



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1529.38.025
February 21, 2017

Via electronic mail

Mr. Jon Schleder
FAA Alaska Region
222 W. 7th Avenue, Box 14
Anchorage, Alaska 99513

Re: Decision Document: FAA Wrangell Airport RCO Building
Cleanup Complete Determination

Dear Mr. Schleder:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the FAA Wrangell Airport RCO Building. 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 new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the FAA Wrangell RCO Building which is located in the DEC 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 Wrangell Airport RCO Building
Wrangell Airport
Wrangell, Alaska 99929
Latitude 56.484507 Longitude -132.361924

Name and Mailing Address of Contact Party:

Mr. Jon Schleder
FAA Alaska Region
222 W. 7th Avenue, Box 14
Anchorage, AK 99513

DEC Site Identifiers:

File No.: 1529.38.025
Hazard ID#: 26366

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

Wrangell is located on the northwest tip of Wrangell Island, 155 miles south of Juneau and 89 miles northwest of Ketchikan. It is near the mouth of the Stikine River, a historic trade route to the Canadian Interior. The Wrangell Airport is located on the north end of Wrangell Island. The Remote Communication Option (RCO) Building is located on the north side of the aircraft runway within the airport secure area.

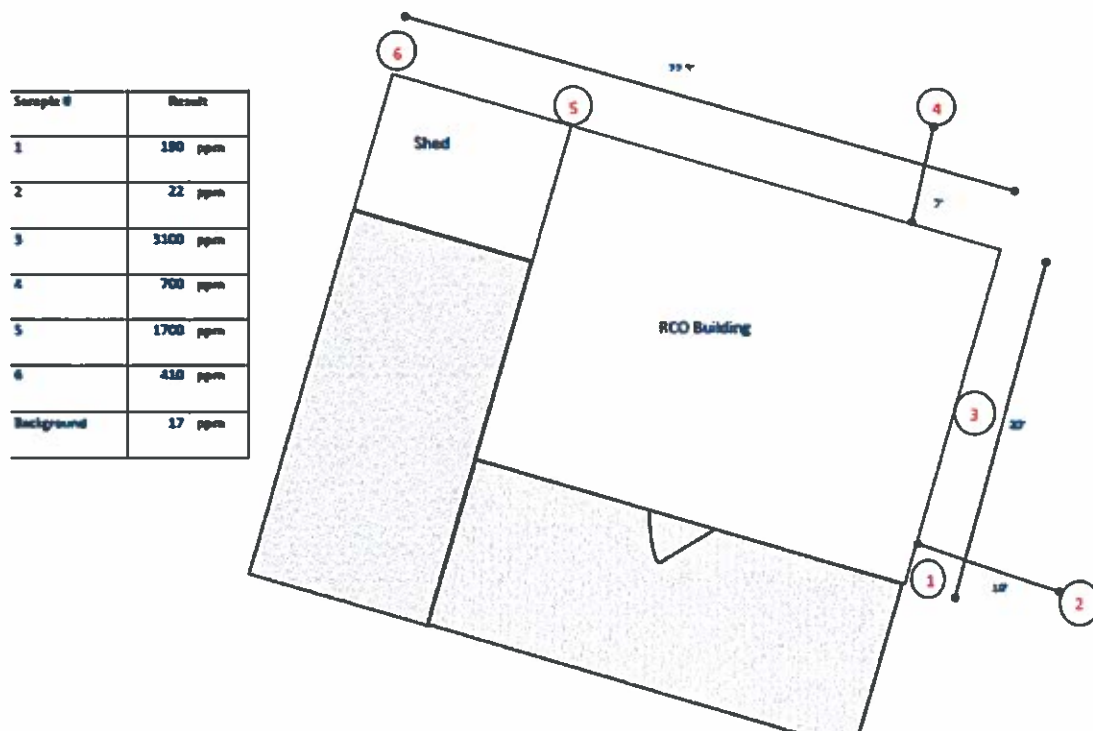
The 400 square-foot RCO Building was constructed in 1953 of wood on concrete footings. The roof and exterior siding are metal that was painted with lead-based paint. The base of the building at the foundation is paved on the south and west sides. Soil on the north and east sides is exposed and was littered with paint chips from the exterior siding.

Site Photograph 1&2 visible lead paint chips in soil and the RCO Building, Wrangell Airport



Prior to contacting DEC, FAA collected exploratory samples in 2015 from soil along the exterior base of the building foundation. The effort demonstrated that lead concentrations as high as 3,100 milligrams per kilogram (mg/kg) were present in areas where paint chips were observed in the soil up to one half-foot depth below ground surface (BGS) and extending up to six feet laterally from the base of the building.

Site Figure 1 Preliminary analytical sampling locations



Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and were analyzed for total lead. Based on these analyses, the following contaminant was detected in the samples above the applicable cleanup levels and is considered a Contaminants of Concern at this site:

- Total lead

Cleanup Levels

Title 18 Alaska Administrative Code (AAC) 75.340 authorizes DEC to set soil cleanup levels for this site. DEC has developed cleanup regulations for oil and other hazardous substances called the “site cleanup rules” under 18 AAC 75.325- 18 AAC 75.390. As specified in these rules, the designated land use for a site is residential unless otherwise approved by the Department. Therefore, the most stringent levels of all applicable pathways under Method Two soil cleanup levels for the over 40-inch precipitations zone, established in 18 AAC 75.341(c), Table B1 apply to the site.

Table 1. Cleanup levels in milligrams/kilogram (mg/kg)

| Chemical | Soil |
|----------|-----------|
| Lead | 400 mg/kg |

Characterization and Cleanup Activities

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began in September, 2015. These activities are described below.

Saybr Contractors, Inc. (Saybr) performed the building demolition and the soil sampling was conducted by Brice Environmental Services Corporation (Brice) for the FAA in accordance with a work plan that DEC approved by letter dated September 30, 2015. Removal Action (RA) activities were performed at the RCO Building from March 14-18, 2016 and on April 2, 2016. Paint chips were visible on the ground surface and mixed in with soil in some areas. Brice guided the removal by excavation of lead-contaminated soil by visible paint chips and by field screening sample results using a Niton XLp 303 portable X-ray Fluorescence Spectrometer (XRF).

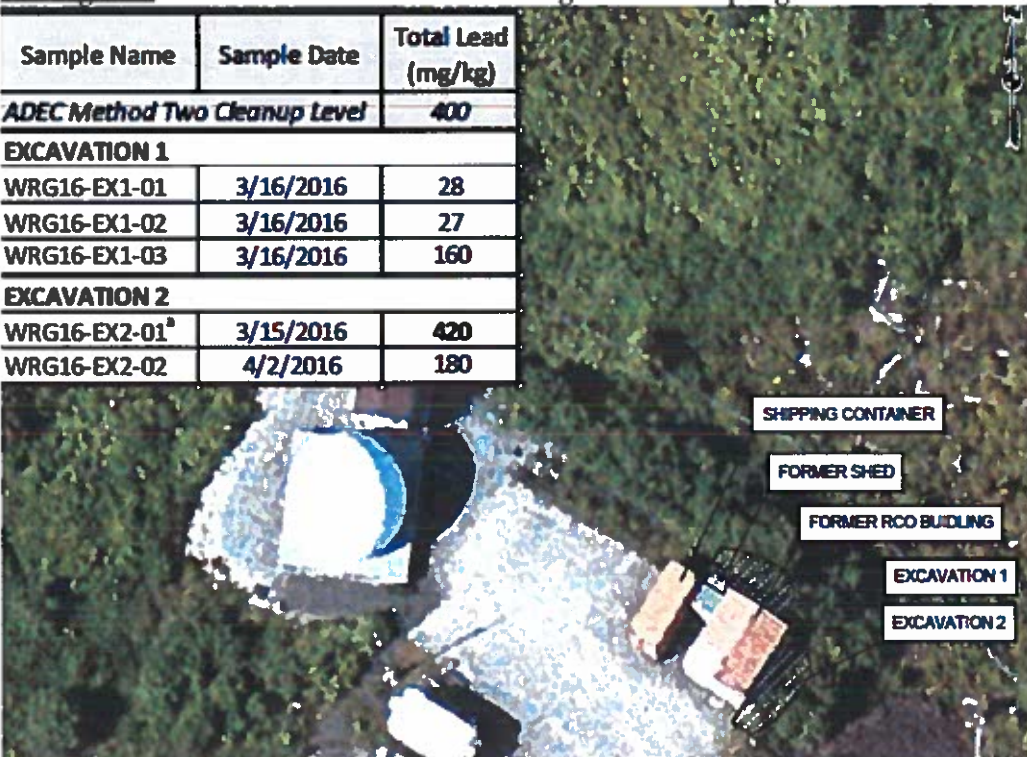
Site Photographs 3&4 Soil screening sample locations on northeast and southeast sides of RCO Building



The lead contaminated soil was removed in two excavations by transferring soil into 1-cubic yards (CY) super sacks. Excavation 1 was located on the northeast side of the RCO Building, and Excavation 2 was located on the southeast side of the RCO Building. Approximately 3 CY of soil were removed from the Excavation 1, which measured eight by 24 feet. Approximately 2 CY of lead-impacted soil were removed from Excavation 2 during the first mobilization. A second mobilization was required to remove an additional 1 CY of lead contaminated soil and, following removal of the RCO Building foundation, 1 CY of soil was removed around the edge of the former foundation where paint chips were visible in order to complete overall site cleanup.

Site Figure 2 excavation areas at RCO building and MI sampling locations with analytical results

| Sample Name | Sample Date | Total Lead (mg/kg) |
|--------------------------------------|-------------|--------------------|
| ADEC Method Two Cleanup Level | | 400 |
| EXCAVATION 1 | | |
| WRG16-EX1-01 | 3/16/2016 | 28 |
| WRG16-EX1-02 | 3/16/2016 | 27 |
| WRG16-EX1-03 | 3/16/2016 | 160 |
| EXCAVATION 2 | | |
| WRG16-EX2-01 ^a | 3/15/2016 | 420 |
| WRG16-EX2-02 | 4/2/2016 | 180 |



Brice collected confirmation soil samples from the limits of the excavations using Multi-Increment (MI) sampling methodology. Each excavation was divided into a decision unit for MI sampling. One confirmation sample and a triplicate set were collected using MI sampling techniques from Excavation 1. Soil was collected from each subsample point from depths between zero and six inches BGS. The primary, duplicate, and triplicate samples were reported containing concentrations of 28 milligrams per kilogram (mg/kg), 27 mg/kg, and 160 mg/kg total lead, respectively. All concentrations were less than the soil cleanup level.

One triplicate set was collected for the three confirmation soil samples taken at the limits of excavation, meeting the required frequency of 10 percent. The triplicate was submitted to the laboratory for analysis of total lead, representative of the MI methodology used to analyze project samples. The RSD and 95% UCL were calculated for the triplicate set. The RSD of 87% exceeded the 50% criteria for the duplicate pair collected. The result is likely due to sample or subsampling variability due to sample heterogeneity. The 95% UCL was 177 mg/kg.

One confirmation sample was collected from the limits of Excavation 2 using MI sampling techniques. Soil was collected from each subsample point at a depth of between zero and six inches BGS. The MI sample was reported containing a concentration of 420 mg/kg total lead, exceeding the soil cleanup level. During a second mobilization in April, Brice removed one CY of soil from the southeast side of the former RCO Building and removed one cubic yard of soil around the edge of the former foundation where paint chips were visible, in order to complete the RA. Brice then collected a second confirmation MI sample and the sample was reported containing a concentration of 180 mg/kg total lead, less than the cleanup level. The final dimensions of Excavation 2 were five by 22 feet. The depth of the excavations generally ranged from between zero and seven inches BGS.

Composite waste characterization soil samples were collected from the materials removed from the excavations and analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead in order to determine whether waste qualified as Resource Conservation and Recovery Act (RCRA)-regulated. All waste characterization samples were less than the RCRA-regulated waste criteria of five milligrams per liter (mg/L), with TCLP lead concentrations ranging from 0.0033 to 0.55 mg/L.

Site Photograph 2 RCO Building demolition site following the RA



Table 1 displays the highest levels detected in soil remaining at the site, the sample depth, and the Method Two (M2) Migration to Groundwater (MTG) cleanup levels. Levels shown in bold are above the applicable cleanup levels and represent the contaminant(s) of concern.

Table 2 the greatest levels of analytes detected in remaining soil at the site.

| Compounds of concern | Greatest level in soil mg/kg | Sample name and depth below the surface | M2 MTG Cleanup Levels mg/kg |
|----------------------|------------------------------|---|-----------------------------|
| Total lead | 180 | WRG16-EX2-02 | 400 |

mg/kg= milligrams per kilogram

The containerized soil was covered with liner and staged at the site pending analytical results of waste characterization samples. FAA contracted with Elm Solutions to review analytical results, prepare manifests, and coordinate the transportation and disposal of the lead contaminated soil. Elm Solutions labeled the super sacks and placed in a shipping container for transport and disposal. FAA submitted the disposal documents from Chemical Waste Management to DEC and they were subsequently approved by DEC by electronic message dated October 28, 2016.

Cumulative Risk Evaluation

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 3.

Table 3 – Exposure Pathway Evaluation

| Pathway | Result | Explanation |
|---|---------------------|---|
| Surface Soil Contact | De Minimis Exposure | Lead contamination is present in surface soil at concentrations below the cleanup level for residential land use. |
| Sub-Surface Soil Contact | Pathway Incomplete | Contamination is not present in the sub-surface. |
| Inhalation – Outdoor Air | Pathway Incomplete | Contamination is not volatile |
| Inhalation – Indoor Air (vapor intrusion) | Pathway Incomplete | Contaminant of concern is not volatile |
| Groundwater Ingestion | Pathway Incomplete | Groundwater was not encountered and was not investigated for contamination. |
| 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 | There are no aquatic or terrestrial receptors in the airport secure fenced area. |

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 DEC’s judgment contamination has no potential to contact receptors. “Exposure Controlled” means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

February 21, 2017

DEC Decision

Soil contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site 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 off-site requires ADEC 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.
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 DEC 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 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, 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) 465-5210, or email at bruce.wanstall@alaska.gov.

Sincerely,



Bruce Wanstall
Remedial Project Manager

cc: Sally Schlichting, Unit Manager, Contaminated Sites Program
DEC Spill Prevention and Response, Cost Recovery Unit

