



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: 225.38.001

July 20, 2020

Dave Hanneman
Federal Aviation Administration
Alaska Region
222 W. 7th Avenue, Box 14
Anchorage, AK 99513-7587

Re: Decision Document: FAA Lake Minchumina, Minchumina Housing Building 103, Building 104, and Building 105 Source Areas: No Further Action Determination

Dear Mr. Hanneman:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Minchumina Housing Building 103, Building 104, and Building 105 source areas at FAA Lake Minchumina site located in Lake Minchumina, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site from these source areas 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 determination only applies to the contamination from Buildings 103, 104, and 105 and does not apply to contamination left from piping, aboveground storage tanks (ASTs), utilidors, or other sources on site. The other areas of concern (AOCs) associated with the FAA Lake Minchumina site 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 Lake Minchumina, 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 Lake Minchumina
Lake Minchumina, AK 99757

Name and Mailing Address of Contact Party:

Dave Hanneman
Federal Aviation Administration
Alaska Region
222 W. 7th Avenue, Box 14
Anchorage, AK 99513-7587

DEC Site Identifiers:

File No.: 225.38.001

Hazard ID.: 1924

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The FAA operated the Lake Minchumina station from 1941 until 1969. In 1941, a 4,200-foot-long runway was constructed adjacent to the lake. FAA facilities on the site originally included a nondirectional beacon (NDB) system, warehouse, standby engine/generator building (Building 600), quarters buildings (Buildings 100 through 105), school (Building 106), and laundry (Building 301). The FAA transferred the former school (Building 106) to the Iditarod Area School District, along with 0.686 acre around the building, which was then subsequently transferred to the Lake Minchumina Home Owners Association and now serves as a community center, post office, and library. Buildings 103, 104, and 105 were covered with paint containing lead and PCBs as a plasticizer. Asbestos containing materials (ACMs) were found inside as well.

Contaminants of Concern

During the site characterization and cleanup activities for this source area, samples were collected from soil and analyzed for lead and PCBs. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Lead
- Polychlorinated biphenyls (PCBs)

Cleanup Levels

The Method 2 Under 40 Inch Zone Human Health cleanup levels apply to this site. Lead and PCBs were found at over 1/10th cleanup levels established in 18 AAC 75.341 (d), Table B1 in screening samples. Migration to groundwater soil cleanup levels are not applicable for these contaminants.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
Lead and Compounds	400
Polychlorinated Biphenyls (total)	1.0

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

Characterization and cleanup activities of these source areas conducted under the regulatory authority of the Contaminated Sites Program began in 2019. These activities are described below.

Site characterization under 18 AAC 75.335 conducted in 2019 included screening soils around the perimeters of the buildings for lead and PCBs. The sampling was biased towards areas with visible paint chips and drip lines of the building. Several samples showed contamination above cleanup levels for lead. The excavation extended 5 feet from the footprint of the building and removed soil 3 to 18 inches below ground surface (bgs). Confirmation samples showed all contaminants of concern below regulatory cleanup levels.

65 cubic yards (cy) of contaminated soil were removed in total and sampled for Toxicity Characteristic Leaching Procedure (TCLP) analysis for total lead and PCBs. Results all fell below Toxic Substances Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA) levels for TCLP and PCBs. Contaminated soil was disposed of by transporting it to Colombia Ridge Landfill in Arlington, OR.

Prior to demolition of the buildings, debris was removed from inside and separated into general debris and ACM. 20-mil liner material was placed over the excavated building perimeter to prevent recontamination. Buildings were wetted and demolished in place with an excavator. Water was continually sprayed to prevent fugitive dust particles from exiting the regulated area. Air monitoring was conducted at the edges of the regulated areas, as well as on personnel working within the regulated areas. The liner used during demolition and 336 cy of non-hazardous PCB bulk product building debris were disposed of in appropriate waste streams.

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 for these source areas, ADEC 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 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 was removed from surface soil to below cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination was removed from subsurface soil to below cleanup levels.

Inhalation – Outdoor Air	Pathway Incomplete	Contaminants of concern are not volatile enough to reach outdoor air.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contaminants of concern are not volatile enough to reach indoor air, and no buildings are currently present in the area.
Groundwater Ingestion	Pathway Incomplete	Groundwater is not impacted at the site. Contaminants of concern do not have a migration to groundwater cleanup level.
Surface Water Ingestion	Pathway Incomplete	Surface water is not impacted at the site, as groundwater is not impacted to facilitate migration.
Wild and Farmed Foods Ingestion	De Minimis	The source of contamination has been removed, and contaminants present are below cleanup levels. The extent and toxicity of contaminants are minimized.
Exposure to Ecological Receptors	Pathway Incomplete	An ecoscoping form has been completed and found no unacceptable risk to the ecosystem.

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.

ADEC Decision

Soil contamination from these source areas have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. These source areas will receive a “Cleanup Complete” designation on the Contaminated Sites Database, 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 from these source areas 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 Program Manager