



THE STATE
of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental
Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 2612.38.001

October 22, 2021

Electronic Delivery Only

Lance Raymore
Federal Aviation Administration
222 W 7th Ave, #14
Anchorage, AK 99513

Re: Decision Document: FAA McGrath Building 200
Cleanup Complete Determination

Dear Mr. Raymore:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Federal Aviation Administration (FAA) McGrath Building 200. Based on the information provided to date, contaminant concentrations remaining at Building 200 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 is limited to the Building 200 area of concern (AOC); the FAA McGrath file 2612.38.001 will remain active until cleanup is completed at all AOCs.

This Cleanup Complete determination is based on the administrative record for Building 200 at the FAA McGrath Station, which is located in the ADEC office in Juneau, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

FAA McGrath Station
McGrath, Alaska
Building 200
62.956390°N, 155.595830°W

Name and Mailing Address of Contact Party:

Lance Raymore
Federal Aviation Administration
222 W 7th Ave, #14
Anchorage, AK 99513

DEC Site Identifiers:

File No.: 2612.38.001
Hazard ID.: 2120

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The McGrath FAA Station is located on the east bank of the Kuskokwim River, south of its confluence with the Takotna River, approximately 220 miles northwest of Anchorage and 270 miles southwest of Fairbanks. Building 200 (also referred to as the Commissary Building) was a part of the main facilities site at FAA McGrath when the FAA environmental program was initiated in the 1990s. A 515-gallon heating oil aboveground storage tank (AST), No. 16-B-12, located at the southwest corner of Building 200 was decommissioned on June 12, 1994.

Various facilities at FAA McGrath have changed primary use or been demolished. Since the 1990s, the Utility Building, Commissary Building 200, Hobby Shop Building, Flight Service Station, Electric Generation Power Plant, Fuel Tank Farm, and all the FAA houses located in the main facilities area have been demolished and a new FAA composite building has been constructed.

FAA McGrath also includes the very high frequency omnidirectional range tactical aircraft control site and Remote Center Air/Ground Communications Facility site located west of the north-south runway and the non-directional beacon (NDB) site located just outside and east of town. The State of Alaska owns the occupied land, except for the NDB site which is owned by FAA.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for metals, volatile organic compounds (VOC), pesticides, polychlorinated biphenyls (PCB), volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), total recoverable petroleum hydrocarbons (TRPH), diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAH). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- DRO
- Xylenes
- Naphthalene
- Fluorene
- Phenanthrene
- 2-methylnaphthalene

Cleanup Levels

The following 18 AAC 75 soil and groundwater cleanup levels apply at FAA McGrath Building 200:

- Table B1 and B2 Method Two Migration to Groundwater soil cleanup levels
- Table B1 Under 40-Inch Zone Human Health soil cleanup levels
- Table B2 Maximum Allowable Concentrations for soil
- Table C groundwater cleanup levels

The applicable cleanup levels and residual concentrations at Building 200 are summarized in Table 1, below.

Table 1 – Approved Cleanup Levels and Maximum Detected Concentrations

Contaminant	Tables B1/B2 Migration to Groundwater (mg/kg)	Table B1 Under 40" Zone Human Health (mg/kg)	Table B2 Maximum Allowable Concentration (mg/kg)	Maximum Remaining Soil Concentration (mg/kg)	Table C Groundwater (µg/L)	Maximum Remaining Groundwater Concentration (µg/L)
DRO	250	n/a	12,500	7,170	1,500	246
Phenanthrene	39	2,300	n/a	0.022	170	ND
Xylenes	1.5	57	n/a	ND	190	ND
Naphthalene	0.038	29	n/a	ND	1.7	ND
Fluorene	36	3100	n/a	ND	290	ND
2-methylnaphthalene	1.3	310	n/a	ND	36	ND

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

ND = non detect

n/a = not applicable

Characterization and Cleanup Activities

In August 1991, site work was conducted to identify and evaluate suspected releases of hazardous substances and suspected discharges of petroleum, oil, and lubricant products at FAA McGrath. A 515-gallon heating oil AST, 16-B-12, was confirmed to be on-site at Building 200. A soil sample was taken from under the AST and analyzed for metals, VOCs, pesticides, PCB, VPH, EPH, and TRPH. The analytes that exceeded the current (June 2021) 18 AAC 75 cleanup levels included arsenic, total xylene, naphthalene, fluorene, phenanthrene, 2-methylnaphthalene, VPH (as gasoline) and EPH (as diesel). The arsenic exceedance is consistent with naturally occurring background levels in the State of Alaska. Accordingly, no further evaluation of arsenic was conducted at this site.

In 1994, AST 16-B-12 was decommissioned, and a release investigation was conducted. Three borings were advanced, one of which was completed as a monitoring well but never sampled. Remedial action removed approximately 30 cubic yards of soil to a depth of 7 feet below ground surface (bgs). The excavated hydrocarbon impacted soils were treated in a lined biocell at the FAA McGrath site. Confirmation soil samples from the excavation sidewalls and floor were collected and analyzed for petroleum compounds. One sample taken along the north sidewall at 7 feet bgs had a concentration of 5,000 mg/kg for DRO, which was the only sample reported as exceeding an ADEC cleanup level. Excavation at this time was limited by proximity to underground utilities and the building foundation.

Field work for the next project at FAA McGrath was divided into two phases. Phase 1 was the principal investigation performed during the 2011 field season. Phase 2 consisted of additional groundwater monitoring and sampling in 2012. Eleven UVOST probes and seven soil borings were advanced at Building 200, and seven soil samples were collected for laboratory analysis of DRO, RRO, GRO, BTEX, and PAHs. DRO concentrations in soil were greater than ADEC Method Two, Under 40-Inch Zone, Migration to Groundwater cleanup levels in two of the seven soil samples analyzed (2,040 and 7,170 mg/kg). Groundwater samples taken in 2011 and 2012 were analyzed for DRO, RRO, GRO, BTEX and PAHs. No analytes were detected at concentrations greater than the ADEC 18 AAC 75 Table C groundwater cleanup levels.

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.

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	De-Minimis Exposure	Contamination in sub-surface soil (2 to 15 ft below ground surface) is below ingestion and human health levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination in soil is below inhalation and human health cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contamination in soil is below inhalation and human health cleanup levels and no occupied buildings are on site within 30 feet.
Groundwater Ingestion	De-Minimis Exposure	Groundwater sampling events have demonstrated that contamination in groundwater is below cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Contaminants are not expected to migrate to surface water.
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	There are no complete exposure pathways to ecological receptors.

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 at Building 200 has been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. No exceedances were reported in groundwater at MW-101. Building 200 will receive a “Cleanup Complete” designation on the Contaminated Sites Database¹, subject to the following standard conditions. The FAA McGrath site will remain open until all areas of concern tracked under this file number have reached cleanup complete status.

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 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, 610 University Ave, Fairbanks, AK 99709 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.

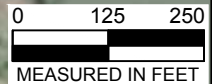
If you have questions about this closure decision, please feel free to contact me at (907) 465-5237, or email at sarah.mutter@alaska.gov.

Sincerely,

Sarah Mutter
Project Manager

Enclosures: Figure 1: Primary Station Map
Figure 2: Building 200 Analytical Soil Results and Extent of Contamination

cc: Spill Prevention and Response, Cost Recovery Unit
Nick Waldo, ADEC



Notes:
 1. The survey was conducted 08-23-2011 through 08-26-2011 by a Registered Land Surveyor from Mammoth Consulting of Anchorage, Alaska.
 2. All locations are approximate.
 3. Aerial photography provided by Aerometric [6-10-2009].

Record of Decision for 10 Sites
 FAA Station McGrath, Alaska

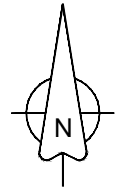
Ahtna
 Engineering Services, LLC

Figure 1. FAA McGrath Primary Station Map. Figure collected from Record of Decision, July 2016 provided by Ahtna Engineering Services, LLC. Modified by ADEC.

Primary Station Map

Project Number: 20125.014	Figure Number: 1-2
Date: 05.03.2016	
Drawn By: R.F.	

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B100					B103				
Depth (ft bgs)	DRO (mg/kg)	RRO (mg/kg)	GRO (mg/kg)	BTEX (mg/kg)	Depth (ft bgs)	DRO (mg/kg)	RRO (mg/kg)	GRO (mg/kg)	BTEX (mg/kg)
4.0 - 8.0	31.4	82.1	ND	ND	8.0 - 12.0	ND	ND	ND	ND
B101/MW 101					B104				
Depth (ft bgs)	DRO (mg/kg)	RRO (mg/kg)	GRO (mg/kg)	BTEX (mg/kg)	Depth (ft bgs)	DRO (mg/kg)	RRO (mg/kg)	GRO (mg/kg)	BTEX (mg/kg)
4.0 - 6.0	7170	ND	ND	ND	4.0 - 6.0	2040	ND	ND	ND
8.0 - 10.0	ND	ND	12	ND	8.0 - 10.0	ND	ND	13.2	ND
B102									
Depth (ft bgs)	DRO (mg/kg)	RRO (mg/kg)	GRO (mg/kg)	BTEX (mg/kg)					
12.0 - 16.0	ND	ND	ND	ND					

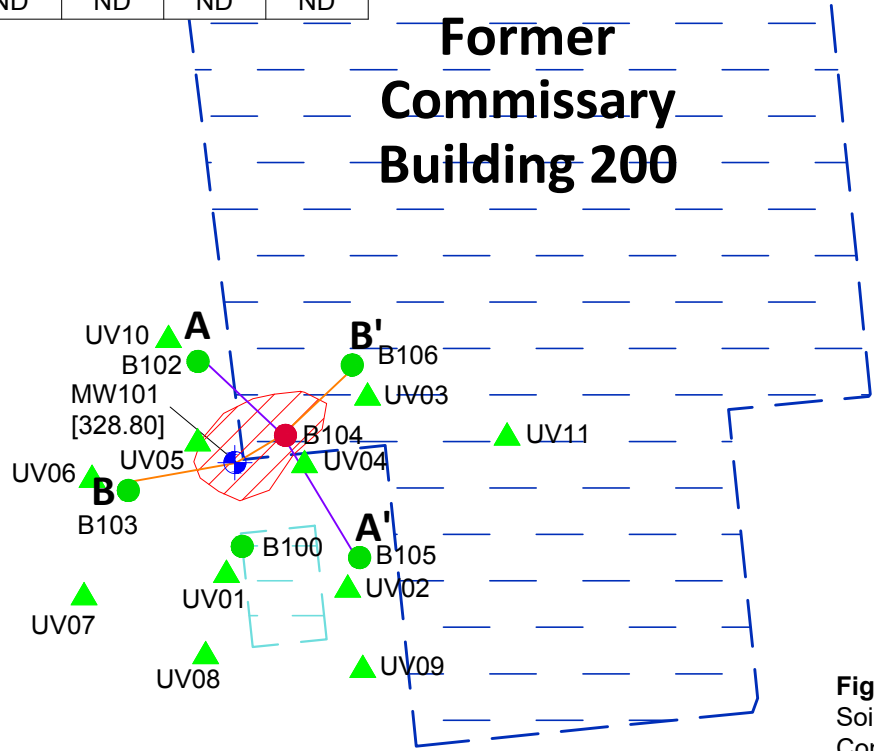
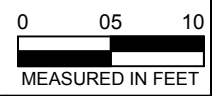


Figure 2. FAA McGrath Analytical Soil Results and Extent of Contamination, Figure collected from Record of Decision, July 2016 provided by Ahtna Engineering Services, LLC. Modified by ADEC.

- Notes:**
1. The survey was conducted 08-23-2011 through 08-26-2011 by a Registered Land Surveyor from Mammoth Consulting of Anchorage, Alaska.
 2. All locations are approximate.
 3. Roads, buildings, fences and tanks were provided by the FAA from the AutoCAD file "mcg040000" and 2011 field observations.
 4. Yellow shaded results indicate that the value exceeds ADEC Method 2, Under 40-Inch Zone, Migration to Groundwater cleanup levels.

Key:	
[328.80]	Groundwater elevation measured on 08-30-2011 in feet (NAVD88)
DRO	Diesel Range Organics
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
FAA	Federal Aviation Administration
feet bgs	Feet below ground surface
GRO	Gasoline Range Organics
mg/kg	Milligrams per Kilogram
ND	Non-detect
RRO	Residual Range Organics
UV	UVOST [Laser Induced Fluorescence]
● B1	2011 Soil sample location [DRO ≥ 250 mg/kg]
● B1	2011 Soil sample location [DRO < 250 mg/kg]
⊕ MW 01	2011 Monitoring Well location
▲	UVOST Probe location [DRO ≥ 250 mg/kg and/or ≥ 3.5% fluorescence]
▲	UVOST Probe location [DRO < 250 mg/kg and/or < 3.5% fluorescence]
▭ (red hatched)	Approximate area of soil contamination [DRO ≥ 250 mg/kg]
— (red)	Cross Section A Baseline
— (blue)	Cross Section B Baseline
□ (dashed)	Former Storage Tank
□ (dotted)	Former Structure



Record of Decision for 10 Sites
FAA Station McGrath, Alaska



**2011 Release Investigation
Former Commissary Building 200, Analytical Soil Results
and Extent of Contamination**

Project Number: 20125.014	Figure Number:
Date: 05.04.2016	7-1
Drawn By: R.F.	

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