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: 1516.26.039

April 20, 2016

City of Ketchikan
Attn: Karl Amylon, City Manager
334 Front Street
Ketchikan, AK 99901

Re: Decision Document: City of Ketchikan Charcoal Point Wastewater Treatment Plant UST 1
Corrective Action Complete Determination

Dear Mr. Amylon:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program has reviewed the environmental records for the City of Ketchikan Charcoal Point Wastewater Treatment Plant UST 1 located at 3921 Tongass Avenue in Ketchikan, Alaska. 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:
City of Ketchikan Charcoal Point
Wastewater Treatment Plant UST 1
3921 Tongass Avenue
Ketchikan, AK 99901

Name and Mailing Address of Contact Party:
City of Ketchikan
Attn: Karl Amylon, City Manager
334 Street
Ketchikan, AK 99901

DEC Site Identifiers:
File No: 1516.26.039
Hazard ID: 26543

Regulatory Authority for Determination:
18 AAC 75 and 18 AAC 78

Site Description and Background

On September 1, 1990, a 4,000-gallon diesel underground storage tank (UST) was installed to provide fuel for an emergency generator at the City of Ketchikan Charcoal Point Wastewater Treatment Facility. The tank was removed on January 26, 2016 for replacement with an above ground storage tank (AST). Prior to removal, any remaining diesel was pumped from the tank.

Following tank removal, field screening samples were performed in areas where contamination was most likely to be present and tested for hydrocarbon vapors with a photoionization detector (PID). Volatile

hydrocarbons were detected in samples collected around the piping containment chamber on the north end of the tank. These results were consistent with visual and olfactory clues. Groundwater was not encountered during tank removal or excavation.

Contaminants of Concern
The following contaminants of concern, those above approved cleanup levels, were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Diesel Range Organics (DRO)

Cleanup Levels
This site is classified as within the over 40 inches of precipitation zone and migration to groundwater cleanup levels apply. Prior to corrective remedial actions, DRO was detected in soil above the approved Method 2 migration to groundwater level for the over 40-inch precipitation zone, established in 18 AAC 75.341(d), Table B2.

Table 1 – Approved Soil Cleanup Levels

Contaminant	Migration to Groundwater (mg/kg)	Inhalation (mg/kg)	Ingestion (mg/kg)
DRO	230	12,500	8,250

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities
Field screening with a PID traced the extent of contamination vertically and horizontally throughout the excavation area. A total of five discrete soil samples were taken in the areas with the highest field screening results. Soil samples were analyzed for: diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX). Soil samples KWT-1 and KWT-4 were also analyzed for polyaromatic hydrocarbons (PAHs). The only exceedance detected among the samples was a concentration of 2,500 mg/kg DRO in sample KWT-1, collected from the north side of the tank, near the piping containment chamber. Based on these analytical results, additional field screening was conducted to further delineate contamination around this sample area. Approximately six cubic yards of contaminated soil was subsequently excavated around sample KWT-1 and segregated in a temporary on-site stockpile. This additional excavation included the areas with the highest field screening results to ensure that all the soil potentially above the most stringent cleanup levels was removed. Upon receiving ADEC approval, these six yards of contaminated soil were shipped to Republic Services for disposal at Roosevelt Regional MSW Landfill in Washington.

Approximately 35 cubic yards of soil generated during the tank removal were presumed clean and temporarily stockpiled off-site. This stockpile was characterized to determine whether treatment or disposal was necessary. Five field screening samples were collected to determine the most concentrated areas of contaminants within the stockpile. Two grab samples (plus one duplicate) were taken at the highest field screening sample results, 18 inches below the surface of the stockpile. Detections of GRO, DRO, BTEX, and PAHs were all well below migration to groundwater cleanup levels. The soil from this stockpile was used as backfill.

Cumulative Risk Evaluation

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, 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 one of the following: 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	De-Minimis Exposure	Contamination remains in surface soil (0-2 feet below ground surface) but is below the most stringent MTG cleanup level.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in sub-surface soil, but is below the most stringent MTG cleanup level.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains sub-surface soils, but is below the most stringent MTG cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Contamination is present in surface and subsurface soils but is below the most stringent MTG cleanup levels. Groundwater Contamination is not present.
Groundwater Ingestion	Pathway Incomplete	Groundwater contamination is not present.
Surface Water Ingestion	Pathway Incomplete	No surface water is present at the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Area is not used for hunting, fishing, or harvesting of wild or farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Remaining contamination is very limited in volume and extent and does not pose a risk to ecological receptors.

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.

April 20, 2016

ADEC Decision

Remaining petroleum contamination in soil is below approved cleanup levels. This site will receive a "Closed" designation on the Contaminated Sites 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 78.600(h). 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 78.276(f) 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) 269-3083 or Kara Kusche at (907) 269-7530.

Nathan Maxwell
Environmental Program Technician

Kara Kusche
Environmental Program Manager

Attachment: Site Figure


Tongass Ave
UST Excavation Area
7
Revillagigedo Island