STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

SEAN PARNELL, GOVERNOR
610 University Avenue
Fairbanks, AK 99709-3643
PHONE: (907) 451-2702
FAX: (907) 451-2155
www.dec.state.ak.us

Files: 890.38.014

November 4, 2010

Scott Berglund
Federal Aviation Administration
Environmental Section
AAL-471, FAA
222 W. 7th Ave, Box 14
Anchorage, AK 99513-7587

Re: Decision Document, *UST 46-C-102A, Bettles Station, Alaska*

Dear Mr. Berglund:

The Alaska Department of Environmental Conservation (DEC), Contaminated Sites Program has completed a review of the environmental records associated with the Federal Aviation Administration (FAA) former UST 46-C-102A located at Building 603, Bettles Field. Based on the information provided to date, DEC has determined that the contaminant concentrations remaining on site due to tank 46-C-102A do not pose an unacceptable risk to human health or the environment and a Cleanup Complete determination will be granted.

This decision is based on the administrative record for FAA Bettles UST 46-C-102A, which is located in the offices of the Alaska Department of Environmental Conservation in Fairbanks, 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 Cleanup Complete determination.

Introduction

Site Name and Location:
FAA Bettles Building 603 UST 46-C-102A
Bettles, Alaska 99726

Name and Mailing Address of Contact Party:
Scott Berglund
Federal Aviation Administration
Environmental Section
AAL-471, FAA
222 W. 7th Ave, Box 14
Anchorage, AK 99513-7587

Database Record Key and File Number:
ADEC Reckey No. 1992310023901
File: # 890.38.014
Hazard ID: 24337

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 78

Background

This site has been impacted by leaks and spills from nearby underground storage tanks (USTs). The Bettles FAA site includes historic contamination from UST leaks and spills. UST 46-C-2, a 5,200-gallon UST, was removed in 1991 and replaced by 46-C-102A, a 1,000 gallon UST. This 1,000 gallon tank was removed in 1996. Groundwater in the area of former UST 46-C-102A has been impacted by leaks and spills associated with several source areas; the groundwater monitoring and remediation is being tracked as the site FAA Bettles UST 46-C-2 Building 603 Powerhouse under DEC file # 890.38.014 and Hazard ID # 1374. Former UST 46-C-102A is not considered to be a release point for this contamination.

Cleanup Actions

Soil and groundwater samples collected at this site have been tested for: diesel range organics (DRO); Gasoline Range Organics (GRO); and benzene, toluene, ethylbenzene, and xylenes (BTEX). In 1991, former UST 46-C-2 was excavated and contaminated soil was placed back into the excavation for in-situ remediation. Groundwater monitoring and remedial activities have continued at this site

Former UST 46-C-102A was a 1,000 gallon UST installed in 1991. The location of this UST was approximately 50 feet east of former UST 46-C-2. The groundwater in this location had been contaminated from subsurface releases from UST 46-C-2 and a nearby bulk fuel tank farm; groundwater in this area is being monitored as a separate site.

UST 46-C-102A was removed in 1996. Four confirmatory soil samples collected from the limits of the excavation and two samples of the approximately 10 cubic yards of excavated soil indicated that the soil met the most stringent DEC cleanup levels. The highest concentration analytical sample result detected 6.38 milligrams per kilogram (mg/kg) DRO at the base of the excavation, well below the applicable cleanup level. No other contaminants were detected. The excavated soil was used to backfill the tank excavation.

Characterization and cleanup activities associated with FAA Bettles UST 46-C-2 Building 603 Powerhouse indicate that groundwater at this site fluctuates seasonally between approximately 22 feet and 33 feet below ground surface.

Contaminants of Concern

- Diesel Range Organics
- Benzene, Toluene, Ethylbenzene, and Xylenes

Cleanup Levels

The soil cleanup levels for this site are established in 18 AAC 75.341 Tables B1 and B2, Under 40 inch Zone, Migration to Groundwater.

Contaminant	Site Cleanup Level (mg/kg)
Diesel Range Organics	250
Benzene	0.025
Toluene	6.5
Ethylbenzene	6.9
Xylenes	63

Pathway Evaluation

The possibility of exposure to contamination has been evaluated by identifying potential exposure pathways and determining whether a human health risk exists due to the pathway. The exposure pathways that were evaluated include the following: ingestion of soil and groundwater, dermal contact with soil, consumption of contaminated groundwater, and indoor and outdoor inhalation of vapors. "De-minimis exposure" means that in DEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in DEC's judgment contamination has no potential to contact receptors.

Soil ingestion risk identifies the risk of exposure to contaminants resulting from ingestion of contaminated material, including swallowing of contaminated dust particles stirred into the air by wind. Remaining contamination at this site is below concentrations that would present a human health risk resulting from ingestion. Exposure by ingestion is considered a de-minimis pathway.

Dermal contact risk identifies the potential harm caused by contaminants in contact with skin. Based on the concentrations of contamination at the site, it is not likely that human health will be harmed by contamination. Exposure by dermal contact is considered a de-minimis pathway.

Groundwater in the area of former UST 46-C-102A has been impacted by leaks and spills from other USTs in the area. An analytical sample at the base of the excavation for UST 46-C-102A indicated that the highest concentration of contaminants was 6.38 mg/kg. This sample was collected at 7 feet below ground surface, with seasonal high groundwater at approximately 22 feet below ground surface. The low concentration of contaminants is unlikely to migrate to groundwater and therefore the exposure to contaminated groundwater pathway is considered incomplete for UST 46-C-102A.

Inhalation of vapors as a potential exposure pathway analyzes the risk that people will be impacted by contaminants in the gaseous form. Based on the concentration of contaminants remaining in the soil and knowledge of vapors in soils, the risk of vapor inhalation is not considered to present a risk to human health. The vapor inhalation pathway is considered incomplete.

The exposure pathway analysis above was supported by the most recent DEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways associated with former UST 46-C-102A to be incomplete or de-minimis.

ADEC Decision

The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, DEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment from former UST 46-C-102A, and this site will be designated as "Cleanup Complete" on the ADEC's database.

Although a Cleanup Complete determination has been granted for this site, it should be noted that this site is collocated with groundwater contamination; groundwater monitoring and remediation is being managed under FAA Bettles UST 46-C-2 Building 603 Powerhouse, DEC file # 890.38.014 and Hazard ID # 1374. DEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h).

This determination is in accordance with 18 AAC 78.276(f)(2) and does not preclude DEC 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.

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 DEC project manager, Kim DeRuyter, at (907) 451-2752.

Sincerely,

Fred Vreeman
Environmental Program Manager

James Ward
College Intern III

cc: Kim DeRuyter, DEC, via email