



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, AK 99709-3643
Phone: 907-451-2143
Fax: 907-451-2155
www.dec.alaska.gov

File: 2228.38.001

June 25, 2020

Dave Hanneman
Federal Aviation Administration
Environmental Section
AJW-W15E, FAA
222 W. 7th Ave, Box 14
Anchorage, AK 99513-7587

Re: Decision Document: FAA Strawberry Point
Cleanup Complete Determination for Five of Eight Areas of Concern

Dear Mr. Hanneman:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the former FAA Strawberry Point facility on Hinchinbrook Island near Cordova, AK. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site for the five Areas of Concern (AOCs) described in this letter 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.

To date, three AOCs (Generator/Shop Bldg, Davis Property and Pipeline Station 17 + 23) are not eligible for a cleanup determination. The Generator/Shop Bldg site is associated with File No. 2228.38.001/Hazard ID 22980. The other two AOCs are associated with File No. 2228.38.001/Hazard ID 1543. These File Nos. and Hazard IDs will retain their status as "Active" in the ADEC Contaminated Sites database until all AOCs are eligible to receive a Cleanup Complete determination.

This Cleanup Complete determination is based on the administrative record for FAA – ND Beacon Strawberry Point, 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:

FAA – ND Beacon Strawberry Point
Cordova C-5, T017S, R005W, Section 16
Northeast Hinchinbrook Island
Cordova, AK 99574

Name and Mailing Address of Contact Party:

Dave Hanneman
Federal Aviation Administration
Environmental Section
AJW-W15E, FAA
222 W. 7th Ave, Box 14
Anchorage, AK 99513-7587

DEC Site Identifiers:
 File No.: 2228.38.001
 Hazard ID.: 22980

Regulatory Authority for Determination:
 18 AAC 75

Site Description and Background

In 1946, the Civil Aeronautics Administration, the federal agency predecessor to the FAA, leased land from the U.S. Forest Service and established the Strawberry Point Station as part of a network of air navigation stations. In the late 1950s portions of Hinchinbrook Island near the Strawberry Point Station were selected by the State of Alaska under the Statehood Acts and later in the 1970s additional areas including the Strawberry Point Station site were selected by Eyak Native Corporations under the Alaska Native Claims Settlement Act. The facilities have not been permanently staffed since 1971 and no FAA structures remain on site. The site contained 2 8000 gallon above ground storage tanks (ASTs), one 1000 gallon underground storage tank (UST), one 500 gallon UST, and extensive above ground piping to distribute diesel fuel throughout the site. These tanks and appurtenances were removed in 2001. Widespread erosion has occurred along the shoreline of Hinchinbrook Island and threatens to erode portions of or the entirety of the easternmost AOCs. Soils consist of marine beach and aeolian sands, with the groundwater table sitting between 5 to 15 feet below ground surface (bgs).

Five AOCs are eligible for a cleanup complete determination, and are described below in applicable sections of this letter. The AOCs are: Former Dump; VHF Site; Orca Oil; North of 17+23; and Northernmost Site.

Contaminants of Concern

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

- Diesel Range Organics (DRO)

Cleanup Levels

The migration to groundwater soil cleanup levels established in 18 AAC 75.341, Table B2, and the groundwater cleanup levels established in 18 AAC 75.345, Table C apply at this site for the contaminants listed below. Cleanup levels have been met for all AOCs described in this letter.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (mg/L)
DRO	230	1.5

mg/kg = milligrams per kilogram
 mg/L = milligrams per liter

Characterization and Cleanup Activities

Site characterization under 18 AAC 75.335 is described below for each AOC.

Former Dump:

On the western edge of the AOC there was a former dump area containing household garbage such as paper, plastic bottles, and small appliances. The garbage in the former dump site was removed and hauled off the island in 1997 and soil samples from the bottom of the excavation were collected and analyzed for the presence of BTEX, GRO, and DRO. One sample indicated DRO contamination above migration to groundwater cleanup levels at 3 feet bgs, but groundwater samples collected in 2003 were below DEC groundwater cleanup levels for all COCs.

No contaminated soil was found at the former dump site in a 2013 remedial action. A 5 by 7 foot excavation to 5 feet below ground surface (bgs) revealed no contaminated soil. Confirmation soil sampling of the sidewalls and the base also detected no contaminants of concern above ADEC cleanup levels.

VHF Site:

The very high frequency (VHF) site building and infrastructure were demolished and removed from Strawberry Point in 2001. Soil samples were collected, and laboratory testing confirmed the presence of DRO above ADEC cleanup levels in soil 4.5 feet below ground surface at the AST cradle site. No contaminants of concern were detected above ADEC cleanup levels in groundwater in a 2003 groundwater investigation.

Approximately 55 cubic yards (cy) of contaminated soil were removed from the VHF site and transported to the contaminated soil stockpiles in 2013, which were thermally remediated in 2014 and 2015. No contaminants of concern were detected above ADEC cleanup levels following the excavation. The lead-shielded cable encountered during excavation was sampled and analyzed for polychlorinated biphenyls (PCB) and resulted in no PCB detections. Exposed cables and pipes were cut at the edge of the excavation and appropriately disposed of off-site.

Orca Oil:

The Orca Oil property lies approximately 2,000 feet north of the shop and generator buildings, and roughly 500 feet southeast of the 17+23 AOC. In 2001, a sample containing 2,680 mg/kg of DRO was collected during removal of a pipeline. An additional investigation conducted in 2003 detected DRO up to 2,200 mg/kg in subsurface soil. No contaminants of concern were detected above ADEC cleanup levels in groundwater in 2003.

Approximately 12 cy of DRO-impacted soil was removed from Orca Oil property in 2015 and thermally remediated. All confirmation samples from the excavation base, sidewalls, and clean overburden piles were below the DRO and PAH cleanup levels.

North of 17 + 23:

DRO was detected in a soil sample at 1,040 mg/kg, collected approximately 100 feet north of pipeline station 17 + 23 in 2001 during pipeline removal. DRO concentrations in soil were not reported to exceed the cleanup level in any of the samples collected in a 2003 investigation. Concentrations of DRO, GRO, and BTEX were not detected in the groundwater. Soil contamination at the site appears localized.

Approximately 12 cy of DRO-impacted soil was removed from North of 17+23 in 2015 and all confirmation samples from the excavation base, sidewalls, and clean overburden piles were below the DRO and PAH cleanup levels. The removed soil was thermally remediated in the same field season.

Northernmost Site:

DRO was detected at a concentration of 1,240 mg/kg in a soil sample collected approximately 340 feet north of pipeline station 17 + 23 in 2001. No soil or groundwater contamination was detected in additional samples collected in 2003.

Approximately 18 cy of contaminated soil was excavated from the Northernmost Site in 2013 and transported to the contaminated soil stockpiles, and thermally remediated in 2014 and 2015. Analysis of confirmation soil samples resulted in no detections of DRO and PAHs. The excavation did not reach groundwater.

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 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 at all AOC being closed in this document.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated at each individual AOC 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. Summaries of these pathway evaluations are included in Tables 2 and 3.

Table 2 – Exposure Pathway Evaluation – Former Dump Site

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	De Minimis Exposure	Contamination was removed to below the most restrictive soil cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No buildings remain on site.

Groundwater Ingestion	Pathway Incomplete	No contaminants were detected at concentrations above DEC Table C cleanup levels
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 Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological Risk Assessment has shown no unacceptable ecological risk.

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.

Table 3 – Exposure Pathway Evaluation – VHF Site, Orca Oil, North of 17+23, and Northernmost Site

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination was removed to below the most restrictive soil cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination was removed to below the most restrictive soil cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No buildings remain on site.
Groundwater Ingestion	Pathway Incomplete	No contaminants were detected at concentrations above DEC Table C cleanup levels.
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 Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological Risk Assessment has shown no unacceptable ecological risk.

ADEC Decision

Soil and groundwater contamination at these AOCs have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. These five AOCs will be considered “Cleanup Complete” on the Contaminated Sites Database, however the associated site will remain open until all AOCs have received “Cleanup Complete” determinations. This determination is 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 75.325(i). 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.
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 75.380 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, 410 Willoughby Avenue, Suite 303, 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) 451-2131, or email at tim.sharp@alaska.gov.

Sincerely,

Timothy Sharp
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit
Eric Breitenberger, DEC Environmental Program Manager
Kara Kusche, DEC Environmental Program Manager