STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 1513.26.014

December 13, 2011

Via Electronic and Regular Mail
Ms. Amy Fuller Lyman
Alaska Airlines Inc
POB 68900 – SEAZE
Seattle, WA 98168-0900

Re: Decision Document: Alaska Airlines – Juneau Cargo Building
Waste Oil Underground Storage Tank
Corrective Action Complete Determination

Dear Ms. Fuller Lyman,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with Alaska Airlines – Juneau Cargo Building located at the Juneau International Airport. Based on the information provided to date, the DEC has determined that the petroleum contaminant concentrations remaining on site are the result of release(s) from other underground storage tanks at the site and are not related to the former waste oil underground storage tank managed under this record. The contamination from the waste oil UST piping release does not pose an unacceptable risk to human health or the environment. As a result, the record for the UST site will be closed.

This decision is based on the Alaska Airlines – Juneau Cargo Building Contaminated Site administrative record, which is located in the offices of the Alaska Department of Environmental Conservation (DEC) in Juneau, 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 Corrective Action Complete Determination.

Introduction

Site Name and Location:
Alaska Airlines – Juneau Cargo Building
Juneau International Airport
1915 Alex Holden Way
Juneau, Alaska 99801
Lots 5, 6, and 7 A&B, Block D Juneau Airport

Address of Contact Party:
Ms. Amy Fuller Lyman
Alaska Airlines Inc
POB 68900 – SEAZE
Seattle, WA 98168-0900

Database Record Key and File Number:
DEC Reckey: 1994110002701
File: 1513.26.014
Hazard ID: 24525
Source Area 77880

Regulatory authority for cleaned up:
Chapter 18 Alaska Administrative Code 78

UST Assessment Background
In September 1993, certified underground storage tank worker John Bertholl with Petroleum Services Inc. (PSI) removed a 500-gallon used-oil, underground storage tank from the Alaska Airlines Cargo Building at the Juneau International Airport. Concurrent with the UST removal, Smith Bayliss LeResche Inc (SBL) conducted an assessment of the site. Once petroleum contamination was identified in the excavated soil to remove the UST, SBL began a release investigation and identified a volume of fifteen cubic yards by field screening. DEC authorized PSI to transport the soil to Channel Sanitation where it was thermally remediated.

Release Investigation
In January 1994, SBL submitted the Release Investigation Report to the DEC which cited piping connectors as the source of the release. The tank had no sign of faulty material and was cleaned and then scrapped off-site in accordance with UST regulations. Two existing, active USTs used to store diesel and gasoline were situated on either side of the waste oil tank, prohibiting the complete removal of contaminated soil. Due to sloughing walls and the close proximity of other UST systems, the excavation was lined and then backfilled with clean material before the limits of subsurface contamination were found. Field screening and observation of the contaminated material indicated that soil contaminated with waste oil was fully removed and that the remaining contaminated soil was impacted by a release from one of the other UST systems. No groundwater was encountered in the excavation and therefore was not investigated for contamination.

Six confirmation soil samples and two duplicates were collected from the depths of the excavation approximately 8 feet below ground surface at 18 inches below the bottom of the former tank, and Sample A was collected in surface soil at the drain port. Soil samples at the site were analyzed for petroleum volatile organic compounds (VOCs) including benzene, ethylbenzene, toluene, total xylenes (BTEX) by EPA Method 8020 and other VOC compounds by EPA Method 8240 and 5030, gasoline (GRO) and diesel (DRO) petroleum range hydrocarbons using EPA Method 8015-G and 8015-D and three confirmation samples were analyzed for total metals arsenic, cadmium, chromium & lead using SW-846 Method 200.7.

Confirmation soil samples taken in the excavation detected GRO and DRO range hydrocarbons, benzene, toluene, ethylbenzene, toluene, acetone and methyl ethyl ketone (MEK also known as 2-butanone) volatile compounds, and the metals arsenic, cadmium, chromium and lead. The maximum concentrations detected in soil of acetone at 0.16 milligrams per kilogram (mg/kg) and MEK at 0.92 mg/kg were less than the Table B1 migration to groundwater soil cleanup levels. The maximum concentrations of arsenic at 263 mg/kg, cadmium at 11 mg/kg, chromium at 19.3 mg/kg and lead at 18 mg/kg detected in soil are consistent with naturally occurring metals background levels in the area. As a result metals, the acetone and the MEK are not contaminants of concern for this release investigation. Sample A collected in surface soil at the drain port was analyzed for GRO and DRO.

The result was a GRO concentration of 1,100 mg/kg and a DRO concentration of 4,000 mg/kg. Soil with this result was transported off-site and was thermally remediated.

Of the samples taken from soils which remained underground following the release investigation, contaminants at only one sampling location (Sample B) exceeded DEC soil cleanup levels for the site. That location is below the center of the former used oil UST at a depth of 8.5 feet below the surface. In Sample B and its duplicate, the maximum concentration in soil for GRO was 610 mg/kg, for benzene was 1.1 mg/kg, for ethylbenzene was 11 mg/kg, for toluene was 22 mg/kg and for total xylenes was 74 mg/kg. All other VOCs detected were below instrument detection in the 1994 laboratory analysis. The Analytical Resources Inc. laboratory report case narrative stated that the gasoline result in Sample B indicated the fuel was fresh and not weathered, as benzene was still present in an elevated concentration. The diesel chromatogram signature in the surface sample also appeared to be fresh and not weathered. These statements from the laboratory are further indication that any remaining subsurface contamination at the site has not resulted from a release from the waste oil UST, but rather from the adjacent gasoline and diesel USTs.

Contaminants of Concern
During the Release Investigation, soil samples at the site were analyzed for volatile organic hydrocarbon compounds including benzene, ethylbenzene, toluene, total xylenes and polycyclic aromatic hydrocarbons, gasoline and diesel petroleum hydrocarbon fractions; and total metals arsenic, cadmium, chromium and lead. Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Gasoline range organic (GRO) hydrocarbon fractions
- Benzene
- Toluene
- Ethylbenzene
- Total xylenes

Cleanup Levels
The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater.

Contaminant	Site Cleanup Level (mg/kg)
GRO	260.0
Benzene	0.025
Toluene	6.5
Ethylbenzene	6.9
Total Xylenes	63.0

Since groundwater was not encountered during the Site Assessment and Release Investigation for the waste oil UST, groundwater was not investigated. As a result groundwater cleanup levels for this site were not established for this UST release event.

Pathway Evaluation
Following investigation and cleanup at the site, exposure to any remaining contaminants was evaluated using DEC'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: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1 as Attachment A.

Cumulative Health Risk Calculation
Cumulative risk from petroleum contamination of environmental media at the site is addressed using the BTEX and PAH analyte concentration data. With data currently available, the DEC has determined that petroleum compounds remaining at the referenced site following cleanup are in concentrations that do not present a cumulative risk to human health.

DEC Decision
The cleanup actions to date have served to excavate and adequately remove contaminated soil related to the 500-gallon waste oil tank piping release found in 1993. Based on the information available, DEC has determined no further assessment or cleanup action is required for this UST release. There is no longer a risk to human health or the environment, and the record for this release event will be designated as closed on the Department's database.

The petroleum contaminant concentrations remaining on site are the result of releases from the regulated USTs used for gasoline and diesel which were closed by removal in 1998 after the closure and cleanup of the waste oil tank in 1994. Soil contamination from those UST release events at the Alaska Airline Juneau Cargo Facility is actively managed under hazard ID 22996. Although the cleanup is complete with regard to contamination from the former waste oil underground storage tank, the cleanup for release events from other USTs is ongoing under hazard ID 22996.

Although a Corrective Action Complete determination has been granted, DEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful. This determination is in accordance with 18 AAC 78.276(f) 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, Bruce Wanstall at (907) 465-5210.

Approved By,

Sally Schlichting
Environmental Manager

Recommended By

Bruce Wanstall
Environmental Program Specialist

Attachments: A: Table 1 – Exposure Pathway Evaluation

CC: Larry Brinkerhoff, UST Program Manager, via email

Attachment A: Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contaminated surface soil from the waste oil UST has been removed and transported to a local treatment facility and thermally treated so there is no surface soil contact. The site is paved with asphalt and is a secure area within the airport.
Sub-Surface Soil Contact	De-minimis exposure	Any remaining contamination in subsurface soil above MTG levels was released from another UST at the site and is managed under hazard ID 22996.
Inhalation – Outdoor Air	Exposure Controlled	Any remaining contamination in subsurface soil exceeding inhalation cleanup levels was released from another UST at the site managed under hazard ID 22996. The site is capped with asphalt.
Inhalation – Indoor Air (vapor intrusion)	De-minimis exposure	There are buildings at the site but all areas are secure and capped with asphalt. Any soil contamination exceeding inhalation cleanup levels is managed under hazard ID 22996.
Groundwater Ingestion	De-minimis exposure	Groundwater was not encountered in the 1994 waste oil UST release investigation. Any residual soil contamination exceeding MTG cleanup levels is managed under hazard ID 22996.
Surface Water Ingestion	Pathway Incomplete	There is a persistent surface water body located within ¼ mile of the site (Duck Creek). The water is tidally influenced and is not considered a potable drinking water source.
Wild Foods Ingestion	Pathway Incomplete	There are no wild foods harvest opportunities at the site within airport security. Any remaining soil contamination does not have the potential to bioaccumulate in plants or animals at the site.
Exposure to Ecological Receptors	Exposure Controlled	The soil contaminated by the waste oil UST has been transported to the local treatment facility and thermally treated. Any remaining contamination in subsurface soil above MTG levels was released from another UST at the site and is managed under hazard ID 22996.

Notes to Table 1: "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. "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.