

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

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

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File: 1521.26.010

June 30, 2011

Via Electronic and Regular Mail

Mr. Norman Fredricksen
Post Office Box 767
Petersburg Alaska 99833

RE: Decision Document: Petersburg Motors Spill
Corrective Action Complete Determination

Dear Mr Fredricksen:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Petersburg Motors Spill located at 283 Haugen in Petersburg, Alaska. Based on the information provided to date, the DEC has 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 Petersburg Motors Spill Contaminated Site administrative record, which is located in DEC's Juneau office. 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:

Petersburg Motors Spill
Post Office Box 767
Petersburg, Alaska 99833
Block 51 Lots 1&2

Name/Address of Contact

Norman Fredricksen
Petersburg Motors Service
PO Box 767
Petersburg, AK 99833

Database Record Key and File Number:

File: 1521.26.010
Hazard ID: 23366
LUST Facility ID# 206, Event ID# 3013

Regulations applicable to cleanup:

Title 18 Alaska Administrative Code (AAC)
Chapter 78

Background

In January 2005 an underground storage tank (UST) overfill was reported to DEC, prompting a response by DEC's Southeast Area Response Team. Petersburg Motors was advised to place sorbent boom where drainage enters Hammer Slough and monitor for sheen.

In the summer of 2005 the tank was removed. In accordance with Chapter two of the UST Procedures Manual, a certified third party, principal investigator John Carolyn of Northern Petroleum Testing and Services (NTPS) performed the closure site assessment, release investigation and authored *Underground Storage Tanks Closure Assessment Petersburg Motors 10 North 2nd Street Petersburg Alaska* (Report). The Report provided description of the USTs and appurtenances, soil layers and unusual conditions observed during the UST removal process for assessment and release investigation. Environmental data include soil sampling laboratory data on subsurface soil conditions at the limits of excavation and along the piping run. Soil samples at the site have been analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX) and gasoline (GRO), diesel (DRO) and residual (RRO) petroleum hydrocarbon fractions.

A new UST, meeting current regulatory requirements, was installed in 2006.

Characterization Activities and Cleanup Actions

Soil contamination from the petroleum release was suspected and confirmed by observation and by soil screening. The contaminated soil storage placement was along the east side of the building in a stockpile between impermeable liners in accordance with 18 AAC 78.274(a). All soils removed from the tank excavation, piping run and under the dispensers were stored in this containment.

The Release Investigation did not continue more than two feet below the bottom of the USTs because field screening indicated the limit of contamination was met and groundwater in the area is deeper than five feet below the bottom of the USTs. Ground water was not encountered in the excavation to remove the USTs and was not sampled in the Release Investigation.

At least two discrete analytical samples were collected in the excavation for every 250 square feet of subsurface area exposed from locations either beneath the USTs or where soil contamination was indicated by field screening conducted as required in the UST Procedures Manual. In accordance with 18 AAC 78.090(B), confirmation analytical samples were collected in laboratory supplied containers from locations beneath each of the three (3) tanks and each dispenser and each change in direction on the piping run. Laboratory analytical samples were collected on the North and South end of each tank at an elevation of 107 inches (8 feet 11 inches) below surface grade.

Two of the fourteen soil confirmation samples had results in concentrations that exceed regulatory cleanup levels for the migration to ground water (MTG) exposure pathway. First, the unleaded (tank) South sample had a benzene concentration of 0.0322mg/kg. The benzene cleanup goal for the MTG pathway is 0.025mg/kg. The other compound-specific analyte results for this sample were below instrument detection as were the gasoline and diesel range hydrocarbon (GRO & DRO) results. Second, the diesel dispenser sample collected from subsurface soil had a DRO concentration of 314 mg/kg. The cleanup levels for the MTG pathway is 230mg/kg. The compound-specific analyte (BTEX) results for this sample were below instrument detection as was the GRO result.

Due to the fact that the MTG cleanup level exceedences are minor and no other analytes were detected in each of those samples and the other twelve soil samples is a good indication that the extent of any remaining soil contamination is deminimis. The soil data indicate that procedures by NPTS to screen and segregate contaminated material during the tank removal were effective in providing corrective action cleanup during the tank closure assessment and release investigation process. The stockpiled contaminated soil was transported to the Allied Waste Services soil treatment facility in Washington State for remedial treatment.

Summary of Soil Contamination

Sample location	Depth below grade	Analyte	Concentration mg/kg
dispenser	25 inches	DRO	314
UST South	107 inches	Benzene	0.0322

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX) and gasoline (GRO), diesel (DRO) and residual (RRO) petroleum hydrocarbon fractions. Based on these analyses and knowledge of the source area, the following Contaminant of Concern was identified:

- Diesel Range Organics
- Benzene

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.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
DRO	230.0
Benzene	0.025

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the 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 an attachment.

Cumulative Health Risk Calculation

Pursuant to 18 AAC 75.325 (g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be calculated. A chemical that is detected at one-tenth or more of the Table B1 inhalation or ingestion values set out in 18 AAC 75.341(c) or the Table B2 values set out in 18 AAC 75.341(d) must be included when calculating cumulative risk under 18 AAC 75.325(g). Cumulative risk from petroleum contamination of environmental media at the site is addressed using the BTEX 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 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, and this site will be designated as closed on the Department's database.

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.

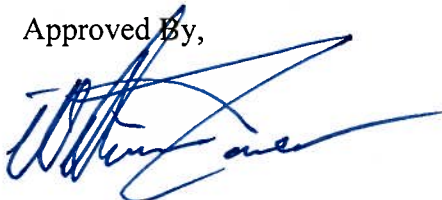
This determination is in accordance with 18 AAC 78.276(f) and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

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,



William Janes
Environmental Manager

Recommended By



Bruce Wanstall
Environmental Program Specialist

cc: Larry Brinkerhoff, UST Program Manager, via email

Attachment: Table 1

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	The soil stockpile has been transported to a treatment facility and treated. Soil contamination at the site is limited to subsurface soil.
Sub-Surface Soil Contact	Deminimis exposure	Contamination remains in the subsurface, but is either below migration to groundwater (MTG) cleanup levels or is in limited (deminimis) quantity.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the subsurface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Deminimis exposure	A building is present at the site and benzene was detected in subsurface soil but attributes of the site and the other analytical and field screening soil data determine that the risk exposure is deminimis.
Groundwater Ingestion	Deminimis exposure	Groundwater was not encountered in the site investigation. Remaining contamination is below migration to groundwater cleanup levels or is Deminimis. No water wells are present in the area.
Surface Water Ingestion	Pathway Incomplete	No potable surface water sources are in the area. There is surface water located within ¼ mile of the site but is non-potable sea water.
Wild Foods Ingestion	Pathway Incomplete	The soil stockpile has been transported off-site and treated and there is no surface soil contamination. No wild foods harvest opportunities are present.
Exposure to Ecological Receptors	Pathway Incomplete	The soil stockpile has been transported to a treatment facility and treated. No ecological receptors are present at the site.

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.