

STATE OF ALASKA

SARAH PALIN, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM**

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File: # 2100.38.325
Return Receipt Requested
Article No: 7007 3020 0000 1948 8872

April 14, 2009

Terry Fries
U.S. Geological Survey
345 Middlefield Road, Mail Stop 225
Menlo Park CA 94025

Re: Record of Decision; USGS Government Hill Site
Cleanup Complete Determination- Institutional Controls

Dear Mr. Fries:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the USGS Government Hill Site located at 132/140 East Manor Avenue in Anchorage, Alaska. 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 as long as the site is in compliance with established institutional controls.

This decision is based on the administrative record for the USGS Government Hill Site which is located in the offices of the ADEC in Anchorage, Alaska. 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 Cleanup Complete with ICs determination.

Introduction

Site Name and Location

USGS Government Hill Site
132/140 East Manor Avenue
Anchorage, AK

Name and Mailing Address of Contact Party:

Terry Fries
U.S. Geological Survey
345 Middlefield Road, Mail Stop 225
Menlo Park, CA 94025

Database Record Key and CS file number:

Hazard ID #2743

ADEC Reckey # 1997210904601

CS file # 2100.38.325

Regulatory authority under which the site is being cleaned up:

18 AAC 75 and 18 AAC 70

Background

Source areas at this site include three underground fuel storage tanks, a dry well, and a Quonset hut used for vehicle maintenance. The site was initially constructed as a wireless communications site in 1917.

Contaminants of Concern

During the various investigations at this site, soil and/or groundwater samples were analyzed for diesel range organics (DRO), residual range organics (RRO) polychlorinated biphenyl's (PCBs), volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX), and lead. Based on data results from these investigations the following Contaminants of Concern were identified:

<u>Soil</u>	<u>Groundwater</u>
PCBs	DRO
Lead	
Benzene	
Trichloroethylene (TCE)	
DRO	
RRO	

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, Under 40 inch Zone, Migration to Groundwater.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
• PCBs (total)	1
• Lead	400
• Residual Range Organics	11,000

In 2001, the following alternative soil cleanup levels using a Method Three approach were approved for the site:

• DRO	700
• Benzene	0.03
• TCE	0.05
• Methylene Chloride	0.02

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

<u>Contaminant</u>	<u>Site Cleanup Level (mg/L)</u>
• Diesel Range Organics	1.5

Site Characterization and Cleanup

A Phase II investigation was conducted in 1997 during which soil borings were advanced, a groundwater sample was collected, the drywell was investigated, and the three non-regulated underground storage tanks (USTs) were removed. One of the samples from a soil boring near the Quonset huts contained DRO up to 1,500 mg/kg at 38 feet below ground surface (bgs). The groundwater sample collected from a temporary well in this same borehole contained DRO at 1.6 mg/l. A soil sample collected beneath the drywell contained DRO at 6,000 mg/kg, RRO at 26,000 mg/kg, lead at 850 mg/kg, and total PCBs at 5.0 mg/kg. Approximately 10 cubic yards of soil were removed from each of the three UST excavations and confirmation samples indicated petroleum contamination was present at each of the three locations.

A Phase III investigation was conducted in 1998 during which three permanent monitoring wells, MW-1, MW-2, and MW-3 were installed at the site and soil and groundwater samples were collected. Of the soil samples collected during monitoring well installation, only the sample from 40 feet bgs in MW-3 contained contaminants above ADEC cleanup levels with DRO at 283 mg/kg. The groundwater samples from MW-2 and MW-3 both contained DRO above the cleanup level at 14.3 mg/l and 2.37 mg/l respectively. MW-2 was installed at the location of the former Quonset Huts; and MW-3 is located near the downgradient edge of the property.

Additional investigation and limited cleanup activities were conducted in 2000. A soil boring was advanced through the drywell to evaluate the nature and extent of contamination from this source. Soil samples collected as deep as 10 feet bgs contained TCE up to 0.0289 mg/kg. Following receipt of this data, the drywell was excavated to a depth of 6 feet bgs and two confirmation soil samples were collected. No contaminants were detected above cleanup levels in the confirmation soil samples including PCBs, lead, and TCE. Four test pits were excavated at the former USTs. Soil samples contained DRO up to 408 mg/kg at UST #2 located in the southeastern area of the property. Groundwater samples from the three monitoring wells did not contain contaminants above ADEC cleanup levels.

Alternative cleanup levels were developed for the site based on a Method Three approach. In 2001 ADEC approved alternate soil cleanup levels as follows: DRO-700 mg/kg, benzene-0.03 mg/kg, TCE-0.05 mg/kg, and Methylene Chloride - 0.02.

Two upgradient monitoring wells were installed and three soil borings were advanced on the property in 2001. Soil samples collected during monitoring well installation did not contain contaminants above ADEC cleanup levels and samples collected from the soil borings, advanced at the location of UST #3 did not contain contaminants above cleanup levels except for benzene, which was detected at 0.0440 mg/kg at 2.4 to 4.5 feet bgs. Groundwater samples

were collected from the 3 existing and the two new monitoring wells. DRO was detected in MW-2 at 2.9 mg/l. No other groundwater samples contained contaminants above ADEC cleanup levels.

In 2002, a cleanup effort was conducted to address the remaining benzene concentrations at UST #3. Approximately 12 cubic yards of impacted soil was excavated from the area beneath the former tank. Confirmation samples did not contain benzene above the alternate cleanup level. A groundwater sample collected from MW-2 contained DRO at 4.10 mg/l.

Groundwater monitoring continued at the site until 2008. The last two sampling events at MW-2 in 2008, showed increases in DRO concentrations with detections at 20.5 mg/l and 18.8 mg/l. The increase in DRO concentrations may be related to the low water level in the well in 2008. A search for potential off-site source areas was unsuccessful. However the extent of groundwater contamination in the area is considered to be adequately characterized based on sample results from the down-gradient monitoring wells.

Summary of Cleanup Activities

The cleanup activities conducted at the various source areas at this site have removed the majority of contaminated soil and groundwater from the property; however soil contamination remains at several of the source areas including:

- Former Quonset Huts: DRO was detected at 1,500 mg/kg at 38 feet bgs near the former Quonset huts. Cleanup was conducted to this depth, so it is assumed that DRO remains in soil at this location.
- Drywell: The removal effort at the drywell went to 6 feet bgs however TCE was detected at 0.0289 mg/kg at 10 feet bgs so it is assumed that TCE remains in soil at this location.
- USTs: DRO was detected at 331 mg/kg at tank #1 and 408 mg/kg at tank #2 in excavation confirmation samples and is assumed to remain in soil at these locations.
- Groundwater: Groundwater remains in MW-2 above Table C cleanup levels.

According to the USGS, this property is scheduled for transfer to the Anchorage Historical Society for use as offices and a museum.

Pathway Evaluation

Following investigation and cleanup at the site, human health exposure to the remaining contaminants in soil (DRO and TCE) and groundwater (DRO) was evaluated using ADEC's Exposure Tracking Model. The human health exposure pathways that were evaluated for this decision document included: inhalation of indoor and outdoor air; ingestion of soil; dermal contact with soil; and ingestion of groundwater.

The inhalation, ingestion, and dermal contact pathways may be complete but the remaining contamination at the site is below the Method Two Human Health cleanup levels. It is also located at a depth where contamination is not available to receptors. The ingestion of groundwater pathway is considered incomplete as there are no potable wells in the area, and all the surrounding residences are connected to the municipal water supply

The exposure pathway analysis above was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

ADEC Decision

The ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup 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 USGS shall report to ADEC once every five years or as soon as USGS becomes aware of any change in land ownership and/or use, if earlier. **The report can be sent to the ADEC project manager or electronically to DEC.ICUnit@alaska.gov.**
2. Groundwater monitoring shall be continued on an annual basis at MW-2 to monitor historical fluctuations in contaminant concentrations and water levels in this well. Future groundwater monitoring frequency will be determined by ADEC based on sample results from the previous event.
3. All groundwater monitoring wells not needed for future sampling events must be decommissioned in accordance with ADEC guidance and documented in a report to ADEC. Monitoring wells approved by ADEC for decommissioning must be decommissioned by July 31, 2009.
4. 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. (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 terminated when contaminant concentrations are below applicable ADEC cleanup levels, or when the site meets the requirements for a Cleanup Complete as determined by ADEC.

This determination is in accordance with 18 AAC 75.380(d) 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.

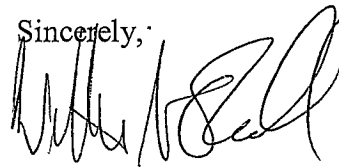
If you have questions about this closure decision, please contact ADEC Project Manager William O'Connell at (907) 269-3057.

Sincerely,



Linda Nuechterlein
Environmental Manager

Sincerely,



William O'Connell
Environmental Program Specialist

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

cc: Vicki Flagg, USGS
Esther Eng

Attachment A: Cleanup Complete-ICs Agreement and Signature Page

The United States Geological Survey (USGS) agrees to the terms of this Cleanup Complete-ICs determination as stated in this Record of Decision (ROD) document dated April 14, 2009 for the USGS Government Hill 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 75.380(d)(2).

Signature of Authorized Representative
USGS

Printed Name of Authorized Representative
USGS

Note to Responsible Person:

After making a copy for your records, please return a signed copy of this form to the ADEC project manager, William O'Connell, at the address on this correspondence within 30 days of receipt of this letter.

Attachment B: Site Figure

