STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

SEAN PARNELL, GOVERNOR

555 Cordova Street
Anchorage, AK 99501
PHONE: (907) 269-7526
FAX: (907) 269-7649
www.dec.state.ak.us

File: # 330.38. 064
Return Receipt Requested
Article No: 7008 1830 0002 6349 4227

March 17, 2010

Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507
PO Box196660
Anchorage, AK 99519-6660

Re: Record of Decision (ROD); Alyeska PS 05 Tank Farm
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) 5 Tank Farm located at approximately Mile 137 of the Dalton Highway. 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 the Alyeska PS 05 Tank Farm 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 with ICs determination.

Introduction

Site Name and Location
Alyeska PS 05 Tank Farm
Mile 137 Dalton Highway
Near Coldfoot, AK

Name and Mailing Address of Contact Party:
Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507
PO Box196660
Anchorage, AK 99519-6660

Database Record Key and CS file number:
Hazard ID # 3114
CS file # 330.38.064

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

Background
In 1992, Alyeska found and removed approximately 4 cubic yards of impacted soil above the tank farm liner near the Therminol valve cabinet. The excavation was lined and backfilled.

During a 1998 inspection and repair of bootliners within the tank farm, more soil suspected to be impacted by Therminol was encountered and excavated. A sheen and a small amount of free product were observed on water collected at the excavation bottom.

Contaminants of Concern
During the investigations at this site, soil samples were analyzed for diesel range organics (DRO) and residual range organics (RRO). Groundwater samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Diesel Range Organics (GRO)
- Dibenzo(a,h)anthracene

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.

Contaminant	Site Cleanup Level (mg/kg)
DRO	250
Dibenzo(a,h)anthracene	4.0

The groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C.

Contaminant	Site Cleanup Level (mg/L)
DRO	1.5
Dibenzo(a,h)anthracene	0.00012

Site Characterization and Cleanup Actions
During the 1998 excavation activities, soil was removed and eleven confirmation samples analyzed for diesel range organics (DRO) showed that contamination remained in the fill above the liner. Five results were above current migration to groundwater with one sample above human health levels (Table B2 ingestion or inhalation) at 15,000 mg/kg DRO. One of these samples was analyzed for DRO and RRO aliphatic and aromatic fractions. The DRO aromatic fraction was found to be above Table B2 cleanup levels. Soil samples were not collected below the tank farm liner where the bootliner seam was loose, and an investigation at the edges of the tank farm was planned.

Later in 1998, six borings were advanced along the west and south perimeter of the tank farm and these were converted into monitoring wells. Another boring was advanced within the tank farm downgradient from the source, however this was not in the area where the liner was unseamed. Ten soil samples were collected from these borings and analyzed for DRO with one detected result of 707 mg/kg at 10 feet in B-1/MW-1.

In 1998 water was collected from the two wells containing groundwater, and from a catchment within the tank farm. The water samples were analyzed for BTEX and polynuclear aromatic hydrocarbons (PAHs). The only compound detected above Table C cleanup values was dibenzo(a,h)anthracene which was detected in the catchment water sample at 0.2 ug/L. In 1999 and 2000, groundwater samples collected from all four wells were below Table C cleanup values. In 2007, the monitoring wells were decommissioned as approved by ADEC.

Remedial actions taken at Alyeska Pump Station 5 Tank Farm have been limited to removal actions.

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 inaccessibility and extent of contamination remaining.

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	Soil contamination remaining is below surface and below tank farm. Any remaining soil contamination at the surface is de minimis in volume.
Sub-Surface Soil Contact	De minimis exposure	Extent of contamination above direct contact levels is de minimis. Excavation was conducted and a majority of the contamination removed. Removal of

		more material could compromise structural integrity. Contaminated soil is not currently accessible. The contamination needs to be addressed when the soil becomes accessible.
Inhalation – Outdoor Air	De minimis exposure	It is not expected that de minimis levels of volatile contaminants remaining at the site will impact outdoor air quality.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	This is a pump station and no occupied buildings are present or expected to be constructed in the future. Furthermore remaining contamination is de minimis in volume.
Groundwater Ingestion	De minimis exposure	Last two rounds of groundwater sampling results below Table C. PS 05 groundwater well screened at 46-48 feet bgs and is sampled for VOCs every 3 years. PS 05 is a standby station with few receptors.
Surface Water Ingestion	Pathway Incomplete	No evidence of offsite migration therefore this pathway is considered incomplete.
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.

ADEC Decision

There is contamination remaining above established cleanup levels at the Alyeska PS 12 Mainline Sump 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 Alyeska PS 05 Tank Farm (see attachment B). When the remaining contamination in this area becomes available, the contaminated soil must be evaluated and/or 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,

For

Linda Nuechterlein
Environmental Program Manager

Recommended By,

Keather McLoone
Environmental Program Specialist

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

Cc: Scott Rose, SLR
Jerry Brossia, JPO
Bob Schneider, Fairbanks 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 dated **March 17, 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).

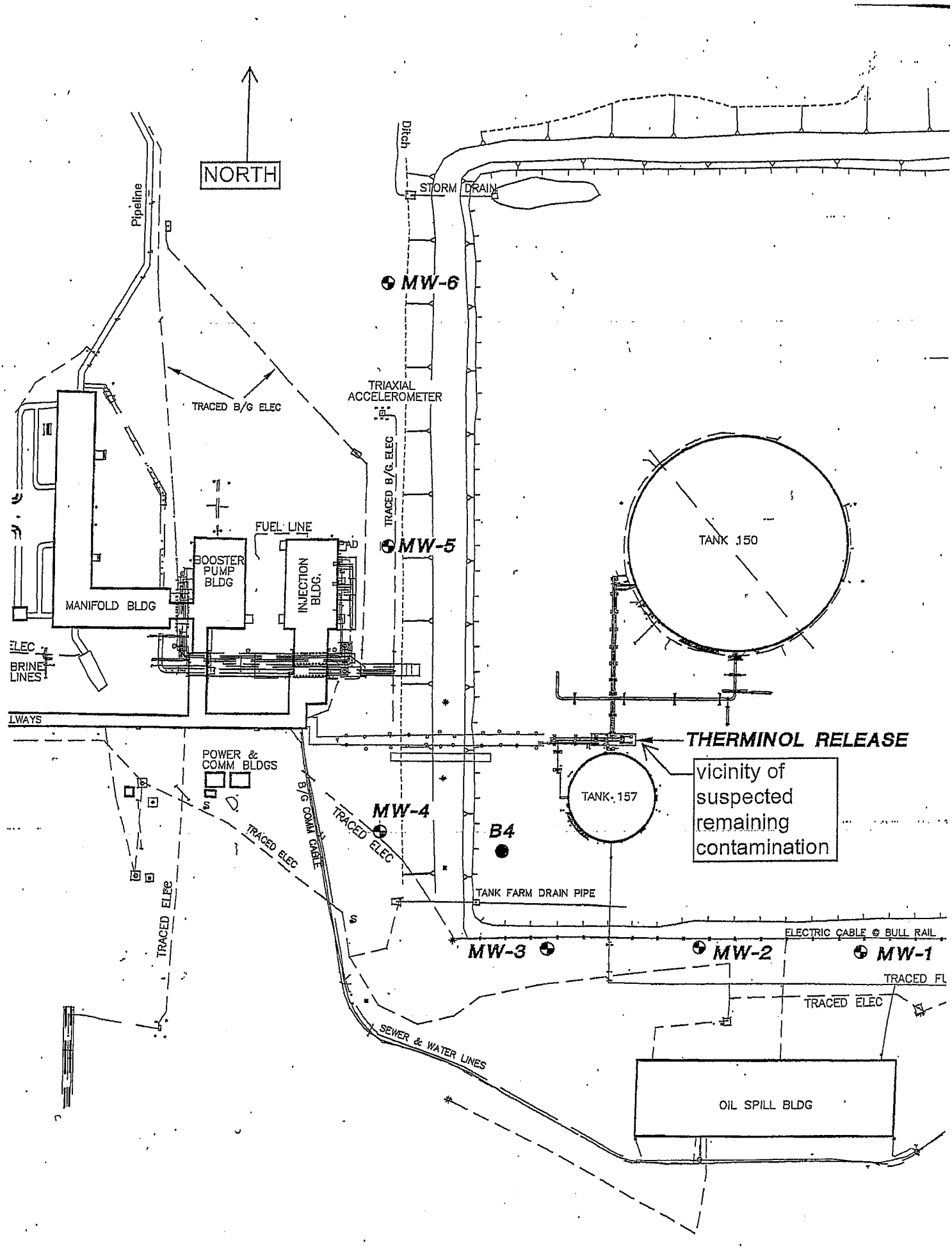
_____
Signature of Authorized Representative, Title
Jan Shifflet/ Alyeska Pipeline Service Company

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

For Internal Use Only
Hazard ID # 3114
CS file # 330.38.064
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.


NORTH
Pipeline
Ditch
STORM DRAIN
MW-6
TRIAXIAL ACCELEROMETER
TRACED B/G ELEC
TRACED B/G. ELEC
FUEL LINE
MW-5
BOOSTER PUMP BLDG
INJECTION BLDG.
MANIFOLD BLDG
TANK 150
ELEC
BRINE LINES
LWAYS
THERMINOL RELEASE
vicinity of suspected remaining contamination
POWER & COMM BLDGS
TANK 157
MW-4
B4
B/G COMM CABLE
TRACED ELEC
TRACED ELEC
TRACED ELEC
TANK FARM DRAIN PIPE
ELECTRIC CABLE @ BULL RAIL
MW-3
MW-2
MW-1
TRACED FL
TRACED ELEC
SEWER & WATER LINES
OIL SPILL BLDG