THE STATE
of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

Division of Spill Prevention and Response
Contaminated Sites Program

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File: 220.26.003

April 18, 2013

Bill Heubner
National Park Service, Alaska Regional Office
240 West 5th Avenue
Anchorage, AK 99501

Re: Decision Document, NPS Eielson Visitor Center, Denali National Park,
Corrective Action Complete Determination

Dear Mr. Heubner:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the National Park Service (NPS) Eielson Visitor Center site in Denali National Park & Preserve. Based on the information provided to date, the ADEC has 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 site, which is located in the ADEC office in Fairbanks, Alaska. 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 Corrective Action Complete Determination.

Site Name and Location:
NPS Eielson Visitor Center
Milepost 66.1, Denali Park Road
Denali National Park

DEC Site Identifiers:
File: 220.26.003
Hazard ID: 24984

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

Background
The NPS Eielson Visitor Center is located at milepost 66.1 on the Denali Park Road in Denali National Park and Preserve. Nearby surface water bodies include the Toklat River, located 6.5 miles to the east; George Creek, located 0.7 miles to the south; and Stoney Creek, located 1.25 miles to the east. Depth to groundwater is expected to be 50 feet in this area.

This site has two source areas of contamination, a former 2,000-gallon diesel underground storage tank (UST) near the old Eielson Visitor Center, and a 1,000-gallon diesel UST at the former generator shed. The old Eielson Visitor Center was demolished in 2005 and a new visitor center was built in the same location in 2006. In the early 2000s, the former generator shed was replaced with a new generator shed, which has since been removed. The attached figure shows the locations of the USTs, the former visitor center, and the new visitor center.

Site Characterization and Cleanup Actions

Former 2,000-gallon UST at the old Eielson Visitor Center

In 1996, the NPS removed the 2,000-gallon UST at the former Eielson Visitor Center. Soil samples collected from the area indicated diesel range organics (DRO) concentrations up to 23,100 mg/kg remained at the site. The soil could not be excavated at the time due to structural limitations.

During the summer of 2005, the old Eielson Visitor Center building was demolished, allowing the contaminated soil under the structure to be assessed. In 2005 and 2006, approximately 900 cubic yards of contaminated soil was removed and transported off-site for thermal remediation. Contaminated soil was excavated to a depth of 18 feet.

Confirmation samples were collected from the limits of the excavation and sampled for gasoline range organics (GRO); DRO; benzene, toluene, ethylbenzene, and xylenes (BTEX); and polynuclear aromatic hydrocarbons (PAHs). Results were compared to the 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater cleanup levels. The following table shows the highest detected results. Note that naphthalene and phenanthrene were the only two PAH compounds detected.

	Highest Sample Result	Cleanup Level
GRO	271 mg/kg	300 mg/kg
DRO	**3,840 mg/kg**	250 mg/kg
Benzene	non-detect (0.0149 mg/kg)	0.025 mg/kg
Toluene	0.0669 mg/kg	6.5 mg/kg
Ethylbenzene	4.94 mg/kg	6.9 mg/kg
Xylenes	13.7 mg/kg	63 mg/kg
Naphthalene	3.24 mg/kg	20 mg/kg
Phenanthrene	0.842	3000 mg/kg

RegenOx, a chemical oxidation technology, was applied to the remaining contamination as an in-situ treatment method. Approximately 3,960 pounds of RegenOx was applied to the excavation before it was backfilled. The new visitor center has an operating radon mitigation system in place.

Former 1,000-gallon diesel UST at the former generator shed

In 1996, the NPS removed a 1,000-gallon UST located near the former generator building. Confirmation sample collected from the tank excavation were analyzed for DRO and BTEX. Results indicate contamination was left on site, however further excavation was prevented due to the proximity of the building. Results were compared to the 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater cleanup levels. The following table shows the highest detected results.

	Highest Sample Result	Cleanup Level
DRO	**5,852 mg/kg**	250 mg/kg
Benzene	**non-detect (0.05 mg/kg)**	0.025 mg/kg
Toluene	0.1473 mg/kg	6.5 mg/kg
Ethylbenzene	non-detect (0.05 mg/kg)	6.9 mg/kg
Xylenes	1.543 mg/kg	63 mg/kg

According to information provided by the NPS, in the early 2000's, the old generator building was demolished and the entire area was over-excavated to a depth of 6 feet. No soil samples were collected, and there is no record of what happened to the soil. A new generator building was then placed on the site, but has since been removed.

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 presented below:

2,000-gallon diesel UST at old Eielson Visitor Center

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contaminated soil has been removed to a depth of 18 feet.
Sub-Surface Soil Contact	Pathway Incomplete	Contaminated soil has been removed to a depth of 18 feet. Remaining concentrations are below ADECs ingestion cleanup level.
Inhalation – Outdoor Air	De Minimis	Contaminated soil has been removed to a depth of 18 feet. Remaining concentrations are below ADECs inhalation cleanup level.
Inhalation – Indoor Air (vapor intrusion)	De Minimis	Contaminated soil has been removed to a depth of 18 feet. A radon mitigation system is operating in the new visitor center.
Groundwater Ingestion	De Minimis	There are no water wells present at this site. Drinking water is supplied from a spring 750 feet up-gradient of the visitor center. Depth to groundwater is estimated to be 50 feet.
Surface Water Ingestion	Pathway Incomplete	There are no surface water bodies within ½ mile of this site. Residual contamination is present below 18 feet, and not likely to migrate to surface water.
Wild Foods Ingestion	Pathway Incomplete	Contaminated soil has been removed to a depth of 18 feet.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminated soil has been removed to a depth of 18 feet.

1,000-gallon diesel UST at former generator shed

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contaminated soil has been removed to a depth of 6 feet.
Sub-Surface Soil Contact	De Minimis	Contaminated soil has been removed to a depth of 6 feet. Remaining concentrations are below ADEC's ingestion cleanup level.
Inhalation – Outdoor Air	De Minimis	Contaminated soil has been removed to a depth of 6 feet. Remaining concentrations are below ADEC's inhalation cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no buildings present at this source area.

Groundwater Ingestion	De Minimis	There are no water wells present at this site. Drinking water is supplied from a spring 750 feet up-gradient of the visitor center. Depth to groundwater is estimated to be 50 feet.
Surface Water Ingestion	Pathway Incomplete	There are no surface water bodies within ½ mile of this site. Residual contamination is present below 6 feet, and not likely to migrate to surface water.
Wild Foods Ingestion	Pathway Incomplete	Contaminated soil has been removed to a depth of 6 feet.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminated soil has been removed to a depth of 6 feet.

Notes: "De-minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume 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

The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department's database.

Although a Corrective Action Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

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 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 feel free to contact the ADEC project manager, Melody Debenham, at melody.debenham@alaska.gov or (907) 451-5175.

Approved By,

Fred Vreeman
Environmental Manager

Recommended By

Melody Debenham
Environmental Program Specialist

Enclosures: Site Plan

PARKING LOT

4.0%

2.0%

2.5%

2.75%

NEW VISITOR CENTER BUILDING FOOTPRINT (SOLID BLUE LINE)

OLD VISITOR CENTER FOOTPRINT (GREEN DASHED LINE)

APPROX. LIMITS OF 2006 SOIL EXCAVATION

DP1-62006

DP2-62006

DP3-62006

DP4-62006

DP5-62006

DP6-62006

LOCATION OF FORMER UST NO. 9830-029

LOCATION OF FORMER TANK NO. 9830-034

FORMER GENERATOR BUILDING

794
USCGS-EIELSON

597
BC-RP-USCGS

10 0 10 20 30
SCALE OF FEET

DESIGNED: HEUBNER	SUB SHEET NO. C1	TITLE OF SHEET: CONTAMINATED SITE PLAN EIELSON VISITOR CENTER DENALI NATIONAL PARK & PRES.	DRAWING NO. 184 / 80,253
DRAWN: HEUBNER			PKG. NO. — — —
TECH. REVIEW			SHEET 1 OF 1
DATE: 2/08			