



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: 390.38.003

September 10, 2015

Mr. Joe Ehrheart
North Slope Borough
3000 C Street Suite 104
Anchorage, AK. 99503

Re: Decision Document: NSB Atqasuk Fire Station Waste Heat Recovery Line
Cleanup Complete Determination

Dear Mr. Ehrheart:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the NSB Atqasuk Fire Station Waste Heat Recovery Line site. 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 this site will be closed. This decision is based on the administrative record for the NSB Atqasuk Power Plant Waste Heat Recovery Line site, which is located in the offices of the ADEC in Anchorage, Alaska. No further remedial action is required.

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 Cleanup Complete determination.

Site Name and Location:

NSB Atqasuk Fire Station-
Waste Heat Recovery Line
Latitude: 70.482011
Longitude: -157.421746

Name and Mailing Address of Contact Party:

Mr. Joe Ehrheart
North Slope Borough
3000 C Street Suite 104
Anchorage, AK 99503

DEC Site Identifiers:

File No: 390.38.003
Hazard ID: 25374

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The NSB Atqasuk Fire Station Waste Heat Recovery Line site is located generally southwest of the intersection at Shugluk Street and Tikigluk Street in Atqasuk, Alaska. The city of Atqasuk is located in the arctic zone, about 60 miles south-southwest of Barrow. An ethylene glycol pipeline, which runs through the west side of Atqasuk provides glycol to several structures; including the vacuum building, the

washeteria, power plant, clinic, community center, fire station, and school. The city obtains drinking water from the Ikmakrak Lake, which is located about 750 feet west of the site.

In October 2008, a release of about 250 gallons ethylene glycol occurred inside the fire station building because of a faulty pressure-relief valve (ADEC Spill Number 08399929401). The ethylene glycol reportedly flowed from the faulty valve, into the fire station bay, and then outside to the ground beneath the fire station building.

Contaminants of Concern

During the investigations at this site, soil and groundwater samples were analyzed for ethylene glycol and propylene glycol; glycol was not present at detectable levels in any samples. Ethylene glycol is the primary contaminant of concern.

Cleanup Levels

Default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, for the migration-to-groundwater (MTG) zone. Default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C.

Table 1 – ADEC Cleanup Levels

Contaminant	Soil Cleanup Level (mg/kg)	Groundwater Cleanup Level (mg/L)
Ethylene Glycol	190	73

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

Characterization and Cleanup Activities

The 2008 glycol release was investigated for the first time in July 2015. The objective of the 2015 investigation was to evaluate glycol impacts to surface soil and water beneath the fire station building and surrounding soils. Numerous soil and water samples were selected for Hach glycol field screening tests. Based on screening results, 6 soil samples and 1 water samples were submitted for laboratory analysis of ethylene glycol and propylene glycol. All sample results were below laboratory limits of quantitation.

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, 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	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	Pathway Incomplete	Contamination is not present in sub-surface soil.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination is not present in surface or sub-surface soils.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are built on pilings, above ground.
Groundwater Ingestion	Pathway Incomplete	Groundwater is not contaminated and is not used as a drinking water source in the vicinity of the site.
Surface Water Ingestion	Pathway Incomplete	Contamination is not present in surface water.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contamination is not present in surface or sub-surface soils.
Exposure to Ecological Receptors	Pathway Incomplete	No terrestrial or aquatic exposure routes present.

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. “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.

ADEC Decision

This site will receive a “Closed” designation on the Contaminated Sites Database, subject to the following standard conditions.

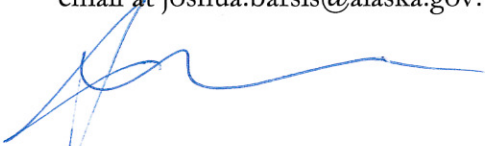
1. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. A “site” [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
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.

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) 269-7691 or by email at joshua.barsis@alaska.gov.



Joshua Barsis
Project Manager