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: 1510.26.002
Via electronic mail only

June 15, 2017

Mr. Ward Mace, Facilities Manager
Alaska Marine Highway Service
Alaska Dept. Transportation & Public Facilities
7559 North Tongass Highway
Ketchikan, Alaska 99901

Mr. John Barnett
Environmental Manager - Southcoast Region
Alaska Department of Transportation & Public Facilities
P.O. Box 112505 – 6860 Glacier Highway
Juneau, AK 99811-2505

RE: Decision Document; ADOT&PF AMHS Hoonah Ferry Terminal
Corrective Action Complete Determination

Dear Ward and John,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has reviewed the environmental records for the referenced site. This decision letter explains the site history, cleanup activity and standard conditions for long term management. No further remedial action by the Alaska Department of Transportation & Public Facilities (ADOT&PF) nor the Alaska Marine Highway Service (AMHS) is required.

Site Name and Location
ADOT&PF AMHS Hoonah Ferry Terminal
119 Cannery Road
Hoonah, Alaska 99829
S28 T43S R61E CRM

Address of Contact Party
Mr. John Barnett
ADOT&PF AMHS
P.O. Box 112505
Juneau, AK 99811-2505

DEC Site Identifiers
Hazard ID: 25771
File: 1510.26.002

Regulatory Authority for Determination
Title 18 Alaska Administrative Code 78

Site Description and Background
The Hoonah Ferry Terminal is located northeast of downtown Hoonah. The surrounding properties in the commercial zone of Hoonah are industrial and residential in nature.

On April 5th, 2010 a 550-gallon regulated diesel underground storage tank (UST) #2 was removed from the AMHS Ferry Terminal area in Hoonah. Initial confirmation samples indicated petroleum contamination was below DEC cleanup levels, but additional assessment activities may be required to comply with DEC UST regulations. Additional information (copy of field notes) were requested.

Contaminants of Concern
There were no petroleum contaminants of concern detected in soil above cleanup levels during the course of the UST site investigation. Samples from the site were laboratory analyzed for diesel range hydrocarbons (DRO) and benzene, toluene, ethylbenzene and total xylenes (BTEX) compounds as summarized in the Characterization and Cleanup Activities section of this decision letter.

- Diesel Range Hydrocarbons (DRO)
- Benzene
- Toluene
- Ethylbenzene
- Total xylenes

Cleanup Levels
The most stringent levels of all applicable pathways under Method Two soil cleanup levels for the over 40-inch precipitations zone, established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341 (d), Table B2 apply to the Site. Groundwater criteria list in Table C at 18 AAC 75.345(b)(1) also apply, and surface water as referenced in 18 AAC 75.345(f) must meet the Water Quality Standards. Although groundwater was not investigated for contamination, soil cleanup levels protective of migration to groundwater and in turn, surface water, still apply. The following table displays the contaminants of concern cleanup levels for completed pathways at this site:

Table 1. - Soil Cleanup levels

Chemical	Soil	Groundwater
Benzene	0.022	0.005
Toluene	6.7	1.0
Ethylbenzene	0.13	0.7
Total Xylenes	1.5	10
DRO	230	1.5

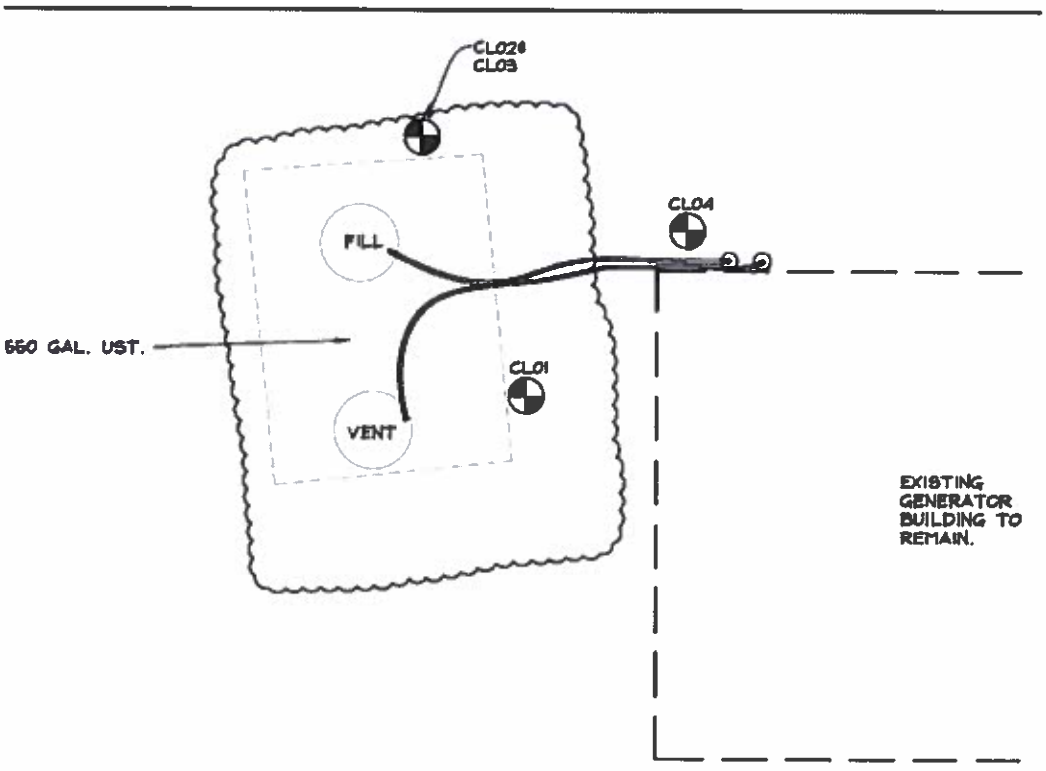
Milligrams per kilogram = mg/kg
Milligrams per liter = mg/L

Release Investigation and Corrective Action Activities
Release investigation and corrective action activities conducted under the regulatory authority of the Contaminated Sites Program began in 2010. These activities are described below.

Nortech Environmental Engineering, Health and Safety (Nortech), assisted Channel Construction (Channel) by providing site assessment oversight during the closure by removal of the 550-gallon steel underground storage tank (UST). The tank, registered as Tank #2 with DEC at UST Facility ID #3219, was used to provide diesel fuel for the Hoonah Ferry Terminal Building. Channel removed the tank on April 5, 2010. Gene Cheeseman with Cheeseman Construction, UST closure license #610, certified the tank closure.

The UST was emptied of fuel prior to excavation and removal. Channel removed the concrete pad that held the UST down and removed the tank using the lifting eyes. The double-walled, STIP$_3$™ tank, flexible piping, and overflow catchment around the fill pipe were found in good condition, whole and without leaks. The tank was cut and recycled after its removal. Groundwater was assumed to be tidally influenced and was not encountered since the Site consisted of imported fill over tidelands.

Site Figure 1 Confirmation soil sample locations



No contamination was observed in the sandy, gravel imported soil, which was excavated to a depth of six feet below ground surface (BGS) to remove the tank. Nortech field screened twelve soil samples taken from the UST excavation. Between 2010 and 2014, DEC requested a copy of the field notes from Nortech to confirm the location of the field screen samples. Once a copy of the field notes was located and submitted to DEC, they indicated the field sample locations include the following: two samples from overburden soil eighteen inches BGS under the tank fill and vent piping; from each of the four excavation sidewalls; from the excavation bottom; and from under the piping run to the building. Photoionization detector readings ranged from 0.8 to 2.2 parts per million by volume.

From the soil field screening sample locations, Nortech selected four soil closure confirmation samples and sent them for laboratory analysis for DRO and BTEX compounds. Section 6.3 Table 2A of the UST Procedures Manual stipulates that site assessment sample analysis for a tank storing #1 diesel also include analyses for gasoline (GRO) range hydrocarbons and polycyclic aromatic hydrocarbon (PAH) compounds, unless DEC approves deviating from this specification. DEC recognized that the Site consisted of imported fill over intertidal, the petroleum release was minor, the data gap was not significant, and therefore waived the requirement to analyze the soil confirmation samples for GRO and PAHs.

Table 2 below displays the highest levels detected in soil remaining at the site for the analytes tested and the sample depth. Levels that are above the applicable cleanup levels are shown in bold print and represent the contaminant(s) of concern.

Table 2 - greatest levels of analytes detected in remaining soil at the site.

Hydrocarbon range and compounds of concern	Greatest level in soil mg/kg	Sample name and depth below the surface
DRO	21.4	CL04 at 6 feet
Benzene	0.0138	CL03 at 6 feet
Toluene	0.0272	CL01 at 6 feet
Ethylbenzene	0.0272	CL01 at 6 feet
Total Xylenes	0.0817	CL01 at 6 feet

Groundwater and Surface Water

Groundwater and surface water are not available in quantity or quality on the Site for samples to be collected. Groundwater may be present in the deep subsurface at the site and in the area during periods of steady rainfall, but is likely hydrologically connected to and tidally influenced by marine waters. Because it is not of sufficient quantity and quality to provide potable drinking water, the receptor of greatest concern is the receiving waters of Port Frederick.

The hydrologic connection between the intermittent groundwater and fluctuating surface water is limited and disperse, due to the low permeability of the geology at the site. No discrete point discharge for sampling for water quality criteria in the waterfront area is present, and no sheens have been observed or reported.

Cumulative Health Risk Calculation

Pursuant to 18 AAC 78.600(d), 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, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

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.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	There is no soil contamination remaining at the surface above the direct contact cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Soil contamination may be present in the subsurface below ingestion levels and future excavation is not planned.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination may remain in the subsurface, but no volatile compounds are present at levels above outdoor inhalation screening levels
Inhalation – Indoor Air (vapor intrusion)	De Minimis Exposure	Buildings may be present but any remaining volatile petroleum levels are either below laboratory reporting limits and/or the inhalation screening levels.
Groundwater Ingestion	Pathway Incomplete	Groundwater, if present, is intermittent and was not investigated for contamination. Hoonah Public Works supplies potable water and sewer to the Site.
Surface Water Ingestion	Pathway Incomplete	Surface water hydraulically connected to the site is not of sufficient quality or quantity for a potable water source.
Wild Foods Ingestion	Pathway Incomplete	The area is commercial and is not a wild foods harvest area and contaminants do not bioaccumulate in flora or fauna.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological receptors are not present and contaminants do not bioaccumulate in flora or fauna.

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.

DEC Decision
The cleanup actions to date have characterized soil contamination at the site. Based on the information available, DEC has determined there is no risk to human health or the environment and no further assessment or cleanup action is required. This site will be designated as closed on the Contaminated Sites Database subject to the following standard conditions:

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 78.600(h). A "site" [as defined by 18 AAC 78.995(134) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

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 me at 410 Willoughby Suite 311 in Juneau by telephone at 907-465-5210 or by email at bruce.wanstall@alaska.gov.

Sincerely,

Bruce Wanstall

Bruce Wanstall
Remedial Project Manager
Contaminated Sites Program

cc: Sally Schlichting, Manager, Juneau Unit DEC Contaminated Sites Program, via email
DEC SPAR Cost Recovery, via email