

STATE OF ALASKA

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

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File: # 300.38.275
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November 10, 2009

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

Re: Record of Decision; BPX Put River 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 Put River State 1 located near Prudhoe Bay, Alaska. Based on the information provided to date, it has been 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 Put River State 1, which is located in the offices of the 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 Put River State 1
Prudhoe Bay, Alaska

Name and Mailing Address of Contact Party:

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

ADEC Site Identifiers:

Hazard ID #4624

ADEC Reckey # 2001360115203
CS file # 300.38.275

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

Background

One well was drilled at this exploration site in 1969, then plugged and abandoned in 1997. Diesel contamination was found at the pad during a 2008 Phase II investigation, and is likely associated with well drilling activities.

Contaminants of Concern

During the various investigations at this site, soil samples were analyzed for diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polynuclear aromatic hydrocarbons (PAHs). Based on the results of these investigations, the following contaminant of concern was identified:

- 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.

Site Characterization and Cleanup

Corrective action was conducted at this site in 2009 and included removal of the entire gravel pad and the excavation and backfilling of the reserve pit. Hydrocarbon impacted gravel was segregated for reuse based on the Phase II investigation data. Approximately 11,000 cubic yards (cy) of clean gravel were transported to the W Pad or Z pad for beneficial reuse, and approximately 2,700 cy of clean gravel were used onsite as gravel pad and reserve pit backfill. Approximately 9,800 cy of contaminated gravel and tundra was transported to East Dock Landfarm for treatment.

Following removal of the gravel pad, confirmation soil samples were collected from areas where Phase II or field screening data indicated the presence of contamination. DRO was detected up to 308 mg/kg. BTEX and PAHs were not detected above cleanup levels. Excavated areas of the former pad were filled with clean gravel to tundra grade and covered with tundra overburden. These areas will be re-vegetated in accordance with the Site Rehabilitation Plan.

Pathway Evaluation

Following investigation and cleanup at the site, human health exposure to the remaining contaminants in soil was evaluated using ADEC's Exposure Tracking Model. The human health exposure pathways that were evaluated for this decision document included: inhalation of indoor and outdoor air; ingestion of soil; dermal contact with soil; and ingestion of surface water. A summary of this pathway evaluation is included in Table 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Direct Contact with Surface or Sub-Surface Soil	Pathway Incomplete	Because this site is remote, few receptors are, or will be, present in the foreseeable future and the remaining contamination is below the surface and under the most stringent cleanup levels.
Inhalation of Indoor and Outdoor Air	Pathway Incomplete	Because this site is remote, few receptors are, or will be, present in the foreseeable future and the remaining contamination is below the surface and under the most stringent cleanup levels.
Groundwater Ingestion	Pathway Incomplete	Shallow groundwater in the Arctic Zone is not available in sufficient quantity to be used as a drinking water resource
Surface Water Ingestion	Pathway Incomplete	Surface water in the area is not used for drinking water purposes.
Wild Foods Ingestion	Pathway Incomplete	Caribou may graze in the area, but their exposure time is limited. The remaining contaminants are not bio-accumulative and are located in the

		subsurface.
Exposure to Ecological Receptors	De Minimis Exposure	Because of the interaction between surface water, active layer water, and the tundra ecosystem, this pathway is likely complete. However, the contaminant concentrations remaining are below the most stringent cleanup levels, so exposure would not pose a risk.

ADEC Decision

The cleanup actions to date have served to excavate and adequately 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 closed 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). 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.

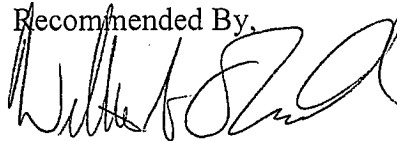
If you have questions about this closure decision, please contact ADEC Project Manager William O'Connell at (907) 269-3057.

Approved By,



Linda Nuechterlein
Environmental Manager

Recommended By,



William O'Connell
Environmental Program Specialist

CC: Gary Schulz, ADNRO