



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 102.26.175

April 26, 2019

Fairbanks North Star Borough Department of Public Works
ATTN: Janet Smith
P.O. Box 71267
Fairbanks, AK, 99707

**Re: Decision Document: FNSB - Noel Wien Public Library UST #1
Cleanup Complete Determination**

Dear Ms. Smith:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Fairbanks North Star Borough (FNSB) - Noel Wien Public Library Underground Storage Tank (UST) #1 located at 1215 Cowles Street in Fairbanks, Alaska. 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 unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Noel Wien Public Library UST #1, which is located in the ADEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

FNSB - Noel Wien Public Library UST #1
1215 Cowles Street
Fairbanks, Alaska 99709

Name and Mailing Address of Contact Party:

Janet Smith, Deputy Director
FNSB Department of Public Works
PO Box 71267
Fairbanks, Alaska 99707

DEC Site Identifiers:

File No.: 102.26.175
Hazard ID.: 26243

Regulatory Authority for Determination:

18 AAC 78 and 18 AAC 75

Site Description and Background

In June 2011 a 5,000-gallon dual-use diesel UST was removed from the FNSB Noel Wien Public Library. During tank closure and site assessment activities samples from the limits of excavation confirmed that petroleum contamination remained at the groundwater interface.

Contaminants of Concern

During site characterization and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for diesel range organics (DRO), benzene, toluene, ethylbenzene, xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- DRO
- benzo(a)anthracene,
- benzo[a]pyrene,
- benzo[b]fluoranthene
- dibenzo[a,h]anthracene

Cleanup Levels

The approved soil cleanup levels for this site are the most stringent of the method 2 soil cleanup levels for the under 40-inch precipitation zone established in 18 AAC 75.341(c) Table B1 and 18 AAC 75.341(d) Table B2. The groundwater cleanup levels found in 18 AAC 75.345 Table C apply at this site.

Table 1 – Approved Cleanup Levels

| Contaminant | Soil (mg/kg) | Groundwater (ug/L) |
|------------------------|-------------------------|-------------------------------|
| DRO | 250 | 1,500 |
| benz(a)anthracene, | 0.7 | 0.3 |
| benzo[a]pyrene, | 1.5 | 0.25 |
| benzo[b]fluoranthene | 15 | 25 |
| dibenzo[a,h]anthracene | 1.5 | 0.25 |

mg/kg = milligrams per kilogram

ug/L = micrograms per liter

Characterization and Cleanup Activities

In June 2011, UST #1 was removed from the Noel Wien Public Library. The 5,000-gallon heating oil UST was installed in an above grade swale on the western side of the building. During excavation no contamination was found above the tank, or in the vicinity of the fill pipe or fuel lines. Upon removal of the tank staining and fuel odors were encountered in saturated soils in the tank impression but the impacted soils could not be excavated. Groundwater seeping into the tank impression was noted to be free of sheen or discoloration. Contamination was left in place and the excavation was backfilled with clean fill. All fuel lines were cut, drained, and capped where they entered the building.

Fuel lines from this tank entered the building through the western exterior wall and extended through a mechanical closet, bathroom and building entry way before going into the mechanical mezzanine. Locations of abandoned fuel lines were verified and screened with a photoionization detector during an inspection by Nortech Engineering in 2018. No piping was abandoned in inaccessible locations and there was no indication of any releases.

Analytical samples confirmed that stockpiles, fuel lines, and excavation sidewall samples were clean. A single sample collected from beneath the UST contained DRO and four PAHs in excess of the approved soil cleanup levels.

In 2018 Nortech Engineering mobilized to the site to conduct soil and groundwater delineation. Seven soil borings and temporary groundwater sampling points were advanced and one permanent monitoring well was installed. Soil and groundwater samples did not contain contaminants above the approved cleanup levels.

Based on the 2018 results, ADEC has determined that sufficient site characterization has been completed and residual contamination does not remain in soil and has not migrated to groundwater at sufficient concentrations to impact unrestricted use.

Cumulative Risk Evaluation

Pursuant to 18 AAC 78.600(d), when 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 non-carcinogenic 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 meet the human health cumulative risk criteria for residential land use.

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 one of the following: De-Minimis Exposure, Exposure Controlled, 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 | De-Minimis Exposure | Contamination was not found in surface soils (0-2 ft. bgs). |
| Sub-Surface Soil Contact | De-Minimis Exposure | Contamination remaining in subsurface (2-15 ft. bgs) is below soil cleanup levels protective of human exposure. |
| Inhalation – Outdoor Air | De-Minimis Exposure | Contamination remaining on site is below soil cleanup levels protective of human exposure. |
| Inhalation – Indoor Air (vapor intrusion) | De-Minimis Exposure | Remaining contamination in soil and groundwater is below the most stringent cleanup levels and is not expected to impact indoor air quality. |
| Groundwater Ingestion | De-Minimis Exposure | Groundwater contamination is below the groundwater cleanup levels. |
| Surface Water Ingestion | Pathway Incomplete | The nearest surface water, the Chena River, is more than ½ mile away and contamination is not expected to migrate. |

| | | |
|----------------------------------|--------------------|--|
| Wild and Farmed Foods Ingestion | Pathway Incomplete | The site is not located in an area where wild or farmed food could be impacted. |
| Exposure to Ecological Receptors | Pathway Incomplete | The site is not located in an area where ecological receptors could be impacted. |

Notes to Table 2: “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely 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. “Exposure Controlled” means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C 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. (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.
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 ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety or welfare, or to 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, 555 Cordova Street, Anchorage, Alaska, 99501-2617, within 20 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, P.O. Box 111800, 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) 451-5174 or via email at michael.hooper@alaska.gov.

Sincerely,



Michael Hooper
Project Manager

cc (via email): Spill Prevention and Response, Cost Recovery Unit