THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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File No: 2538.26.004

October 7, 2014

Jennifer Micolichek
Alaska Department of Transportation & Public Facilities (ADOT&PF)
P.O. Box 196900
MS-2525
Anchorage, AK 99519

Re: Decision Document: ADOT&PF Cold Bay Airport Maintenance Facility UST #1
Corrective Action Complete Determination – Institutional Controls

Dear Ms. Micolichek;

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the ADOT&PF Cold Bay Airport Maintenance Facility UST #1 site, located generally north-northeast of the Cold Bay Airport, in Alaska. This decision letter memorializes the site history, cleanup actions, and specific conditions required to effectively manage remaining contamination. No further remedial action will be required as long as compliance with these conditions is maintained.

Site Name and Location:
ADOT&PF Cold Bay Airport
Maintenance Facility UST #1
Latitude: 55.206017
Longitude: -162.718818
Cold Bay, Alaska

Name and Mailing Address of Contact Party:
Jennifer Micolichek
ADOT&PF
P.O. Box 196900
MS-2525
Anchorage, AK 99519

DEC Site Identifiers:
File No: 2538.26.004
Hazard ID: 26184

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

Site Description and Background

This site is located roughly 0.5 mile north-northeast from the intersection of the north-south oriented and west-east oriented landing strips at the Cold Bay Airport. The area surrounding the site is generally commercial in nature. There are no private drinking water wells in Cold Bay. All drinking water is obtained from a community water treatment plant, which is located over 1,600 feet from this site. Groundwater in Cold Bay is estimated between 40 to 80 feet below ground surface (BGS).

On November 15, 2011, ADOT&PF personnel began excavating contaminated soil from a release of heating oil from an above ground storage tank (AST) located on the south side of the ADOT&PF Cold Bay airport maintenance building (See ADEC file number 2538.38.022 for additional information regarding the release from the AST at this location). During excavation activities, a regulated underground storage tank (UST) was discovered just northeast of the AST. The ADOT&PF was unaware of the UST and its purpose; although, it was anticipated that UST was utilized as an oil/water separator. Approximately 20 cubic yards of contaminated material were excavated, and later land farmed northeast of the airport. It was determined during the course of the excavation that the extent of contamination was greater than anticipated and the excavation was filled with clean fill. It was subsequently determined that the UST would be regulated under the UST program and is registered as a 1,000-gallon used oil tank with a tank identification number 1.

Contaminants of Concern

The following contaminants of concern, those above ADEC cleanup levels, were identified during the course of the site investigations summarized in the "Characterization and Cleanup Activities" section of this decision letter.

- Gasoline Range Organics (GRO)
- Diesel Range Organics (DRO)
- 1,2,3-trichloropropane

Cleanup Levels

Concentrations of GRO, DRO, and 1,2,3-trichloropropane remain in soil above the Method 2 migration to groundwater (MTG) cleanup levels for the under 40-inch precipitation zone established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341(d) Table B2.

Table 1 – ADEC Cleanup Levels

Contaminant	Soil – MTG (mg/kg)	Soil – Ingestion (mg/kg)	Soil – Inhalation (mg/kg)
DRO	300	10,250	12,500
GRO	250	1,400	1,400
1,2,3-trichloropropane	0.00053	1.2	0.17

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

A Corrective Action/UST Characterization Report, dated September 2012, documented excavation activities at this site. Field activities commenced from June 11 through 14, 2012. The top of the UST was uncovered at roughly 3.5 feet BGS, and a 2.5-inch diameter steel pipe that extended from the maintenance shop floor drain to the UST was discovered. Holes were discovered in the bottom of

the UST, indicating that the tank was utilized to facilitate the drainage of fluids into the subsurface soils and retain solids in the tank (similar to a septic crib). A total of 35 tons of impacted soil were removed during the UST removal activities, and were stockpiled in a lined storage cell. Because the soil beneath the airport maintenance building was inaccessible, it could not be removed or characterized. Prior to backfilling with clean fill, the 2.5-inch diameter supply pipe was capped with concrete and a "biovent piping arrangement" was placed at the base of the UST excavation. The stockpiled soils were disposed of offsite in August of 2014 by Columbia Ridge Landfill.

Five confirmation soil samples were collected during the course of the UST removal and were analyzed for GRO, DRO, residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), Resource Conservation and Recovery Act (RCRA) metals, volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs). Analytical results revealed that GRO, DRO, and 1,2,3-trichloropropane remain at the base of the excavation above MTG cleanup levels, but below the ingestion cleanup levels. (See Table 2 for remaining concentrations.) Except for 1,2,3-trichloropropane, contamination also remains in the sub-surface soils below inhalation cleanup levels. 1,2,3-trichloroprope was present at a concentration of 0.171, which slightly exceeds the ADEC cleanup criterion of 0.17. However, other soil samples that were collected in the surrounding area did not exhibit any concentrations of 1,2,3-trichloropropane. For this reason, exposure to 1,2,3-trichloropropane via the inhalation pathway is considered de-minimis.

Groundwater was not encountered during excavation activities and groundwater is estimated between 40 and 80 feet BGS. Although some soil samples exceeded the MTG cleanup levels, a pathway analysis revealed that drinking water is not obtained from private wells in Cold Bay; rather from a community water treatment facility located over 1,600 feet from this site. It was reported to ADEC that when construction of the treatment facility was complete, all private wells were decommissioned and capped so that no one could use the old wells. New wells may not be installed without ADEC approval.

Table 2 – Remaining Contaminant Concentrations

Contaminant	Concentration Remaining Onsite (mg/kg)
DRO	3,230
GRO	800
1,2,3-trichloropropane	0.171

Notes to Table 2: mg/kg = milligrams per kilogram
ND = not detected above laboratory detection limits

Cumulative Risk Evaluation

Pursuant to 18 AAC 78.600(d), 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 do not pose a cumulative human health risk.

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 3.

Table 3 – 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 remains in the sub-surface, but is below direct contact cleanup levels. Note: contaminated soil beneath the airport maintenance facility was not characterized. When the building is removed and/or the soil becomes accessible, the soil must be evaluated and contamination addressed in accordance with an ADEC approved work plan.
Inhalation – Outdoor Air	De-Minimis Exposure	Except for 1,2,3-trichloropropane, contamination remains in the sub-surface soils below inhalation cleanup levels. However, due to concentration and volume of 1,2,3-trichloropropane, exposure risk is considered de-minimis.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Except for 1,2,3-trichloropropane, contamination remains in the sub-surface soils below inhalation cleanup levels. However, due to concentration and volume of 1,2,3-trichloropropane, exposure risk is considered de-minimis.
Groundwater Ingestion	Pathway Incomplete	Contamination remains above the soil MTG cleanup levels. However, there are no private drinking water wells in Cold Bay; drinking water is obtained from the community water treatment plant located over 1,600 feet from this site, and GW is estimated to be between 40 - 80 feet BGS.
Surface Water Ingestion	Pathway Incomplete	Surface water is not contaminated and is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	This site is not located in an area that would be reasonably used for foraging activities.
Exposure to Ecological Receptors	Pathway Incomplete	No aquatic or terrestrial routes are present.

Notes to Table 2: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be 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. "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

Petroleum contamination remains on-site in soil above ADEC cleanup levels; however ADEC has determined there is no unacceptable risk to human health or the environment as long as the contamination is properly managed in accordance with the conditions outlined below.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use changes, these management conditions may not be protective and ADEC may require additional remediation and revised conditions. Therefore the ADOT&PF shall report to ADEC every five years to document land use, or report as soon as the ADOT&PF becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov.

2. Installation of groundwater wells requires ADEC approval.

3. Sub-surface soil contamination is located beneath the shop building. When the building is removed and/or the soil becomes accessible, the soil must be evaluated and contamination addressed in accordance with an ADEC approved work plan.

4. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 78.600(h). 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.)

5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. Institutional controls will be removed in the future if documentation can be provided that shows cleanup levels have been met. Management conditions 4 and 5 remain in effect after ICs are removed.

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 99811-1800, 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 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.

Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please feel free to contact me at (907) 269-7691.

Sincerely,

Joshua Barsis
Environmental Program Specialist

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Attachment B: Site Figure

cc: RFA via email at dec.spar.cr@alaska.gov
Kamie Willis, DOL (via email)

*Attachment A: Cleanup Complete-ICs Agreement and Signature Page**

Jennifer Micolichek (or authorized representative) of the ADOT&PF agrees to the terms and conditions of this Corrective Action Complete Determination, as stated in decision letter for the ***ADOT&PF Cold Bay Airport Maintenance Facility UST #1*** site, dated **October 7, 2014.** Failure to comply with the terms and conditions of the determination may result in ADEC reopening this site and requiring further remedial action in accordance with18 AAC 18 AAC 78.276(f).

Jennifer L Micolichek, Environmental Impact Analyst — 10-7-14

Signature of Authorized Representative, Title — Date
ADOT&PF

Jennifer L. Micolichek, Environmental Impact Analyst

Printed Name of Authorized Representative, Title
ADOT&PF

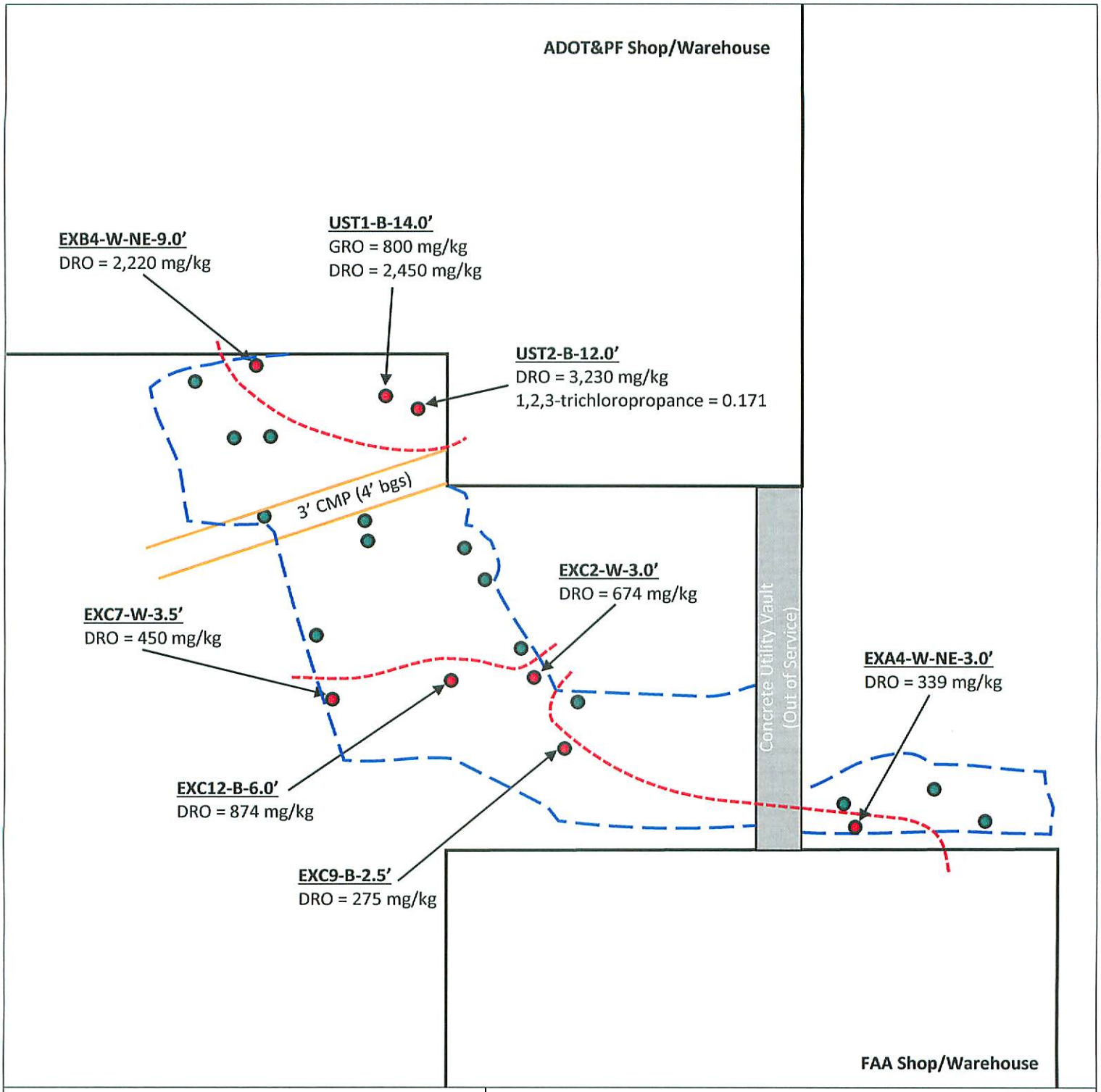
Note to Responsible Person (RP):
After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 30 days of receipt of this letter.

For Internal Use Only

ADEC File No. 2538.26.004
Hazard ID: 26184
ADEC Project Manager: Joshua Barsis

***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan *and* Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager.



LEGEND

- = Approximate location of soil sample; above ADEC cleanup criteria.
- = Approximate location of soil sample; below ADEC cleanup criteria.
- = Approximate boundary of excavation.
- = Estimated contaminant plume lines.
- = Approximate location of structure.

0 — 20

Approximate Scale in Feet

NORTH

ADOT&PF Cold Bay Airport Maintenance Facility
Cold Bay, Alaska
ADEC File Number: 2538.26.004
ADEC Hazard ID: 26184

Attachment B **September 2014**	**Alaska Department of Environmental Conservation**