



# Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE Contaminated Sites Program

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DEC File No: 2337.38.006

December 20, 2023

Stephen Peskosky, CEO Tyonek Native Corporation 1689 C Street, Suite 219 Anchorage, AK 99501 <u>speskosky@tyonek.com</u>

Re: Decision Document: Central Alaska Utilities Site Cleanup Complete Determination

Dear Mr. Peskosky

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Central Alaska Utilities Site located approximately six miles west of Tyonek. 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 information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Central Alaska Utilities Site maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply.

Site Name and Location: Central Alaska Utilities Site NE <sup>1</sup>/<sub>4</sub> SE <sup>1</sup>/<sub>4</sub> S1 T11N R12W SM Tyonek, AK 99682

DEC Site Identifiers:

File No.: 2337.38.006 Hazard ID.: 451 Name and Mailing Address of Contact Party: Stephen Peskosky, CEO Tyonek Native Corporation 1689 C Street, Suite 219 Anchorage, AK 99504

**Regulatory Authority for Determination:** 18 Alaska Administrative Code (AAC) 75

### Site Description and Background

Central Alaska Utilities Site was an electrical generation facility located approximately 6 miles west of the village of Tyonek, AK. The old power plant operated until approximately 1973 and now the site consists of the abandoned generator building surrounded by a compacted gravel perimeter (Figure 1). Two diesel above ground storage tanks (AST) were believed to have been located at the east end of the building but were removed sometime between 1973 and 1978 and no observed releases were reported in this area. The contamination at this site resulted from small volume releases of individually scattered drums (less than 55 gallons) that occurred over 30 years ago.

#### **Contaminants of Concern**

During the site investigation activities samples were collected from soil and analyzed for volatile organic compounds (VOC), semi volatile organic compounds (SVOC), benzene, ethylbenzene, toluene, and xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO), and residual range organics (RRO) and pesticide/polychlorinated biphenyls (PCBs). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern (COCs) at this site:

• DRO

## **Cleanup Levels**

Soil cleanup levels applicable to the site are the most stringent Method 2 cleanup levels for the under 40inches of precipitation climate zone found in 18 AAC 75.341(c), Table B1 and 18 AAC 75.341(d), Table B2.

#### Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
DRO	250

Notes:

1. mg/kg = milligrams per kilogram

2.  $\mu g/L = micrograms per liter$ 

# **Characterization and Cleanup Activities**

In August 1988, an Alaska Department of Environmental Conservation (DEC) team surveyed the site and found 16 drums appearing to contain oil. They also noted that an estimated 700 square feet of soil appeared to be impacted by leaked oil from these drums. Seven drums were field screened for PCBs and an analytical sample was collected from one drum. The analytical sample results did not detect PCBs.

In 1999, the Environmental Protection Agency (EPA) Region 10 Superfund Technical Assessment and Response Team (START) performed a Removal Assessment/Preliminary Assessment (RA/PA) of the site. The investigation of the area identified fourteen drums approximately 75 feet east of the building and 2 drums in a nearby ravine. Most of the drums were unlabeled, several were half-full (or less) of liquid, and 3 had surface stains around them. There were no visual signs of soil contamination in the location of the

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former ASTs although it was heavily vegetated. Three soil samples (2 from beneath drums and 1 near the suspected AST locations) and 2 drum content samples were collected and analyzed for DRO, RRO, GRO, BTEX, VOC, SVOC, and pesticides/PCB. Soil sample results indicated concentrations of DRO and RRO above DEC cleanup levels. Samples from the drums indicated they had previously contained a petroleum product. Pesticides were detected in one drum sample which was most likely a result of pesticide use nearby. The EPA concluded that a limited amount of material spilled, and downward migration of the contaminants in the soil was likely minimal due to the compacted soils on the pad.

Tyonek Native Corporation conducted site characterization in 2022. Seventeen 55-gallon fuel drums were located scattered throughout the site (Figure 1). Many of the drums were crushed, had the tops cut off and holes punctured in the sidewalls for burn barrels, or were located on a concrete pad to a former outbuilding. Five drums still contained liquid. Empty drums or drums located on the concrete pad were not field screened. Vegetation and overburden was removed near the remaining drums to determine if surface stains existed. Soil samples were collected with shovels, stainless steel spoons and/or hand augers. Soil was screened by headspace screening using a photo-ionization detector (PID) and Dexsil PetroFLAG total petroleum hydrocarbon testing. A laboratory analytical sample was collected beneath 5 drums at approximately 2 feet deep, including 2 drums with surface stains around them. Field screening for DRO with PetroFLAG test kits was also performed beneath 3 drums where the analytical sample was collected and in the soil 1 to 2 feet below the sample location.

Samples were analyzed for DRO, RRO, GRO, and BTEX. Sample results indicted concentrations of DRO slightly above DEC cleanup levels in the 2 soil samples collected from drums with surface staining around them. Results for the remaining samples indicated concentrations of DRO and RRO were below cleanup levels. The liquid from 2 drums was also screened for chlorinated constituents using a Clor-D-Tect test kit that conformed with the EPA SW846 Method 9077. This screening did not detect chlorinated compounds.

Where contamination was present (confirmed by analytical samples), field screening with Dexsil PetroFLAG for DRO indicated that the contamination did not reach beyond 3 feet below ground surface.

# **Remaining Contamination**

The maximum concentrations of contaminants remaining at the site are shown in Tables 2a. The sample location referred to in Tables 2a is shown in the attached site figure (Figure 1).

Contaminant	Soil (mg/kg)	Sample Location	Date Sampled
DRO	434	D#5	7/2022

Table 2a - Maximum Contaminant Concentrations Remaining in Soil

# **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 (HI) of 1 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.

## **Exposure 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. A summary of this pathway evaluation is included in Table 2.

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remains in the subsurface below
		human health (inclusive of direct contact) and
		ingestion levels in 18 AAC 75.341, Tables B1 and
		B2.
Subsurface Soil Contact	De Minimis Exposure	Contamination remains in the subsurface below
		human health (inclusive of direct contact) and
		ingestion levels in 18 AAC 75.341, Tables B1 and
		B2.
Inhalation – Outdoor Air	Pathway Incomplete	Contaminates in soil are not volatile enough to
		reach outdoor air.
Inhalation – Indoor Air	Pathway Incomplete	Occupied buildings are not located on site and are
(Vapor Intrusion)		not expected to be placed on site in the future.
		Contaminates in soil are not volatile enough to
		reach outdoor air.
Groundwater Ingestion	De Minimis Exposure	Due to the age and limited volume of the spills
		and the depth to groundwater at this site, risk via
		the migration to groundwater pathway is
		considered de minimis.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water
		source in the vicinity of the site.
Wild and Farmed Foods	Pathway Incomplete	Contaminants of concern do not have the
Ingestion		potential to bioaccumulate in plants or animals.
Exposure to Ecological	Pathway Incomplete	Contamination is present at de minimis levels and
Receptors		does not affect ecological receptors on site and
		does not migrate off site

Notes:

1. "De Minimis Exposure" means that, in DEC's judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.

2. "Pathway Incomplete" means that, in DEC's judgment, the contamination has no potential to contact receptors.

3. "Exposure Controlled" means there is an IC in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

#### **DEC Decision**

Soil contamination at the site has been determined to be at concentrations below the approved cleanup levels suitable for residential land use. Due to the age and limited volume of the spills and the depth to groundwater at this site (50 feet), the migration to groundwater pathway and groundwater ingestion

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pathways are considered de minimis. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database.

DEC approval is required for movement and disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Please contact DEC for information about applicable regulations and requirements. A "site", as defined by 18 AAC 75.990, means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, 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. If, in the future, groundwater from this site is to be used for other purposes, 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 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

# Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page <u>https://dec.alaska.gov/commish/review-guidance/</u> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this closure decision, please feel free to contact me at (907) 262-8200 or email at <u>dawn.wilburn@alaska.gov.</u>

Sincerely,

DocuSigned by: Dawn Wilburn

Dawn Wilburn Environmental Program Specialist

cc: DEC, Division of Spill Prevention and Response, Cost Recovery Unit

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Figure 1: Fuel drums located around abandoned power plant building. The red pins denote sample locations above DEC cleanup levels.