# STATE OF ALASKA

# **DEPT. OF ENVIRONMENTAL CONSERVATION**

# DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

Frank Murkowski, Governor

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File: 250.38.001

May 30, 2006

James Battis AFRL/VSBXI 29 Randolph Road Hanscom AFB, MA 01731-3010

High Frequency Active Auroral Research Site - Gakona, AK

ADEC Spill # 94330134102 ADEC Site Closure Decision

Dear Mr. Battis:

Re:

The Alaska Department of Environmental Conservation, Contaminated Sites Program, (ADEC) has reviewed its file for the above referenced facility including the recent information provided on your behalf by Paul J. Valihura, Ph.D. (formerly of Metcalf & Eddy, Inc./Holmes & Narver, Inc., the consulting firm providing assistance to the United States Air Force regarding this spill). This information was reviewed by ADEC for compliance with Alaska statutes and regulations governing hazardous substance contamination. Based on the information provided to date, ADEC has determined no further cleanup actions are required at this site and it will be considered closed.

The following information was considered in determining the environmental status of this property.

#### Background

On December 7, 1994, a release of diesel fuel was discovered at the site after the removal of two diesel generators from the site. When the diesel generators were removed, stained soils were noted on the gravel floor beneath one of the generators, and beneath a "t" connection for the fuel line that serviced the generators. The quantity of impacted soil was estimated at 3 cubic yards based on shallow excavation assessment activities.

A work plan for the excavation and remediation of the contaminated soils was submitted in 1995, and was approved by ADEC on July 19, 1996. The response actions identified in the work plan included the excavation of approximately 3 cubic yards of contaminated soil, and the placement of these soils into a lined bioremediation cell that was approximately 12 feet by 15 feet. The soils were to be retained in the bioremediation cell until field screening depicted that the soils met background concentrations. According to recently received correspondence from Paul J. Valihura, Ph.D., the excavation of contaminated soils did occur in the fall of 1996 and less than 3

cubic yards of contaminated soil was excavated at the spill site. Excavation activities were guided by field screening. The total depth of contaminant migration was less than 2.5 feet. The contaminated soils were placed into a bioremediation cell where the soils were periodically aerated for a period of approximately 4 years. Once field screening depicted that the soil contaminant concentrations had returned to background levels, the soils were landspread across the gravel pad over an area of several hundred square feet.

No final cleanup report was filed with the department to document the cleanup activities that were undertaken, and that cleanup levels were met. In addition, no analytical laboratory results are available to demonstrate that the excavation met regulatory cleanup levels before they were landspread on the gravel pad at this facility. However, the information presented (through written correspondence, verbal correspondence, and via pictures) demonstrates that only a minor amount of diesel fuel was released at this site, and that the response actions were adequate in addressing the risk posed by the contamination.

Groundwater was not encountered during excavation activities, so no groundwater contamination occurred.

#### **Chemicals of Concern**

The contaminants of concern identified at the site are: Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX) Diesel range organics (DRO)

## Contaminant Exposure Pathways

The potential human exposure pathways included dermal contact with, or ingestion of, contaminated soil, and inhalation of vapors in ambient air. Those potential exposure pathways were removed when the contaminated soil was excavated and bioremediated.

### **Contaminant Migration Pathways**

The migration to groundwater pathway was evaluated and found to be incomplete. Due to the limited extent of contaminant migration into the subsurface soil, groundwater was not contaminated. The migration to indoor air pathway was also found to be incomplete due to the distance from the spill site to nearby buildings and the low volatility of diesel fuel.

#### Soil Cleanup Levels

The soil cleanup levels established for this site are the 18 AAC 75.341, Tables B1 and B2 migration to groundwater pathway (Under 40 inch zone). These cleanup levels are the most stringent soil cleanup levels and allow unrestricted closure once the levels are achieved.

### **Groundwater Cleanup Levels**

The groundwater cleanup levels established for this site are the 18 AAC 75.345, Table C. These cleanup levels allow unrestricted closure if the levels are achieved.

#### ADEC Decision

Based on the information provided to date and the cleanup actions employed at this site, ADEC has determined no further assessment or cleanup action is required at this time. This site should G:\SPAR\SPAR-CS\38 Case Files (Contaminated Sites)\250 Southeastern Tok\250.38.001 High Frequency Active Auroral Research Program\HAARP Closure Letter\_5-26-06.doc

no longer pose an unacceptable risk to human health or the environment. The Department considers this cleanup complete, and this site will be closed in the Contaminated Site Program's database.

It should be noted that this site closure decision is subject to 18 AAC 75.380(d)(2) whereby additional assessment or cleanup actions may be required if any future information indicates a possible risk to human health or the environment.

While we are closing out this project site without laboratory documentation for soil contaminant concentrations (confirmation soil sampling, laboratory analysis, and analytical reports), please note that this is an exception that is being made based on the limited quantity of fuel spilled and based on the cleanup response information provided by Paul J. Valihura, Ph.D. Better coordination with the State's project manager should be maintained on any future project sites in order to ensure that your cleanup response actions are approved and will satisfy standard ADEC requirements.

# 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 there are any questions regarding this site closure decision, you may contact me at 262-5210, extension #245.

Sincerely,

Donald G. Fritz

**Environmental Program Specialist** 

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CC: Jennifer Roberts- ADEC Federal Facilities Environmental Restoration Program Manager Paul Valihura, DTS-33 Volpe National Transportation Systems Center USDOT 55 Broadway St Cambridge, MA 02142-1093