



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File No: 210.26.010

December 2, 2014

Ms. Lorene Ellis
c/o Mr. Terry Ellis
HC63 Box 405
Gakona, Alaska 99586

Subject: **Decision Document: Duffy's Roadhouse
Cleanup Complete Determination**

Dear Mr. Ellis;

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the Duffy's Roadhouse site. This decision letter memorializes the site history, cleanup actions, and standard conditions for long-term site management. No further remedial action is required.

Site Name and Location:

Duffy's Roadhouse
Mile 62.7 Tok Cutoff, Glenn Highway
Gakona, Alaska 99586
Latitude: 62.724786
Longitude: -143.914464

Name and Mailing Address of Contact Party:

Ms. Lorene Ellis
c/o Mr. Terry Ellis
HC63 Box 405
Gakona, Alaska 99586

DEC Site Identifiers:

File No: 210.26.010
Hazard ID: 25412
UST Facility ID: 2497

Regulatory Authority for Determination:

18 AAC 78.276

Site Description and Background

Duffy's Roadhouse is located about two miles northeast of Slana, Alaska at Mile 62.7 of the Tok Cutoff. It is in an area underlain by discontinuous permafrost with a mean annual precipitation of 13 inches each year. The business, formerly a restaurant, lodge, and fueling station closed to the public in 2004. There is an on-site drinking water well that was formerly a public drinking water system (PWSID AK2380353).

Five underground fuel storage tanks (USTs) have been located at this site. Tanks #1 and #2 were closed in 1995 after 34 cubic yards of contaminated soil were removed from around the tanks. For more information on these tanks, please see ADEC File #210.26.005.

Petroleum contamination was noted in 2008 associated with the containment sump at Tank #3. Tanks #3, 4, and 5 were removed in 2010 and 2011 and an assessment was conducted at the associated piping and dispensers.

Groundwater was not located during any of the investigation at the site and based on analytical results of soil samples is not expected to have been impacted.

Contaminants of Concern

During the investigations at this site, soil and groundwater samples were analyzed for diesel range organics (DRO), gasoline range organics, (GRO), volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAH). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were detected above cleanup levels in soil:

- Gasoline Range Organics (GRO)
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX)

Cleanup Levels

The applicable soil cleanup levels at this site are the Method 2 migration to groundwater cleanup levels found in 18 AAC 75.341 Table B1 for the under 40-inch zone

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
GRO	300
Benzene	0.025
Toluene	6.5
Ethylbenzene	6.9
Total Xylenes	63

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

Characterization and cleanup activities began in 2009 near Tank #3. Ten cubic yards (cy) of contaminated soil were excavated and stockpiled onsite. Twenty cy of soil that were excavated and determined to be clean based on analytical sampling were returned to the excavation. Confirmation soil samples collected from the excavation contained DRO up to 611 mg/Kg, GRO up to 16,400 mg/Kg, benzene up to 1.3 mg/Kg, toluene up to 451 mg/Kg, ethylbenzene up to 288 mg/Kg, and total xylenes up to 2,160 mg/Kg.

Tank #3 was removed in 2010 along with 210 cy of petroleum contaminated soil. This soil, along with the 10 cy of soil excavated in 2009 was transported off site for treatment via landfarming at one of two offsite treatment cells. Cell #1 was constructed on property owned at the time by Ammon James Knighten located at Mile 53 of the Tok Cutoff. Cell #2 was constructed on property owned at the time by Mr. and Mrs. Brad and Connie Gavitt located one mile west of Slana on the Tok Cutoff. See Attachment 1 for details.

Contaminated soil was excavated from the Tank #3 location on three occasions in 2010. Following the final excavation in November, the confirmation soil samples from the base and sidewalls of the excavation contained benzene up to 0.165 mg/Kg, toluene up to 70.4 mg/Kg, ethylbenzene up to 30.9 mg/Kg, and total xylenes up to 231 mg/Kg. These exceedances were all in one sample that was collected from an area near Tank #4. A sample from the onsite drinking water well did not contain detectable concentrations of contaminants.

Tanks #4 and #5 were removed in 2011 and additional soil was excavated from the Tank #3 location where contaminants exceeded cleanup levels in 2010. Confirmation samples collected from the base and sidewalls of the excavation did not contain contaminants above cleanup levels, however one sample had an elevated reporting limit for benzene. The associated piping and dispensers were assessed in place and contaminants were not detected during the assessment.

Soil that was suspected to be clean was used as backfill following the receipt of analytical data showing the soil to be below cleanup levels. Following the excavation and transport of all of the contaminated soil from the site, Cell #1 contained approximately 50 cy of contaminated soil and Cell #2 contained approximately 230 cy. Following the tilling of soil in each of the cells, soil samples collected from Cell #1 in 2011 indicated that all soil in the cell was below cleanup levels. Tilling of Cell #2 continued in 2012 and 2013 and sampling was conducted in 2014. Contaminants were not detected above cleanup levels. Cells #1 and #2 remain in place at the Knighten and Gavitt properties respectively and will be allowed to naturally revegetate.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), 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 noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

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

Exposure Pathway Evaluation

Following investigation and cleanup at 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 either De-Minimis Exposure or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below the most stringent ADEC cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Volatile contaminants may remain in the sub-surface soil but at concentrations below the most stringent cleanup levels
Inhalation – Indoor Air (vapor intrusion)	Pathway incomplete	Any remaining contamination is below the most stringent cleanup levels and is located greater than 30 feet from any structures.
Groundwater Ingestion	De-Minimis Exposure	There is no indication that contaminants migrated to groundwater and contamination remaining in the subsurface soil is present at concentrations below the migration to groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	There is no surface water within a quarter-mile of the site and occupants of the site and the nearby community utilize groundwater wells for drinking water.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	There is no surface water within a quarter mile of the site and therefore there is no potential to affect aquatic life. Terrestrial animals would not be affected as there is no contaminants in the surface soil.

Notes to Table 2: “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.

ADEC Decision

Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no risk to human health or the environment from contamination, 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. (See attached site figure.)
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 99811-1800, 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 99811-1800, 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 Cell 1 and Cell 2 Locations

cc: DM Turney, GMAPA, Inc.

