STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

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

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File: 2110.26.003

October 12, 2006

FILE COPY

Al Gilbert
Alaska Department of Transportation & Public Facilities (ADOT&PF)
5848 East Tudor Road
Anchorage, Alaska 99507

Re: ADOT&PF Girdwood Facility
ADEC Spill #1997210018107: UST Facility ID# 961
Conditional Closure Determination

Dear Mr. Gilbert:

The Alaska Department of Environmental Conservation, Contaminated Sites Program, (ADEC), reviewed the administrative records for the gasoline and diesel fuel release (and subsequent cleanup actions) at the ADOT&PF Girdwood Facility. Based on this review, ADEC has determined that hazardous substance contamination remains at the facility but not at levels that pose an unacceptable risk to human health or the environment. This determination is subject to site specific conditions outlined in this decision document and allows ADEC to conditionally close this site.

This letter summarizes the information considered in making this decision regarding the environmental status of this site.

Introduction

Site name and location:
ADOT&PF Girdwood Facility
Girdwood, Alaska

Regulatory authority:
18 AAC 75, Article 3, as amended through October 16, 2005, and 18 AAC 78, Articles 2 and 6, as amended through January 30, 2003.

Name and mailing address of current contact and/or responsible person:
ADOT&PF
Al Gilbert

5848 East Tudor Road
Anchorage, Alaska 99507

Background

The ADOT&PF Girdwood facility is located approximately 0.25 mile north of Mile 90.5 Seward Highway in Girdwood, Alaska. The site was reportedly used by the Alaska Railroad Corporation prior to ADOT&PF occupancy and is presently used for the storage, operation and maintenance of equipment and supplies for maintaining state roadways.

According to a 1998 underground storage tank (UST) Closure Report, one 2,000-gallon gasoline UST and one 2,000-gallon diesel UST were removed in July 1997. Approximately 43 cubic yards (CY) of petroleum contaminated soil was generated during the UST removals and stockpiled on site. Soil samples from the stockpile contained up to 8,900 parts per million (ppm) diesel range organics (DRO) and 2,200 ppm gasoline range organics (GRO). Soil samples from the excavation contained up to 15,000 ppm DRO and 2,600 ppm GRO. Benzene concentrations in these samples were less than the laboratory reporting limits, which were as high as 1.6 ppm. It was also reported that a 2,000-gallon heating oil UST had been removed from the site in 1999.

In August and September 2000, additional work was conducted that included the excavation of eight test pits in the vicinity of the former USTs. Approximately 750 CY of impacted soil (including the soil stored from the UST removal in 1997) was transported off-site for treatment. Soil samples from the test pits indicated elevated petroleum hydrocarbon concentrations remained on site. It was reported that a dispenser hose leak stained the soil near the above ground storage tank (AST) that is currently used to store diesel fuel. Due to the AST being in use and logistical problems of moving the AST to be able to access the stained soil, the area under the AST has not been adequately assessed or cleaned up.

A groundwater sample from the drinking water supply well in 2000 did not detect DRO, GRO, residual range organics (RRO), or volatile organic compounds (VOCs). The water well is located approximately 50 feet from the former USTs and serves the shop building for equipment maintenance and washing. Drinking water is provided via bottled water. The groundwater was monitored to determine groundwater quality conditions and if contamination was migrating. The results indicated petroleum hydrocarbons above applicable cleanup levels but the facility's water supply well has shown no contamination.

In May, 2006 additional site characterization activities were conducted. This included soil borings and monitor well installation to sample soil and groundwater. The depth to groundwater ranged from 2.8 to 5.7 feet below ground surface (bgs) with an assumed flow direction towards the south.

Benzene was detected in two of the four soil borings above the applicable cleanup level of 0.02 ppm. A benzene concentration of 0.0203 ppm was detected in a soil sample collected from the boring at the former UST locations and 0.0338 ppm benzene was detected in a soil sample collected for a boring upgradient of the former UST locations.

The groundwater samples detected GRO at 1.32 ppm and benzene at 0.00500 ppm which were at (or slightly above) the applicable cleanup levels. The remaining results were either non-detectable or were at levels less than the cleanup criteria.

Contaminants of Concern

The contaminants of concern for both soil and groundwater are present in gasoline and diesel fuel and include:

- Benzene, toluene, ethylbenzene and xylenes (BTEX)
- Diesel range organics (DRO)
- Gasoline range organics (GRO)
- Residual range organics (RRO)

Pathway Evaluation

The human exposure pathways evaluated include: inhalation, ingestion of soil and water and dermal contact. The migration pathways considered include: migration to groundwater and/or surface water, and migration to indoor air. The impacts to ecological receptors were evaluated as potentially sensitive habitats rather than individual species.

The conceptual site model shows the exposure pathways to humans are currently limited to the contaminated soil primarily sub-surface. There is the potential, primarily to site workers, for exposure to contaminated soil through dermal contact, ingestion or inhalation of indoor and outdoor air vapors. Inhalation of fugitive dust could expose on-site and off-site persons to contaminants from the ADOT&PF Girdwood Facility. However, the concentrations do not exceed the inhalation and ingestion levels considered acceptable for human health exposure.

The migration pathway to groundwater is complete and has impacted water quality in the perched shallow aquifer. However, the groundwater contaminant plume is stable or diminishing and natural attenuation over time will reduce residual contaminant concentrations. The on-site water well is completed in a deeper confined aquifer and is not utilized as a drinking water source. Drinking water is provided via bottled water. There is no evidence of migration to surface water, natural attenuation over time and removal of contaminated soil under the AST will allow cleanup levels to be reached in the future. There are currently no buildings present in the area downgradient of the site with respect to groundwater flow.

Cleanup Levels

The soil cleanup levels established for this site are the 18 AAC 75.341 (Tables B1 and B2) levels for 'Migration to Groundwater' (under 40 inch zone). The groundwater cleanup levels for this site are the 18 AAC 75.345 Table C levels.

ADEC Decision

ADEC has determined that cleanup actions to date have reduced the contamination source(s) at the Girdwood facility. The contaminated soil that remains on site is not accessible to human receptors and the shallow groundwater is not used as a drinking water source.

There is residual soil and groundwater contamination remaining at this site but it does not pose an unacceptable risk to human health or the environment. Therefore, no further remedial action

is required at this time and this site is approved for conditional closure, subject to the following conditions:

1. The installation of groundwater wells at this facility is prohibited without prior review and approval by ADEC.
2. When (or if) the AST is moved and/or the impacted soil becomes accessible, ADEC shall be contacted for appropriate action. ADEC must approve any excavation, transport, remediation and/or disposal of soil from the site.
3. The groundwater monitoring program will continue (based on funding approval) until two consecutive monitoring events indicate no exceedances of the cleanup levels in 18 AAC 75.345, Table C.

In accordance with 18 AAC 75.380(d)(2), ADEC may require additional site assessment, monitoring, remediation, and/or other necessary actions at this facility should new information become available that indicates contamination at this site may pose a threat to human health or the environment.

This status of this site will be noted as "Conditional Closure" on the ADEC database. An institutional control will be established on the ADEC database to document residual soil and groundwater contamination remaining on site above the most stringent 18 AAC 75.341 soil cleanup levels and the 18 AAC 75.345 (Table C) groundwater cleanup levels. Site closure (without conditions) will be considered when soil and groundwater samples confirm that all soil and groundwater meet the established ADEC soil and groundwater cleanup levels for this site.

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.

Signature of Acknowledgement:
As a duly authorized representative of the ADOT&PF Facilities, I agree to the terms and conditions established in this decision document.

ADOT&PF Facilities
Authorized Signature: _____
Printed Name & Official Title: _____

If you have questions or concerns about this Conditional Closure decision, or any of the attached conditions, please contact me at (907) 262-5210, extension #233.

Sincerely,

Don Seagren
Environmental Program Specialist
Department of Environmental Conservation