

STATE OF ALASKA

DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

610 University Ave
Fairbanks, AK 99709
PHONE: (907) 451-2127
FAX: (907) 451-5105
www.dec.state.ak.us

File: 102.26.086

June 14, 2011
Certified Mail Return Receipt Requested
Article No: 7010 2780 0002 7126 8467

Jackson Fox
City of Fairbanks – Public Works Department
800 Cushman Street
Fairbanks, AK 99701

Re: Decision Document; FMUS - Public Works
Corrective Action Complete with Institutional Controls Determination

Dear Mr. Fox:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program (CSP) has completed a review of the environmental records associated with the FMUS - Public Works located in Fairbanks, Alaska. Based on the information provided to date, the ADEC has 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 as long as the site is in compliance with established institutional controls (ICs).

This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Corrective Action Complete with ICs Determination.

Introduction

Site Name and Location:

FMUS - Public Works
2121 Peger Road
Fairbanks, AK 99615

Name and Mailing Address of Contact Party:

Michael Schmetzer, Director
City of Fairbanks – Public Works Department
800 Cushman Street
Fairbanks, AK 99701

ADEC Site Identifiers:

ADEC Reckey: 1991310016601

File: 102.26.086

Hazard ID: 24262

Regulatory authority under which the site is being cleaned up:

18 AAC 75 and 18 AAC 78

Background

This site is in an industrial area south of 19th Avenue and east of Peger Road. Petroleum impacted soil was detected above cleanup levels after a 2,000-gallon waste oil underground storage tank (UST) failed a tightness test in 1991. The site was investigated further, for petroleum impacts, during piping repairs and the removal of a 10,000-gallon unleaded gasoline UST in 1999. The waste oil tank was closed in place in 2000.

Contaminants of Concern

During the investigations at this site, soil and groundwater samples were analyzed for one or more of the following: gasoline range organics (GRO); diesel range organics (DRO); residual range organics (RRO); benzene, toluene, ethylbenzene, and xylenes (BTEX); metals and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses and knowledge of the source area, the following contaminants of concern were identified:

- Gasoline Range Organics (GRO)
- Benzene
- Toluene
- Ethylbenzene

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater (MTG).

<u>Contaminant</u>	<u>MTG Cleanup Level (mg/kg)</u>
GRO	300
Benzene	0.025
Toluene	6.5
Ethylbenzene	6.9

The default groundwater cleanup levels for this site are established in 18 AAC 75.345, Table C Groundwater Cleanup Levels.

<u>Contaminant</u>	<u>Cleanup Level (mg/L)</u>
GRO	2.2
Benzene	0.005
Toluene	5.4
Ethylbenzene	5.5

Site Characterization and Cleanup Activities

This site was originally investigated in 1991 during upgrades to two 10,000-gallon unleaded gasoline underground storage tanks (USTs) and one 10,000-gallon diesel UST. A fourth tank which consisted of a 2,000-gallon waste oil UST, failed its tightness test, and was closed in place in July 2000. The waste oil tank is located on the east side of the City of Fairbanks Public Works building. Confirmation soil samples were collected from beside the waste oil tank at a depth of 8 feet below ground surface (bgs). There were no detections above cleanup levels for any analyte near the waste oil tank.

Petroleum impacted soil was encountered at both of the fuel dispenser islands on site during piping repairs and removal of a 10,000-gallon unleaded gasoline UST in 1999. While screening results and olfactory observations indicated contamination was present, no analytical samples were collected during this tank removal.

Additional soil was removed around the north dispenser island in 2000 to a depth of ten feet bgs. Contaminant levels found at the limits of this excavation showed GRO up to 453 mg/kg and benzene up to 23.4 mg/kg. Toluene was found up to 80.9 mg/kg and ethylbenzene was up to 14.3 mg/kg in confirmation soil samples. A total of 250 cubic yards of contaminated soil was excavated, and treated at the OIT remediation facility in North Pole, Alaska.

Groundwater was encountered at 12.5 feet bgs in 2000 during further excavation at the two dispenser islands. Groundwater monitoring began in July of 2000 and continued for three more monitoring events in October 2000, October 2001, and November 2005. GRO and benzene were found above Table C cleanup levels up to 11.4 mg/L and 4.83 mg/L respectively.

Although toluene and ethylbenzene were found in the confirmation soil samples near the north dispenser island, these analytes were not found above Table C cleanup levels in any of the groundwater samples. Groundwater results show that GRO levels decreased in all wells sampled. The benzene results showed a decreasing trend in all but one of the monitoring wells that

were able to be sampled; therefore, ADEC recommends additional sampling of MW-7 as one of the conditions of this decision letter. The majority of the contaminated sub-surface soil has been excavated and removed from the site. The groundwater plume is considered stable due to the decreasing trend in groundwater sampling results over four events spanning 2000 to 2005.

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 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	All surface soils near the dispenser islands were removed. The remaining contaminated soil is in the sub-surface and not accessible without excavation; therefore this pathway is considered incomplete.
Sub-Surface Soil Contact	De-Minimis Exposure	The majority of the contaminated sub-surface soil has been excavated and removed from the site. The remaining contamination is considered de minimis in volume, and is below the ingestion cleanup levels. Therefore, exposure via this pathway is considered insignificant.
Inhalation – Outdoor Air	De-Minimis	Contaminants remaining are ten feet below ground surface and covered with clean fill. The remaining concentrations are below inhalation cleanup levels for GRO, toluene, and ethylbenzene. The contamination cannot be accessed without removing the dispenser island and is considered de minimis in volume. Therefore, exposure for outdoor air pathway is considered insignificant.

Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	The buildings on site are more than 150 feet from the dispenser islands where the impacted soil remains; The remaining concentrations are: below inhalation cleanup levels; covered with clean fill and 10 ft. bgs. Therefore current and future risk via the <u>indoor air</u> pathway is considered insignificant.
Groundwater Ingestion	De-Minimis Exposure	There are no drinking water wells within ¼ mile of this site. Drinking water is supplied by the City of Fairbanks for this location. Therefore, exposure via this pathway is considered de minimis; and risk, insignificant.
Surface Water Ingestion	Pathway Incomplete	There is no surface water located within ¼ mile of the site; therefore, this pathway is considered incomplete.
Wild Foods Ingestion	Pathway Incomplete	This site is in a fenced industrial area and not a source for wild foods collection; therefore, this pathway is considered incomplete.
Exposure to Ecological Receptors	Pathway Incomplete	Remaining contamination is ten feet beneath the north dispenser island and there is no evidence of offsite migration; therefore, the pathway is considered incomplete.

Notes to Table 1: “De-Minimis exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume 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

Contamination remains on site above established default cleanup levels; however ADEC has determined there is no unacceptable risk to human health or the environment. Therefore this site will be issued a Corrective Action Complete- ICs Determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore the City of Fairbanks - Public Works Department shall report to ADEC every five years to document land use, or report as soon as the City of Fairbanks - Public Works Department 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. Any proposal to transport contaminated 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 Attachment B Site Figure.)
3. Soil contamination may be located under the two dispensing islands (See Attachment B Site Figure). When the soil becomes accessible, the soil must be evaluated and contamination addressed in accordance with an ADEC approved workplan, and/or to the satisfaction of ADEC.
4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
5. Installation of groundwater wells will require approval from ADEC in accordance with 18 AAC 75.350(2).
6. Samples shall be collected from MW-2, MW-3, and MW-7 and analyzed for BTEX and GRO. Status of future monitoring will be determined after the results of the next monitoring event are available.

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. When the site meets the requirements for a Corrective Action Complete Determination, Institutional Controls will be terminated.

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

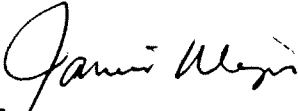
Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, 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 99801, 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 contact the ADEC project manager, Ann Farris at 907-451-2104.

Approved By,

Recommended By


for Linda Nuechterlein
Environmental Manager


Janice Wieggers
Environmental Program Specialist

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

Attachment A: Corrective Action Complete-ICs Agreement and Signature Page*

The City of Fairbanks - Public Works Department agrees to the terms of this Corrective Action Complete with ICs determination as stated in this Closure Decision Document dated **June 27, 2011** for the FMUS - Public Works site. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 78.276 (f).

Signature of Authorized Representative, Title
City of Fairbanks - Public Works Department

Printed Name of Authorized Representative, Title
City of Fairbanks - Public Works Department

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.

ADEC File No. 102.26.086
Hazard ID: 24262
ADEC Project Manager: Ann Farris

For Internal Use Only

***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 so that the PM can update the CS database.

Attachment B: Site Figure

