hazardous Waste Operations and Emergency Response rule to protect the safety and health of workers involved in emergency response to hazardous substance releases. It also includes requirements for worker protection during post-emergency clean-up operations, if it is necessary to remove hazardous substances and materials contaminated with them (e.g., soil contaminated with oil).

This is an emergency plan and post-emergency clean-up plan to comply with these ADOL requirements. Attached to this plan are the ERT/SRT/HAZMAT team operation procedures describing the roles, procedures, and communications of the emergency response teams.

This document is intended for both contractors and BPXA personnel performing the post-emergency clean-up operations, or for off-site post-emergency clean-up operations (e.g., a transportation release) involving BPXA or contractor employees. The document will be made available to any contractor or subcontractor, to employees and their designated representatives, and to OSHA or other regulatory personnel with jurisdiction at the post-emergency clean-up operation.

Contractors are responsible for conducting the clean-up operation in accord with the Site Safety and Health Plan; training of their employees; informing any subcontractors of the provisions and requirements of the Site Safety and Health Plan; and for compliance with all appropriate laws and regulations. Workers are responsible for following the work practices and procedures established in the Site Safety and Health Plan.

Emergency & Post-Emergency Response Operations

Response Name: GC2 Oil Transit Line Date: 3-2-2006

A. Site Characterization and Analysis

Initial Briefing - Map Sketch (Attachment 1). The affected area of the GC2 Transit line event includes areas east of Q and H pads and west of D-pad Lake.

Site Characterization and Analysis form (Attachment 2). Air monitoring data is included in a field form for the safety plan. Maximum readings have been 5% LEL and 0.2 ppm for benzene during initial readings. Recent values as the material has cooled have shown 0% LEL and 0.0 for benzene.

B. Organizational Structure

On Scene Commander: Shawn Groghan/ Henry Harrington

Incident Commander: Greg Alexander/ Randy Selman

Incident Deputy Commander: Darrell Shanholtzer/ Don Luedtke

IMT Safety Officer: Pete Langley/ Vince Pokryfki

Site Safety & Health Officers: Mike Kissee/ Al Koenig/ Mike Adams/ ACS Randy Pittman

Industrial Hygienist: Laura Dickie/ Jeff Carpenter

The On Scene Commander is responsible for directing all post emergency clean-up operations. The Site Safety Officer is a member of the BPXA Safety Department or Environmental Department who is responsible for developing and implementing the Site Safety & Health Plan and inspecting for compliance.

C. Workplan

Initial operations have focused on source control by shutting down operations and closing in GC2 and the associated well pads. ACS initial efforts include containment, free product recovery, and vacuum truck operations. A crew of approximately 20 personnel has been mobilized for the initial efforts. Vacuum trucks are being used in the initial cleanup efforts. Future efforts are anticipated to include a wide variety of heavy equipment including front end loaders, trackhoes, etc. Hand tools of a wide variety will also be used to clean affected tundra areas.

D. Safety and Health Hazards

The primary chemical hazard associated with the GC2 Oil Transit Line incident is crude oil. An MSDS for crude oil is available onsite and at the IMT. Because of the cold temperature, respiratory hazards are minimized and emphasis will be placed upon preventing skin contamination

Other potential hazards include:

- 1. Slips trips and falls
- 2. Uneven walking surfaces
- 3. Heavy lifting
- 4. Snow Cave (Drifting of Snow) and oil undermining snow and permafrost.

| Water/boat hazards | Inhalation hazards |
|--------------------------------|------------------------|
| _X_Heat stress/heat exhaustion | Hydrogen Sulfide |
| _X_ Hypothermia/Frostbite | Carbon Monoxide |
| _X_ Hazards to the eye | <u>X</u> Benzene |
| _X Fire/explosion hazards | _X _Total Hydrocarbons |
| Cuts and abrasions | Others: |
| _X Vehicular/equipment traffic | Others: |

E. Training Program:

Employees involved with site work will comply with appropriate levels of hazardous waste operations training. If respiratory equipment is required, training will comply with 29CFR 1910.134.

F. Pre-entry Briefing:

The Site Safety Officer or the On Scene Commander will conduct pre-entry briefings before commencing work to ensure that workers are informed of the contents of the Site Safety & Health Plan.

G. Effectiveness of Site Safety & Health Plan:

The Site Safety Officer will conduct periodic inspections to determine the effectiveness of the Plan. Any deficiencies will be corrected by the On Scene Commander. Safety (bp) will monitor the project throughout the work shifts, to include monitoring of the atmosphere.

H. Site Control

Response zones will be set up and marked in field locations. As the information becomes available the approximate zones will be outlined in an attached site map. No one will work alone (out of sight) within the cleanup site. If necessary, a buddy system will be established.

Workers will be alerted to an emergency by radio communication, siren or telephone. Medical assistance will be summoned from the Medial Department if necessary. Site radios provide a field communication method for this response effort. A field first aid station has been established and staffed by North Slope medical personnel

I. Engineering Controls: As possible, preference will be placed upon clean up methods such as vacuum trucks and other heavy equipment that will minimize the possibility of skin or other exposure to site cleanup personnel.

J. Work Practices:

Special Work practice instructions will be given as necessary by each site supervisor during site orientation and will be indicated below or appended to this document.

- 1. All activities will be done in accordance with ASH.
- 2. Entry guidelines.
- 3. Benzene Standards as set in bp SOP.
- 4. Proper Hydration for all field personnel will be stressed at all tool box meetings.
- 5. Crew Rotations will follow ASH Cold Weather Protection Guidelines.

K. Personal Protective Equipment:

The initial response effort involved the use of Level C with organic vapor cartridges. Current air monitoring readings have allowed a downgrade to modified level D without the need for respirators. An emphasis has been placed upon skin and cold protection with Tyvek suits over standard artic clothing.

BPXA Emergency & Post-Emergency Response Plan

L. Monitoring Program:

Air Monitoring will be conducted periodically (every two hours) for: Benzene (.3 – 15 ppm), O2 (19.5-23.5 %), H2S (<10% ppm), CO (<25 ppm), and LEL (<10% LEL).

M. Decontamination:

A spill response decontamination trailer has been placed on site just west of the Hot Zone on the pipeline access road for use during clean up activities. Decon work will be performed by trained Haz Mat Techs in accordance with NFPA regulations.

N. Emergency Response

The Mobile Command Center serves as the primary assembly point in the event of an emergency that requires evacuation of site personnel.

O. Plan Addenda

As conditions or work operations change this plan shall be amended with updated information. Events such as PPE changes for various operations shall be noted in addenda to this plan.

Incident Commander

March 2, 2006

March 2, 2006

Attachment 1

Site Map

Attachment 2

Field Safety Data

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Incident Commander

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Incident Safe

March 2, 2006

BPXA Emergency & Post-Emergency Response Plan

Page 6