STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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May 19, 2009

Chuck Stilwell
BP Exploration (Alaska) Inc
P.O. Box 196612
900 East Benson Blvd
Anchorage, AK 99519-6612

Re: Record of Decision (ROD); BPX Abel State 1
Cleanup Complete Determination

Dear Mr. Stilwell:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with BPX Abel State 1 located near Prudhoe Bay, Alaska. Based on the information provided to date, the ADEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment, and this site will be closed.

This decision is based on the administrative record for BPX Abel State 1 which is located in the offices of the Alaska Department of Environmental Conservation (ADEC) in Anchorage, Alaska. This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete Determination.

Introduction

Site Name and Location:
BPX Abel State 1
Prudhoe Bay, Alaska

Name and Mailing Address of Contact Party:
Chuck Stilwell
BP Exploration (Alaska)
P.O. Box 196612
900 East Benson Blvd
Anchorage, AK 99519-6612

Database Record Key and File Number:
ADEC Reckey: 1981360123201
File: 300.38.247
Hazard ID: 4256

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 70

Background
The gravel pad at Abel State 1 was constructed around 1976. One well was drilled at the site in April 1976, then plugged and abandoned that same year. A Phase II assessment conducted in 2007 found diesel contamination in the gravel pad. Contamination at the site is attributed to historical spills and leaks from oil exploration activities.

Contaminants of Concern
During the course of investigation and cleanup at this site, soil samples were analyzed for: diesel range organics (DRO); gasoline range organics (GRO); residual range organics (RRO); benzene, toluene, ethylbenzene and xylenes (BTEX); and polynuclear aromatic hydrocarbons (PAHs). Based on these analyses and knowledge of the contaminant source, the following Contaminant of Concern was identified:

- Diesel Range Organics (DRO)

Cleanup Levels
The cleanup levels for petroleum hydrocarbon-contaminated soil on manmade gravel pads and roads in the Arctic Zone are established in 18 AAC 75.341 Method One, Table A2 and 18 AAC 75.341 Method Two Tables B1 and B2.

A number of factors are considered by ADEC when evaluating site specific cleanup levels in the Arctic Zone including:

- human health (ingestion/inhalation);
- ecological impacts (contamination impacting ecological species other than humans);
- groundwater and surface water quality;
- presence of free phase product; and
- any other factors that might cause a deleterious impact to the environment.

In the Arctic Zone, the migration to surface water pathway is evaluated as the primary migration pathway because the migration to groundwater pathway is not considered applicable due to the presence of continuous permafrost. Impacted surface water can adversely affect both human and ecological receptors, depending on the location of the contaminant source, its proximity to surface waters, and water usage in the impacted area. Therefore the migration to surface water pathway is evaluated as a possible risk to human health (drinking water source) and/or for compliance with Alaska Water Quality standards (18 AAC 70). In addition, the migration to surface water is evaluated as a possible exposure pathway for ecological receptors because of the tundra wetland ecosystem that exists throughout the Arctic region.

Potential future use of the property must also be taken into account when determining closure status. Differentiating between a "Cleanup Complete" and a "Cleanup Complete with Institutional Controls" determination will be based on site specific conditions and exposure pathways as determined by ADEC.

Investigation and Cleanup Activities
A Phase II investigation in 2007 found DRO up to 3,190 mg/kg in a sample of gravel and peat from the base of the pad. The majority of the pad gravel was uncontaminated.

Corrective action was implemented in 2008 with the removal of the entire gravel pad and excavation of the impacted lake sediments. Approximately 9,693 cubic yards (cys) of clean gravel from the pad was hauled to North Prudhoe Bay State #1 and Santa Fe Pad for use as backfill. Approximately 648 cubic yards of contaminated gravel were hauled to East Dock Land Farm for treatment. Excavation below the gravel pad was generally limited to a maximum depth of 1.5 feet below ground surface, as deeper excavation would threaten the thermal stability of the site.

Confirmation samples collected from the base of the pad following removal contained DRO up to 250 mg/kg. Excavated areas of the pad were filled with clean gravel to tundra grade and covered with tundra overburden and will be re-vegetated in accordance with the Site Rehabilitation Plan

Pathway Evaluation
The exposure pathways for human health that were evaluated include the following: migration to surface water, outdoor inhalation of vapors, and direct contact with soil. The inhalation pathways are considered incomplete as the remaining contaminant concentrations are below inhalation cleanup levels. The migration to surface water and direct contact pathways are considered incomplete as the remaining contamination is below the surface and not available to receptors and the site is remote.

The exposure pathway analysis above was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

ADEC Decision
The cleanup actions to date have served to remove contaminated soil from the site. Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as Cleanup Complete on the Department's database.

Although a Cleanup Complete Determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 75.325(i). However, due to the de minimis nature of the remaining contamination, this letter will serve as your approval for future off-site movement and disposal of soil associated with this site. It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please contact the ADEC project manager, Bill O'Connell at (907) 269-3057.

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By,

William O'Connell
Environmental Program Specialist

CC: Gary Schultz, ADNR Fairbanks