

STATE OF ALASKA

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

SEAN PARNELL, GOVERNOR

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File: # 330.38. 011
Return Receipt Requested
Article No: 7008 1830 0002 6349 4289

March 26, 2010

Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507
PO Box 196660
Anchorage, AK 99519-6660

Re: Alyeska Pump Station 10 Turbine Fuel Offload
Cleanup Complete Determination-Institutional Controls

Dear Mr. Shifflet:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program, reviewed the environmental records associated with site Alyeska Pump Station (PS) 10 Turbine Fuel Offload. 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 no further remedial action will be required as long as the site is in compliance with established institutional controls (ICs).

This decision is based on the administrative record for Alyeska PS 10 Turbine Fuel Offload 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 ADEC determination.

Introduction

Site Name and Location

Alyeska PS 10 Turbine Fuel Offload
Mile 218 Richardson Hwy.
Near Paxson, AK

Name and Mailing Address of Contact Party:

Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507
PO Box 196660
Anchorage, AK 99519-6660

Database Record Key and CS file number:

Hazard ID # 1727
CS file # 330.38.011

Regulatory authority under which the site is being cleaned up:

18 AAC 75

Background

An initial site assessment was conducted on May 22, 1992 in the turbine fuel loading/offloading area in preparation for facility upgrades and reconstruction work. The purpose was to determine if the loading area needed to be relocated. In July 1992, this area was excavated, confirmation samples collected, and then upgraded by construction of a bermed, lined containment area.

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for petroleum hydrocarbons as diesel as well as benzene, toluene, ethylbenzene, and xylenes (BTEX). Groundwater samples were analyzed for BTEX. Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Diesel Range Organics (DRO)

Cleanup Levels

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

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
DRO	250

Site Characterization and Cleanup Actions

The initial site assessment effort included the advancement of 3 borings. Soil samples collected contained petroleum hydrocarbons, characterized as diesel-range, in concentrations up to 2,170 mg/kg. Groundwater samples were collected using bailers lowered into each boring. These samples contained mostly nondetectable BTEX concentrations and were all below current Table C levels.

Approximately 185 cubic yards of soil contaminated with petroleum hydrocarbons were excavated to the extent deemed practical due to utilities and the building in the area. The maximum depth of the excavation was 3.8 feet below ground surface. Thirty-six confirmation samples were collected with three samples above Method Two ingestion/inhalation levels. Three soil samples were also analyzed for BTEX which was found to be below the most conservative Method Two criteria. Immediately after the excavation and sampling effort, Alyeska placed an impermeable liner underneath the turbine handling area to limit migration from any possible future releases.

Pathway Evaluation

The exposure pathways for human health that were evaluated include the following: ingestion of soil and groundwater, indoor and outdoor inhalation of vapors, and direct contact with soil.

Exposure pathways are the conduits by which contamination may reach human or ecological receptors. Potential exposure pathways, presented in Table 1, were evaluated using ADEC's Exposure Tracking Model (ETM).

All potential exposure pathways are either de minimis, incomplete, or controlled. "De minimis exposure" means that in ADEC's judgment humans or wildlife will be minimally affected by the small volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact humans or wildlife. "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.

DRO concentrations remaining in the soil may be above cleanup levels for ingestion, direct contact and inhalation pathways, and migration to groundwater. However the exposure risk for these pathways is considered acceptable, primarily because of the current land use and extent of contamination remaining is considered de minimis. Furthermore, the contamination remaining has an impermeable liner above it, limiting access to it until potential future construction activity. The drinking water pathway is further protected by confining layers present above the depth of the screen of the PS 10 drinking water well.

The exposure pathway analysis above was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

Table 1 – Exposure Tracking Model Results

Pathway	Result	Explanation
Surface Soil Contact	De minimis exposure	Most of the contamination remaining is below the surface and possibly the building. Extent remaining at the surface is considered de minimis in volume. Very few, if any, receptors at this standby pump station.
Sub-Surface Soil Contact	De minimis exposure	Extent of contamination above direct contact levels is considered de minimis. Institutional controls will include that the contamination needs to be addressed when the soil becomes accessible, utilities and building no longer necessary. Very few, if any, receptors at this standby pump station.
Inhalation – Outdoor Air	De minimis exposure	Benzene levels below preliminary action levels and considered to be de minimis in extent. Very few, if any, receptors at this standby pump station.
Inhalation – Indoor Air (vapor intrusion)	De minimis exposure	DRO is the constituent of concern. Groundwater and soil BTEX data indicated these components were not present above cleanup levels and this pathway is considered de minimis. Furthermore, PS 10 is a standby pump station not expected to be used often. The building on site is not frequented other than for occasional inspection.
Groundwater Ingestion	De minimis exposure	Amount of remaining contaminated soil is considered to be de minimis in volume. Furthermore, the drinking water well at this standby pump station has a screen set at a depth of about 80-90 ft bgs with confining layers observed above that depth.
Surface Water Ingestion	De minimis exposure	No evidence of offsite migration - volume of contaminated soil is considered de minimis.
Wild Foods Ingestion	Pathway Incomplete	Site is a gravel pad in a fenced, secure area; contaminants of concern do not have the potential to bioaccumulate in plants or animals; and wild foods are not harvested in this area. Therefore this pathway is incomplete.

Exposure to Ecological Receptors	Pathway Incomplete	Site is a gravel pad in a fenced, secure area; no evidence of off-site migration; and wild foods are not harvested. Therefore this pathway is considered incomplete.
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ADEC Decision

There is contamination remaining above established cleanup levels at the Alyeska Pump Station 10 Turbine Fuel Offload but ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete- ICs determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore the Alyeska Pipeline Services Company shall report to ADEC every five years to document land use, or report as soon as Alyeska Pipeline Services Company becomes aware of any change in land ownership and/or use, if earlier. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov.**
2. Any proposal to transport soil or groundwater off site requires ADEC approval in accordance with 18 AAC 75.325 (i). 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. (See attached site figure.)
3. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
4. Soil contamination is located in the area of the Turbine Fuel Offload (see attachment B). When the soil in this area becomes accessible, such as during pipeline decommissioning, the soil must be evaluated and contamination addressed in accordance with an ADEC approved work plan.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. When the site meets the requirements for a Cleanup Complete determination, then the Institutional Controls will be terminated.

This determination is in accordance with 18 AAC 75.380(d) 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.

Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please contact the ADEC project manager, Keather McLoone at (907) 269-7526.

Approved By,



Linda Nuechterlein
Environmental Manager

Recommended By,



Keather McLoone
Environmental Specialist

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Attachment B: Site Figure.

Cc: Scott Rose, SLR
Jerry Brossia, JPO
Gary Reimer, Anchorage District Manager, BLM

Attachment A: Cleanup Complete-ICs Agreement and Signature Page*

Alyeska Pipeline Service Company agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this Closure Decision Document for *Alyeska Pump Station 10 Turbine Fuel Offload* dated **March 26, 2010**. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

Signature of Authorized Representative, Title
Jan Shifflet/ Alyeska Pipeline Service Company

Printed Name of Authorized Representative, Title
Jan Shifflet/ Alyeska Pipeline Service Company

For Internal Use Only

ADEC File No.: 330.38.011

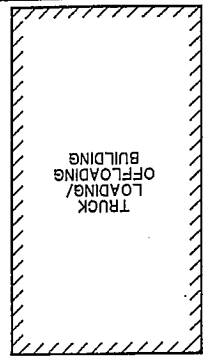
Hazard ID: 1727

ADEC Project Manager: Keather McLoone

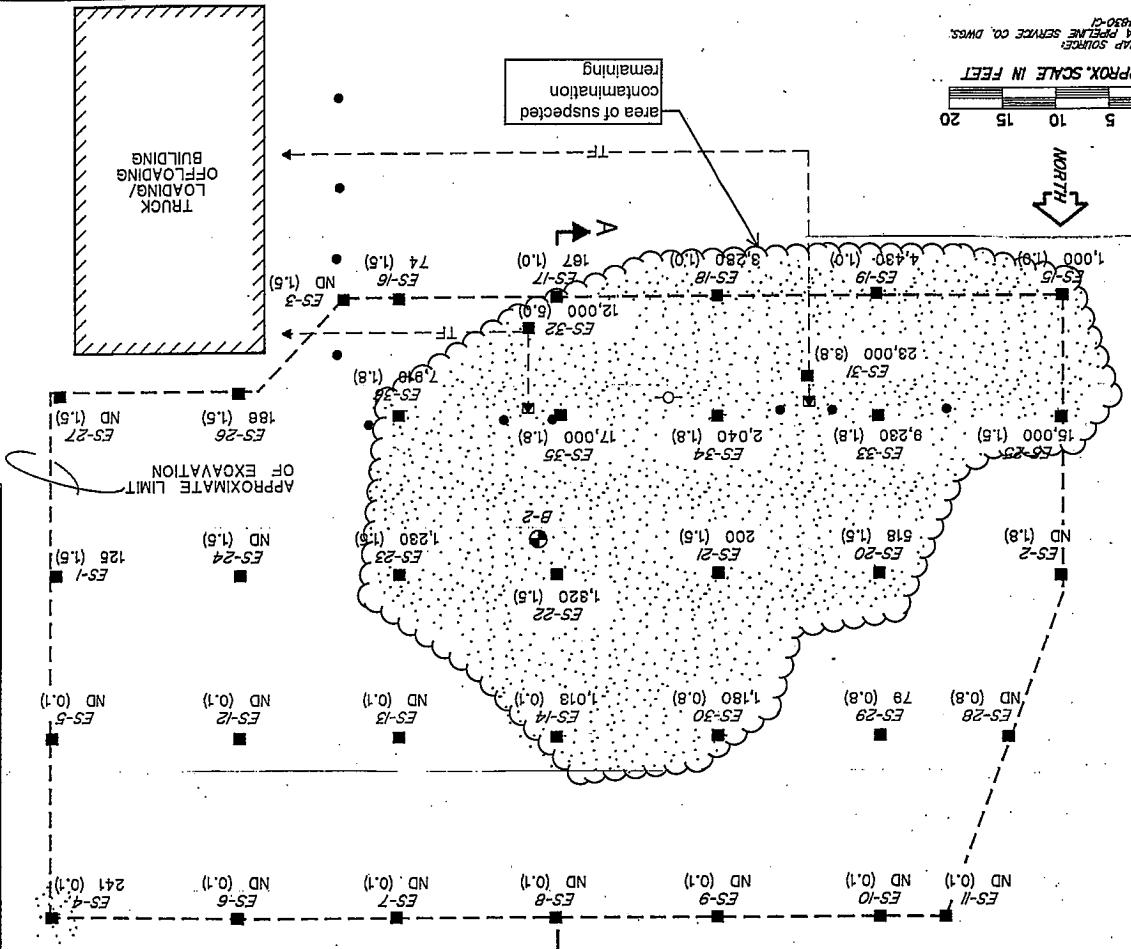
***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan and Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager so that the PM can update the CS database.

BASE MAP SOURCE:
ALTRON SPECIALTY SERVICE CO. DWGS.
D-40-44830-2
APPROX. SCALE IN FEET
0 5 10 15 20



area of suspected contamination remaining



EXPLANATION	SYMBOL
SOIL SAMPLE LOCATION AND LABORATORY ANALYTICAL RESULTS (ppm) USING DRIFT PHO METHOD (SAMPLE DEPTH IN FEET BGS)	■ ES-4 241 (0.1)
EXPLORATORY BORING (AN/E, 6/22/82)	○ B-2
TURBINE FUEL LINE	- TF -
TURBINE FUEL LOADING ARM (ON CONCRETE)	■
LIGHT POLE	○
GUARD POST	○
CROSS-SECTION (SEE FIGURE 6)	↔ A ↔
ESTIMATED LATERAL EXTENT OF CONTAMINATION (>200ppm DIESEL AT DESIGN DEPTH OF LINER APPROX. 16 FT. BGS, AT FUEL LOADING ARMS.)	●

DATE AUG. 1992
DWN CD39807/RS
GPD. B.B.
SITE ASSESSMENT AND CORRECTIVE ACTION REPORT
TURBINE FUEL LOADING/OFFLOADING AREA
PUMP STATION #10
FIGURE 4