

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

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

43335 K-Beach Road, Suite 11
Soldotna, AK 99669
PHONE: (907) 262-5210
FAX: (907) 262-2294
<http://www.state.ak.us/dec/>

File: 2540.26.002

December 13, 2006

Al Gilbert
State of Alaska
ADOT&PF Facilities
5848 East Tudor Road
Anchorage, Alaska 99507

FILE COPY

Re: ADOT&PF Dillingham Maintenance Facility, ADEC Spill #20000250006701
UST Facility ID# 1742
Conditional Closure Determination

Dear Mr. Gilbert:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), reviewed the administrative file for the gasoline and diesel fuel release, assessment, and cleanup actions conducted at the ADOT&PF Dillingham Maintenance Facility. Based on this review, ADEC has determined that hazardous substance contamination to the soil and groundwater remains at the facility but it does not pose an unacceptable risk to human health or the environment. Please note that this determination is subject to site specific conditions and must be complied with in order to validate this conditional closure decision.

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

Introduction

Site name and location:

ADOT&PF Dillingham Maintenance Facility
Dillingham, Alaska

Regulatory authority under which the site is being cleaned up:

This project was reviewed under the applicable regulatory authority in 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:

Al Gilbert

State Of Alaska
ADOT&PF Facilities
5848 East Tudor Road
Anchorage, Alaska 99507

Land Owner:
State of Alaska

Background

In September 1999, three underground storage tanks (USTs) were removed from the Alaska Department of Transportation and Public Facilities (ADOT&PF) Vehicle Maintenance Facility in Dillingham, Alaska.

The presence of petroleum hydrocarbon contamination in soil was detected by field screening results and excavation confirmation sample analytical results included in the UST closure report. Soil excavation sample results indicated diesel range organics (DRO) concentrations significantly above Alaska Department of Environmental Conservation (ADEC) Method 2 cleanup levels in remaining soil at all three tank locations. No additional excavation to remove contaminated soil below the tanks had been documented, nor was there documentation of clean soil at the excavation limits from soil field screening or laboratory analytical results to suggest the remaining contaminated soil had been removed from the site. A stockpile containing approximately 40 cubic yards of petroleum impacted soil was generated during the UST removal.

In May, 2006, additional site assessment and groundwater monitoring was conducted to determine the extent of contamination remaining at the site, and to evaluate the risk to human health and the environment.

A limited area of DRO soil contamination (1540 mg/kg) was detected in the area of the former UST location. This contamination was located at a depth of 19 feet below ground surface (bgs).

DRO (13.4 mg/l) and benzene (0.0197 mg/l) contamination above ADEC groundwater cleanup levels exists in shallow groundwater directly under the former UST location. This is the same location as the limited soil contamination was found. Downgradient wells indicate that concentrations attenuate to below cleanup levels before reaching the property boundary. There is no current indication that the ground water contaminant plume extends to a significant vertical depth and this contaminant source is not considered a threat to nearby City Well #4. Water in the onsite maintenance shop well was tested and no contamination was detected. This well is no longer used as a source of potable water. The maintenance facility receives potable water from the adjacent public safety facility water supply well.

Subject to site specific conditions identified in this ADEC decision, the remaining soil and groundwater contamination isn't expected to pose an unacceptable risk to human health or ecological receptors.

The 40 cubic yards of soil remaining in the on-site stockpile that was generated during the 1999 UST system removal still had DRO concentrations (644 mg/kg – 2240 mg/kg) well above ADEC Method 2 soil cleanup levels for 'migration to groundwater'. The stockpile is currently located within 50 feet of a City water well (Well #4) however this well isn't currently connected to any potable water supply system.

Contaminants of Concern

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

- Benzene, toluene, ethylbenzene and xylenes (BTEX)
- Diesel range organics (DRO)

Pathway Evaluation

The human exposure pathways evaluated include: inhalation, ingestion of soil and water, and dermal contact with soil. 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 due to the remaining contaminated soil being sub-surface and limited in extent. There is the potential, primarily to site workers, for exposure to contaminated soil through dermal contact, ingestion, or inhalation should excavation occur in the affected area. The groundwater ingestion pathway is also potentially complete; however the contaminated groundwater isn't currently used for potable water supplies. As an effort to ensure contaminated groundwater isn't ingested in the future, water well installations on this property will be prohibited without the prior review and approval of ADEC.

The migration to groundwater pathway is complete, as DRO and benzene contamination are present in the perched, shallow aquifer. This perched aquifer is not currently used for drinking water supplies, and is not envisioned to be used for future drinking water supplies. The groundwater contaminant plume is believed to be stable or diminishing and natural attenuation over time will reduce residual contaminant concentrations. The onsite water well is completed in a deeper confined aquifer. This well tested free of petroleum contamination, and is not used as a drinking water source because of arsenic levels which exceed drinking water standards. Drinking water is supplied from the adjacent public safety building water supply well. A city water supply well, Well #4, is located approximately 50 feet south of the site. Well #4 is used seasonally during the winter, solely for the purpose of supplying water for making ice on the adjacent ice rink. Well #4 isn't currently connected to any drinking water supply piping, and is currently not used for any other purpose. A review of Alaska Department of Natural Resources (ADNR) well logs indicated that this well is screened from approximately 99 feet to 109 feet bgs. Water production at Well #4 is likely primarily from a sand and gravel unit present from 101 feet to 119 feet bgs. This unit is separated from surface sediments by a clay unit between 57 feet and 96 feet bgs.

The site does not contain surface water or sensitive habitat areas; therefore the surface water exposure pathway is not complete. The closest surface water body is an adjacent offsite pond located approximately 170 feet west of the Vehicle Maintenance Facility.

The migration to indoor air pathway is considered incomplete because the residual contamination is relatively deep. In addition, the vapor pressure of DRO is relatively low and unlikely to generate problematic vapor concentrations.

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 additional remediation of the 1999 UST release is not necessary at this time. The remaining contaminated soil is not accessible to human receptors based on its location and present land use. Also, the shallow groundwater at the site is not currently used as a drinking water source based on the contamination and/or naturally occurring conditions. The groundwater contaminant plume is not migrating and the facility acquires drinking water from the adjacent public safety building supply well. The on-site well is screened in a deeper confined aquifer, and shows no signs of petroleum contamination. There was no evidence of any impacts to surface water (or ecological receptors) from this incident.

There is residual soil and groundwater contamination remaining at this site. However, with appropriate controls and restrictions, it will 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 is prohibited. Any exception to this prohibition must be reviewed and approved by ADEC.
2. The residual soil contamination is located at 19 feet bgs and is currently inaccessible. If construction or excavation is conducted in this area, and contaminated soil encountered, ADEC shall be contacted for appropriate action. ADEC must approve any excavation, transport, remediation, or disposal of soil from the site.
3. ADEC will establish a semi-annual long-term ground water monitoring program, based on available funding. The first sampling event will occur during 2008. The monitoring program will continue until two consecutive monitoring events, spaced one year apart, demonstrate that all contaminants of concern in all monitor wells are below the groundwater cleanup levels in 18 AAC 75.345, Table C.
4. If the existing groundwater well at the facility is no longer used, it should be properly decommissioned in accordance with ADEC standards.

In accordance with 18 AAC 78.276(f)(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.

ADOT&PF should landspread the contaminated soil stockpile in an unused portion of the fenced facility to facilitate natural attenuation processes to complete the remediation of these soils. The soils should be spread in a location located more than 200 feet from the City's Well #4.

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

