



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: 141.26.001
141.26.008
141.26.010

May 14, 2014

Dept. of the Army
Attn: Brian Adams, Directorate of Public Works
IMPC-FWA-PWE
1060 Gaffney Rd, #4500
Fort Wainwright, Alaska 99703-4500

Re: Gerstle River Test Site-UST Sites #000, #449, and #450 and #451

Mr. Adams,

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the referenced sites. This decision letter memorializes the site history, cleanup actions, and specific conditions required to effectively manage remaining contamination. No further corrective action will be required as long as compliance with these conditions is maintained.

Site Name and Location:

Gerstle River Test Site – UST #000, UST #440, and UST #450 and #451
63° 47' 34.6 N, 145° 2' 8.25 W

DEC Site Identifiers:

File No: 141.26.001, 141.26.008, 140.38.010
Hazard ID: 25020, 25564, and 24980

Regulatory Authority for Determination:

18 AAC 75 and 18 AAC 78

Site Description and Background and Characterization/Cleanup Actions

The GRTS was used by the Army as a chemical warfare materials test site from 1954 to 1967 (USATHAMA, 1976). The Administrative Area of the GRTS included an administration/chemical test facility building, laboratory, vehicle storage, and other facilities. The USTs formerly located at the site were used for heating, refueling, and to supply fuel for a generator. UST #000 was a 1,250-gallon capacity tank which contained diesel heating fuel and was located to the west of the Quonset hut. USTs #450 and #451 were associated with a fueling station located approximately 100 feet east

of the Quonset hut. The fueling station consisted of a wooden pump shed, a small concrete pad for the fuel pump, and approximately 20 feet of underground piping. Each of the tanks had a 500-gallon capacity and one reportedly contained gasoline and the other reportedly contained diesel fuel (Oil Spill Technologies [OST], 1994b). These three tanks were reportedly installed 1989 and were removed from operation in 1994. The tanks were subsequently removed from the site in 1994 (OST, 1994a; OST, 1994b). A fourth UST (#449) was formerly located near building 1501. It was reportedly used to store diesel fuel for a generator and boiler (Fort Greely Environmental Resources, 1990). The tank was removed in 1991, and it was noted during removal that the tank was in excellent condition with no evident corrosion.

Subsurface soil investigations were completed at each of the UST sites in 2009 and/or 2010, and the sampling results showed soil contamination above ADEC migration to groundwater cleanup levels. The only contaminant of concern (COC) at the UST #000 site was diesel range organics (DRO). The COCs associated with USTs #450 and #451 included DRO, gasoline range organics (GRO), ethylbenzene, xylenes, 1,2-dibromoethane (EDB), 1,2,4-trimethylbenzene (TMB), and naphthalene. DRO and two polycyclic aromatic hydrocarbons (PAH), benzo(a)anthracene and benzo(a)pyrene, were identified as COCs at the UST #449 site. Groundwater contamination was not evaluated as groundwater was not encountered during the investigation, and the depth to groundwater was previously identified as approximately 458 feet below ground surface (bgs) (United States Army Corps of Engineers [USACE], 2006).

Contaminants of Potential Concern (COPCs)

The following contaminants of potential concern, those above the most stringent method two soil cleanup levels, were identified during the course of the site investigations:

Diesel Range Organics (DRO),
Gasoline Range Organics (GRO),
Ethylbenzene (EBZ),
Xylenes,
1,2-dibromoethane (EDB),
1,2,4-trimethylbenzene (TMB),
Naphthalene,
Benzo(a)anthracene, and
Benzo(a)pyrene.

No groundwater contamination was identified, nor is groundwater contamination suspected.

Cleanup Levels – soil

ADEC has determined that the migration to groundwater soil cleanup levels are not applicable at these sites because groundwater is more than 400-ft beneath the site. Therefore, the approved cleanup levels for GRTS UST sites are the most stringent of the soil direct contact, ingestion or inhalation cleanup levels established in 18 AAC 75.341 (d), Table B1 and B2, which are shown below.

Approved Cleanup Levels

Contaminant	Soil Cleanup Level (mg/kg)
GRO	1,400
DRO	10,250
Ethylbenzene (EBZ)	110
Xylenes	63
1,2-dibromoethane (EDB)	0.6
1,2,4-trimethylbenzene (TMB)	49
Naphthalene	28
Benzo(a)anthracene	4.9
Benzo(a)pyrene	0.49

ADEC Decision

The USTs were removed from these sites in the mid 1990's. Site assessment work during the tank removals and subsequent release investigation work have documented some residual petroleum in soil at each site. Because groundwater at the sites is located over 400 feet below the ground surface, migration of contaminants from soil to the groundwater is not a pathway of concern.

Sites UST #000 and UST #449

The site investigations show that soil at these sites meets the approved cleanup levels. At site UST #449, there were some exceedances of the direct contact/inhalation cleanup levels, but the exceedances were in soil located more than fifteen feet below the ground surface and in accordance with 18 AAC 75.340(j) those cleanup levels do not apply at those depths. ADEC has determined these site meet the "cleanup complete" requirements and the status of each will be updated accordingly in the Contaminated Sites Database. Please note, the following standard conditions still apply:

- Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325.
- Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

UST Sites #450/451

Surface soil at the site meets the approved cleanup levels, however, contaminated soil remains between depths of 11 and 15 feet below ground surface. ADEC has determined the residual contamination does not pose an unacceptable risk as long as it remains in place and is not relocated to an area where exposure could occur. Therefore, ADEC is requesting the Army establish ICs restricting future excavation at the site to ensure contaminated soil is not exposed or moved to a location where it could pose potential risk.

Please provide documentation on how the Army is restricting excavation and the mechanisms for reviewing, tracking, and reporting the ICs in a brief Land Use Control Implementation Plan (LUCIP). Elements of the ICs that need to be described in the LUCIP for the site include:

- Restrictions on excavation into contaminated soil without an approved soil management plan.
- Obtaining ADEC contaminated sites program approval prior to relocating contaminated soil

to the ground surface or moving such soil off-site.

- Informational signs describing the location and details of the restrictions at the entrance to the Administrative Area at the Gerstle River Test Site.
- Inclusion of the IC boundaries and restrictions in the Fort Wainwright IC database.
- Update of IC boundaries and restriction details in Army Mapper.
- Addition of the IC restrictions to the Recreation Application Permit (RAP) for the GRTS area.
- Implementation of IC inspections and reporting

Upon receipt of documentation that the Army has established appropriate ICs, ADEC will change the status of the site to "Cleanup Complete with Institutional Controls (IC's)" on the Contaminated Sites Database.

Reopener Clause

The determinations made above are based on currently available information. If additional information becomes available that indicates contaminants at these sites may pose an unacceptable risk, ADEC reserves the right to require further release investigation and/or cleanup.

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.

If you have questions about this closure decision, please feel free to contact me at (907) 269-7528 or guy.warren1@alaska.gov.

Sincerely,



Guy Warren
Environmental Program Specialist

Enclosures:

Cc: