



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Environmental
Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova St
Anchorage, AK 99501
Main: 907-269-7503
Fax: 907-269-7687
www.dec.alaska.gov

File No: 2100.38.028.23

January 7, 2015

Ted Stevens Anchorage International Airport
Attn: Scott Lytle
State of Alaska DOT&PF
P.O. Box 196960
Anchorage, Alaska 99519

Subject: **Decision Document: AIA Tank #8 Heating Oil
Cleanup Complete Determination**

Dear Mr. Lytle;

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Ted Stevens Anchorage International Airport (AIA) Tank #8 Heating Oil site located near the C concourse at the Ted Stevens Anchorage International Airport in Anchorage, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and this site will be closed.

This decision is based on the administrative record for AIA Tank #8 Heating Oil site which is located in the offices of the ADEC in Anchorage, 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.

Site Name and Location:

AIA Tank #8 Heating Oil
East of the current C Concourse near
the tour bus parking
Ted Stevens Anchorage International Airport
Anchorage, Alaska 99502

Name and Mailing Address of Contact Party:

Ted Stevens Anchorage International Airport
Mr. Scott Lytle, Environmental Manager
P.O. Box 196960
Anchorage, Alaska 99519-6960

DEC Site Identifiers:

File No: 2100.38.028.23
Hazard ID: 1212
RecKey No: 1991210130801

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The site was the location of a former 1,000-gallon underground heating oil tank (HOT) that supplied fuel to a boiler room in the north end the former C Concourse. The tank was located approximately 10 feet northeast of the former C Concourse, prior to the concourse demolition in 1999. Today the site is located east of the current C Concourse in the paved dock area at the end of Tower Road near the tour bus parking (Attachment B). Samples collected from the extent of the excavation during the removal of the tank in 1991 showed that surface and subsurface soil contaminated with diesel range organics (DRO) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) remained in place at concentrations in excess of migration to groundwater cleanup levels.

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for total petroleum hydrocarbons (TPH), volatile petroleum hydrocarbons (VPH) diesel range organics (DRO), benzene, toluene, ethylbenzene, and xylenes (BTEX).

Based on results of the investigation and the applicable cleanup levels at the time of site discovery, the following Contaminants of Concern were identified in soil:

- DRO
- Benzene,
- Toluene,
- Ethylbenzene,
- Total Xylenes

Because of the change in cleanup levels based on a determination that groundwater cannot be used as drinking water (described in the section below) there are no remaining Contaminants of Concern at site closure.

Cleanup Levels

The applicable soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Under 40 Inch Zone, for Outdoor Inhalation.

In 2001, the ADEC approved of a groundwater use determination, in accordance with 18 AAC 75.350, in which the Anchorage International Airport (AIA) demonstrated that the shallow unconfined aquifer around the airport is not used as a source for public or private drinking water wells.

The groundwater use determination in 2001 established three “risk management zones” (RMZs) designated by AIA. The three AIA RMZ are the Air Side RMZ, Commercial RMZ, and Ecological RMZ. The Tank 8 site is within the Air Side RMZ. Groundwater is not used for drinking water in accordance with the 2001 determination, therefore the migration to groundwater soil cleanup levels and groundwater cleanup levels are no longer applicable to this site.

Characterization and Cleanup Activities

The tank and vent pipe were removed in 1991 along with 65 cubic yards (cy) of contaminated soil. The tank was connected to the boiler room at the north end of the former C Concourse building. The vent pipe was observed to be leaking where it entered the building and soil under the foundation of the former building was

saturated with heating oil. The excavation ended at the northeast corner of the building to preserve the building’s structural integrity. Field screening and sampling indicated that contamination remained at the south end of the excavation and under the building’s foundation. The sample with the highest levels of contaminants was collected 4.2 feet bgs under the foundation of the northwest corner of the boiler room and had a DRO concentration of 5,100 mg/Kg, 0.38 mg/Kg benzene, 0.46 mg/Kg toluene, 29 mg/Kg ethylbenzene, and 16 mg/Kg total xylenes. The final excavation was backfilled with clean fill.

In 1996, an assessment of the former C Concourse was performed in preparation for the demolition of the former building and construction of the new C Concourse. The assessment near the Tank 8 site included one soil boring advanced in the former C Concourse building. No petroleum hydrocarbons were detected.

In 1999, the original C Concourse building was demolished in preparation for the construction of the new C Concourse. There was a large excavation for the foundation of the new C Concourse which included screening and sampling west of the Tank 8 site. Soil was removed up to twelve feet bgs from the excavation. Screening and sampling indicated that to the west of the Tank 8 site, some DRO contamination remained in place at the deepest part of the excavation. The excavation was backfilled with clean fill and the new C concourse was constructed over the excavation.

Cumulative Risk Evaluation

Pursuant to 18 AAC 78.600(d), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative non-carcinogenic risk standard at a hazard index of one across all exposure pathways.

Cumulative risk was calculated assuming a residential land use and using the highest detected concentrations of contaminants from all of the groundwater and soil samples collected during the removal of the UST in 1991.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations do not pose a cumulative human health risk at this site

Exposure Pathway Evaluation

Following a review of the environmental records for the site, exposure to the remaining contaminants was evaluated using ADEC’s Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: Exposure Controlled or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Direct Contact with Surface Soil	De Minimis Exposure	Contaminants are not present above direct contact cleanup levels and the area is covered by concrete
Direct Contact with Sub-Surface Soil	De minimis Exposure	Contaminants are not present above direct contact cleanup levels and the area is covered by concrete

Inhalation-Outdoor Air	De-Minimis Exposure	The tank excavation was backfilled with clean fill. The former C Concourse building was removed and the whole area paved over. The area is now a parking area for tour buses with limited access. The main contaminant was DRO and volatile contaminants are not present above outdoor inhalation cleanup levels.
Inhalation-Indoor Air	De-Minimis Exposure	The new C Concourse is about 30 feet away and the old C Concourse has already been removed. Soil beneath the existing building was excavated up to 12 feet and replaced with clean backfill prior to construction and after the source of contamination had been removed (Tank 8). The C Concourse building is operated under positive pressure.
Groundwater Ingestion	Pathway Incomplete	Groundwater was determined to not be a current or future potential drinking water source through 18 AAC 75.350.
Surface Water Ingestion	Pathway Incomplete	There is no surface water within ¼ quarter mile.
Wild Foods Ingestion	Pathway Incomplete	The site is in a paved industrial area and no wild foods are collected.
Exposure to Ecological Receptors	Pathway Incomplete	There are no complete exposure pathways to ecological receptors at the site

Notes to Table 1: De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume or concentration of remaining contamination. “Pathway incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors. “Exposure controlled” means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department’s database, subject to the following Standard Conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. A “site” [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC 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 feel free to contact me at (907) 269-7551.

Sincerely,



Lisa Krebs-Barsis
Environmental Program Specialist

Attachment A: Site Figure

Attachment A- Site Figure

Location of Former Tank #8

