STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: #300.38.150

April 7, 2008

Mark Helmericks and Becky Gay
Colville, Inc.
Pouch 340012 Suite 200
Prudhoe Bay, Alaska 99734

Re: Colville, Inc. (AKA Newco)
Record of Decision

Dear Ms. Gay & Mr. Helmericks:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed review of the environmental records associated with the Colville, Inc. site which is also known as (AKA) Newco. This site had been contaminated by the release of a hazardous substance. Based on the information provided in this report and available environmental records, ADEC has determined that the soil contamination remaining on site exceeds the most stringent ADEC soil cleanup levels, but does not pose an unacceptable risk to human health or the environment. No further remedial action is required, and the site can be closed subject to the conditions outlined in this document.

This decision is based on the administrative record for Colville, Inc. (AKA Newco), 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 ADEC determination.

Introduction

Site Name and Location:
Colville, Inc. (AKA Newco)
Lease Tract 57
Deadhorse, AK 99734

Name and Mailing Address of Contact Party:
Mark Helmericks and Becky Gay
Colville, Inc.
Pouch 340012 Suite 200
Prudhoe Bay, Alaska 99734

Database Record Key and File Number:
ADEC Reckey No. 1989730902540
File No. 300.38.150

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

Background

The Gravel pad was previously used to support the petroleum industry. Activities included storage of waste materials from petroleum drilling by-products. Approximately 14,612 drums, many of which were damaged or leaking, contained petroleum fuels, oils, chemicals, and hazardous substances, were stored on the southern half of the Tract 57 Pad in the early 1980's.

Historic diesel spills and leaks also occurred from mid 1980's to the late 1990's from such activities as drum salvage, fuel sales, waste management, and bulk lubrication sales. Currently this site is leased by Colville Inc. and is used as a fueling station, a general store and for solid waste management. The Alaska Department of Natural Resources (DNR) owns and manages the lease lot.

Cleanup Actions

Cleanup of the site was initiated in 1983. A Notice of Violation (NOV) was sent out by the ADEC to North Slope Borough Salvage June 6th, 1983. A berm was constructed on the northeastern corner of Tract 57 in efforts to contain hazardous substance migration. Contaminated soil and approximately 14,612 drums were removed from site by August 3rd, 1983.

Various leaks and spills occurred on the pad in 1987. A field inspection June 24th 1987 indicated 150 leaky barrels on the south west corner of the pad. Oil sheen was present in the pond behind the pad. By September 2, 1987 the 150 leaky barrels were removed.

Additional site characterization was performed in 1988 which identified additional areas of contamination as well as areas of drum storage. Hundreds of barrels were located at the north end of the pad. It was reported that the barrels were used to store waste oil for eventual incineration via an onsite waste oil burner. A NOV was sent out by the ADEC to Colville Inc. November 25th 1988 regarding the waste oil burner.

Various field inspections performed from 1989 to 1997 indicate various releases of hazardous substances. These events include: visible petroleum staining on the gravel pad, a spill of 30 gallons of waste oil on the northeastern section of the pad, tundra adjacent to pad stained and dead, a diesel spill on the northwest section of the pad, land farming of contaminated soil on the pad, and a diesel spill under a 12,000 gallon above ground storage tank.

A Phase II Site Assessment (SA) in 2005 was performed to evaluate remaining contamination on pad, from previous events. Soil excavations consisted of 22 test pits on the gravel pad and 7 test pits on the surrounding tundra.

Results from the Phase II (SA) indicated that 2 out of the 7 test pits in the tundra excavations, on the southwest corner of property, were contaminated above ADEC cleanup levels. These samples, which were collected at a depth of six inches in the tundra organic mat, contain diesel range organics (DRO) contamination up to 656 mg/kg, and arsenic contamination up to 21.5 mg/kg.

In addition, 3 out of the 22 test pits on the gravel pad excavations indicate contamination above ADEC cleanup levels. Two samples collected in the middle of the pad at a depth of twenty inches had concentrations of arsenic at 8.07 mg/kg, and benzene at 3.89 mg/kg. Samples collected on the southern end of the gravel pad from the tundra pad interface at a depth of forty inches had diesel range organics (DRO) up to 594 mg/kg.

Contaminant of Concern

- Arsenic
- Benzene
- 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);
- water (ground and surface) 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 since the migration to groundwater pathway is not considered applicable due to the presence of continuous permafrost.

The 18 AAC 75.341 Method Two Table B2 regulations also limit soil hydrocarbon concentrations to a "maximum allowable concentration". This concentration was established based on a specific soil type in which hydrocarbon product may become mobile as a separate phase and migrate in the soil. If a petroleum hydrocarbon exceeds a soil saturation limit, there may be an increased risk of migration off the gravel pad to surface water or tundra that has to be evaluated when making environmental decisions. Therefore, the soil type must be evaluated when establishing cleanup levels in the Arctic Zone to ensure the petroleum hydrocarbon does not exceed the residual saturation levels and pose a risk by migrating.

ADEC has evaluated the current site specific information regarding North Slope soil types and considers a coarse gravel soil type to be representative of those gravel pads rather than a fine sandy silt soil that was considered when establishing the Table B2 Arctic Zone levels. The diesel range saturation point in a coarse gravel material is 2200 mg/kg; the gasoline range saturation point is 950 mg/kg with residual range being 4800 mg/kg.

NOTE: Even though the migration to groundwater pathway is not complete in the Arctic Zone, the soil cleanup levels established for the migration to groundwater pathway in the Over 40 inch Zone are considered to be the most stringent cleanup levels, and protective of human health and the environment. If these cleanup levels are achieved at an Arctic Zone site, it will allow for unrestricted closure. In addition, the 18 AAC 75.341 Method One Table A2 cleanup levels may also be considered when making a final closure determination. Either Method One or Method Two migration to groundwater cleanup levels are considered protective to allow full site closure. The guidance document, "Policy for Establishing Cleanup Levels for Sites in the Arctic Zone in Accordance With 18 AAC 75, Article 3," provides additional information for management of residual contamination in the Arctic Zone.

Pathway Evaluation

The human health exposure and/or migration pathways were evaluated in this decision document. The exposure pathways for human health included: inhalation of outdoor air; ingestion of soil; dermal contact with soil; and ingestion of surface water. Both the inhalation and ingestion pathways may be

complete, but soil concentrations did not exceed 18 AAC 75.341 Table B2 risk based cleanup levels for either ingestion or inhalation for benzene and DRO. The ingestion pathway for arsenic exceeds 18 AAC 75.341 Table B1 risk based cleanup levels, but the concentrations are similar to the background upper tolerance limit for arsenic presented in a background arsenic study conducted at Milne Point Unit M Pad, 30 miles west of Deadhorse. Therefore, the exposure risk is considered acceptable.

In the Arctic Zone, 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). The surface water adjacent to this pad is not a drinking water source; therefore, the human exposure pathway is not considered complete. 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. Historic evidence of contaminant migration off the pad to surface water has occurred on site. A recent investigation indicates contaminants are not migrating to surface water and that this pathway has been properly addressed.

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 either De Minimus Exposure or Pathway Incomplete.

ADEC Decision
The information provided to date indicates that the majority of contaminated soil has been removed from the site. Elevated arsenic levels remain on site, but could be attributed to or influenced by background levels already naturally present in the soil. Elevated DRO and benzene also remain on site, but is well below ADEC's method two cleanup levels.
Thus, potential migration of contaminates to the surface water appears unlikely. Further, this site is located in an industrial zone and the contaminated soil is unlikely to pose a risk to workers.

Based on the information presented above, ADEC has determined that no further remedial action will be required at this site subject to the following conditions:

1. A Notice of Environmental Contamination will be recorded on the ADEC database to document that there may be residual contamination remaining on site above the most stringent ADEC cleanup levels;

2. Any proposal to transport soil or groundwater off site requires ADEC approval in accordance with 18 AAC 75.370 (b)

3. Visual Monitoring of surface water adjacent to the pad for sheen is required on an annual basis. Any observations of sheen should be reported to the ADEC project manager.

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.

Site closure (without conditions) can be achieved when soil sampling confirms that all soil meets the most stringent ADEC cleanup levels.

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, Grant Lidren at (907) 269-8685.

Sincerely,

Linda Nuechterlein
Environmental Manager

cc: Gary Schultz, DNR