

# STATE OF ALASKA

SARAH PALIN, GOVERNOR

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

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File: 2332.38.026

August 31, 2007

Alaska Department of Corrections, Facilities  
ATTN: Charles Finch, Facilities Manager  
550 W. 7th Ave, Ste 601  
Anchorage, AK 99501

Re: Spring Creek Correctional Center, Seward, Alaska  
Spring Creek Heating Oil USTs, ADEC Spill #2001230102801  
Conditional Closure Determination

Dear Mr. Finch:

In 1999, diesel fuel contamination was detected at the two 30,000-gallon diesel underground storage tanks (USTs) during tank upgrade work performed to bring the tank systems into compliance with existing regulatory requirements. Petroleum contaminated soil was detected, and left remaining, near the fill pipes of both tanks at that time. In 2005 and 2006, the Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), hired a contractor to install two groundwater monitoring wells to assess soil and groundwater quality at the location of the two USTs. In 2007, ADEC's contractor oversaw the proper decommissioning of the groundwater test wells associated with these USTs. Based upon the completion of this work and our review of ADEC's administrative file for this site, we have determined that hazardous substance contamination to the soil remains at these USTs, but that it does not pose an unacceptable risk to human health or the environment. Please note that this determination is subject to site specific conditions which 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:

Spring Creek Heating Oil USTs at the Spring Creek Correctional Center in Seward, Alaska

#### Legal Description:

SW0840012, Section 18, T1S, R1E, Spring Creek Correctional Facility  
Kenai Peninsula Borough Parcel Number 14532008, consisting of 262 acres.

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 facility manager:

Alaska Department of Corrections  
Charles Finch, Facilities Manager  
550 W. 7th Ave, Ste 601  
Anchorage, AK 99501

Land Owner:

City of Seward  
PO Box 167  
Seward, AK 99664-0167

Background

The Spring Creek Correctional Center (SCCC) is a maximum security prison constructed on 262 acres of land located east of Seward, Alaska across Resurrection Bay. Access to the facility is via Nash Road which connects with the Seward Highway near the northern edge of Seward. The facility is located between the Chugach Mountains (to the east) and Resurrection Bay (to the west). Fourth of July Creek is located south of the facility and flows in a southwesterly direction from the Chugach Mountains to Resurrection Bay.

In the time period from November, 1999 through January 2000, two 30,000-gallon diesel USTs were upgraded with materials and procedures that complied with Underwriters Laboratories, Inc., requirements. The USTs reportedly have only contained diesel fuel for heating and emergency power generation. They are located near the maintenance building, outside the secure perimeter of the SCCC facility, at the eastern edge of the facility. Inmates do not have access to this area of the facility.

During the upgrade work a total of approximately 2.8 cubic yards of diesel contaminated soil were removed by hand shovels, in order to reconfigure the fill ports on each tank to meet the current regulatory requirements. Upon completion of soil excavation, soil samples were collected and analyzed from the fill tube location on each tank. Diesel range organics (DRO) were detected at concentrations of 3700 and 6000 mg/kg. No further efforts have been taken to remove additional contaminated soil.

In 2005 and 2006, two monitoring wells were installed downgradient of these USTs in the effort to determine if soil and groundwater had been impacted from the UST associated diesel contamination. Groundwater was only encountered in one of the two monitoring wells, at a depth of approximately 20 feet below ground surface. No soil contamination was detected. DRO was detected in the water sampled from the one monitoring well, but the concentrations did

not exceed ADEC groundwater cleanup levels. Both monitoring wells were decommissioned in May, 2007.

Petroleum contaminated soil remains in place at each UST because the presence of the tanks and associated piping prevented cleanup by excavation. Groundwater at the site did not appear to exceed ADEC groundwater cleanup levels in 2006. The magnitude and extent of the diesel contamination associated with the two USTs appears to be limited.

Two water supply wells that provide water to the SCCC are located approximately 1000 feet up and cross-gradient from this release site, and are not at risk from this site.

#### **Contaminants of Concern**

The potential contaminants of concern at this site are constituents of diesel fuel and include:

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

DRO has been the only contaminant of concern detected in soil at concentrations exceeding applicable ADEC cleanup levels. The highest concentration of DRO detected in soil remaining near the top of the tanks 1999 was 6,000 mg/kg.

#### **Pathway Evaluation**

The human exposure pathways evaluated include: indoor and outdoor inhalation of vapors, 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 residual concentration of DRO in soil did not exceed ADEC ingestion or inhalation soil cleanup levels, so the soil should not pose unacceptable outdoor air or soil ingestion/dermal contact exposure risk.

The residual concentrations of DRO in soil did exceed ADEC 'migration to groundwater' cleanup levels at each UST in 1999. The quantity of remaining impacted soil is uncertain, but thought to be fairly limited because soil and groundwater contamination were not detected during the installation and sampling of the two monitoring wells in 2005 and 2006.

The migration to groundwater pathway is complete because petroleum was detected in groundwater, however the groundwater concentration did not exceed ADEC groundwater cleanup levels. Groundwater ingestion should not pose an unacceptable exposure risk, provided higher DRO concentrations are not present at the site. In addition, potable water to the facility is supplied from two water supply wells located approximately 1000 feet up and cross-gradient from this site, and the groundwater at this site is not used for drinking water.

The surface water migration and exposure pathway are considered incomplete, since no surface water contamination has been noted or identified. Ecological receptors are present on the property, but they have not been impacted.

Lastly, the DRO contamination remaining in soil at the site isn't expected to pose unacceptable risks to indoor air quality because of the limited volatility of DRO constituents, and the low concentration of benzene present in diesel fuel.

### **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' (over 40 inch zone).

### **UST System Status**

As of March 1, 2006, these dual-use USTs (heating and emergency power generation) are considered to be regulated underground storage tank systems as defined at AS 46.03.450(12) and (13), and must comply with all applicable requirements of 18 AAC 78 (Underground Storage Tanks Regulations). At the time of permanent closure or any change-in-service, site assessment and characterization must be performed in accordance with 18 AAC 78.90 (Site characterization and assessment). Should petroleum contamination be detected, additional release investigation and corrective action would then be required.

### **ADEC Decision**

ADEC has determined that additional remediation of this release is not necessary at this time. The remaining contaminated soil at the USTs met the ADEC soil cleanup levels for ingestion and outdoor inhalation, but did exceed the soil cleanup levels for 'migration to groundwater' when sampled in 1999.

Residual soil contamination remains near the USTs; however, with appropriate controls and restrictions, it should 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. Should future excavation work be planned at this release site, or should site work expose residual soil contamination, the Alaska Department of Corrections must contact ADEC and additional site assessment and/or remedial activities may be required and undertaken at that time.
2. At the time of permanent closure or any change-in-service of these UST systems, additional release investigation shall be performed in order to determine the horizontal and vertical extent of petroleum contamination associated with these USTs. Additional cleanup work may be required at that time, depending on the magnitude and extent of soil and/or groundwater contamination detected.

Failure to comply with these conditions could invalidate this decision.

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.

This status of this site will be noted as "Conditional Closure" on the ADEC database. An

August 31, 2007

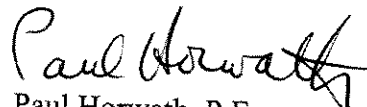
institutional control will be established on the ADEC database to document residual soil contamination remaining on site above the 18 AAC 75.341 soil 'migration to groundwater' cleanup level. Site closure (without conditions) will be considered when soil samples confirm that soil meets the established ADEC soil cleanup levels for this site.

**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 or concerns about this decision, or any of the attached conditions, please contact me at (907) 262-5210, extension #250.

Sincerely,

  
Paul Horwath, P.E.  
Environmental Engineer

C: Spring Creek Correctional Center  
Attn: Craig Turnbull, Superintendent  
P.O. Box 2109  
Seward, AK 99644-2109

Spring Creek Correctional Center  
Attn: Jolund Luther, Admin Manager  
P.O. Box 2109  
Seward, AK 99664-2109

Phillip Oates, City Manager  
City of Seward  
Administration  
410 Adams St.  
Seward, AK 99664

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