SEAN PARNELL, GOVERNOR

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

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File: 2661.26.002

April 1, 2011

Nancy M. Peterson
Public Works Director
City of Unalaska, Department of Public Works
P.O. Box 610
Unalaska, AK 99685

Re: Decision Document; Unalaska Public Works Building
Corrective Action Complete Determination

Dear Ms. Peterson:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program has completed a review of the environmental records associated with the Unalaska Public Works Building, located in Unalaska, 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 at this time.

This decision is based on the administrative record for this site, which is located in the offices of the ADEC in Soldotna, 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 this Corrective Action Complete determination.

Introduction

Site Name and Location:
Unalaska Public Works Building
1035 East Broadway Avenue
Unalaska, AK

Name and Mailing Address of Land Owner:
Nancy M. Peterson
Public Works Director
City of Unalaska, Department of Public Works
P.O. Box 610
Unalaska, AK 99685

ADEC Site Identifiers
Reckey: 1991250027701
File: 2661.26.002
Hazard ID: 23251

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 78

Background
This site was the location of the City of Unalaska's Public Works Department. Petroleum impacted soil was encountered during the October 3, 1991 removal of one 2,000-gallon gasoline, and one 4,000-gallon diesel, underground storage tank (UST) systems.

Release Investigation and Cleanup Actions
The USTs were removed in 1991, at which time a release investigation was conducted by America North, Inc (ANI). Contaminated soils were encountered during removal activities, and the excavation was expanded horizontally in an attempt to remove impacted soils. This effort was guided by using a photoionization detector (PID) to screen the soils. Excavation activities were stopped once the PID depicted that the contaminated soils had been removed. Bedrock was encountered at depths ranging from 12 to 14 feet below ground surface during the excavation of impacted soil. Approximately 330 cubic yards of contaminated soil were excavated and stockpiled onsite.

Groundwater was encountered in the UST removal excavation at a depth of approximately 11.3 feet below ground surface. A groundwater sample collected from the excavation had a benzene concentration of 0.104 mg/L. Total petroleum hydrocarbon (TPH) and extractable petroleum hydrocarbons (EPH) were also encountered at concentrations of 140 mg/L and 67.5 mg/L, respectively. Petroleum sheening was observed on the water table. A monitoring well was installed in what ANI believed to be a downgradient direction, approximately 100 feet from the excavation. The water sample collected from this well was reported as non-detect for BTEX and EPH, however the detection level for EPH was elevated (10 mg/kg).

Soil analytical results confirmed that EPH soil contamination remained in two areas of the excavation. ANI removed additional soils in these areas, and subsequent analyses depicted that cleanup levels for EPH were met. A sample collected from Monitoring Well 1 had a toluene concentration of 0.002 mg/L, and was non-detect for benzene, ethylbenzene, xylenes, and VPH.

The contaminated soils from this project were placed into a bioremediation cell in 1992 in an effort to reduce contaminant concentrations to the applicable soil cleanup levels. Tilling activities occurred in 1992 and 1993. Sampling of the soils was conducted in 1995 for diesel range organics (DRO); gasoline range organics (GRO); and benzene, toluene, ethylbenzene, and xylene (BTEX). DRO was the only contaminant encountered above cleanup levels, with the highest concentration being 763 mg/kg.

Jacobs Engineering Group approached ADEC in 1996 with a request to utilize the impacted soils from this project and from another City of Unalaska project in preparing a staging area on East Point Loop Road, and for constructing containment cells for impacted soils being

transported from the Akutan Fueling Station site that were to be thermally remediated by the Army Corp of Engineers. The work plan was approved by the ADEC project manager on April 23, 1996. The plan was to thermally remediate all of the soils from the Akutan Fueling Station site as well as the impacted soils underlying the areas where these soils were placed. Most of the impacted soils that the City of Unalaska had been bioremediating were used in the Jacobs Engineering/Akutan Fueling Station thermal remediation project with the exception of 100 cubic yards of impacted soil that appeared to be clean and was removed from the biocell prior to removing the impacted soils. Jacobs Engineering collected two soil samples from these soils. DRO was detected at concentrations of 128 mg/kg and 223 mg/kg. Jacobs Engineering proposed taking the impacted soils to the landfill to be utilized for cell construction or as cover material. It is doubtful that this occurred because staff from the Solid Waste Program indicated that a waiver would have to be requested because the soil exceeded the most stringent cleanup levels in existence at that time.

In 2010 staff contacted Jim Dixon, an employee at the City of Unalaska. Mr. Dixon advised that the property had gone through some major improvements over the last decade, and that the monitoring well had been decommissioned some time ago. Mr. Dixon stated that no stockpile of soils presently existed at the facility, and that he was of the belief that all soils had been transported to the East Point Loop Road location and thermally remediated.

Maximum historical soil contaminant concentrations that exceed the ADEC Method 2 Cleanup Levels that have been reported to ADEC during the history of this project were:

DRO	18,000 mg/kg

Contaminants of Concern

During the investigations and corrective action/cleanup work performed at this site, soil and water samples were collected and analyzed for BTEX, GRO, DRO, EPH, and TPH. Following the completion of the cleanup measures employed at this site, these Contaminants of Concern were reported to meet the applicable ADEC soil cleanup levels.

Soil and Groundwater Cleanup Levels

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

Contaminant	Site Cleanup Level (mg/kg)
Benzene	0.025
DRO	250

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

Contaminant	Site Cleanup Level (mg/L)
Benzene	0.005
DRO	1.5

Pathway Evaluation

Following the completion of **release investigation and cleanup actions** at this site, exposure to any remaining contamination 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 current pathways to be one of the following: De minimis Exposure, 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	Contaminants have not been detected in the surface soil above ADEC 'ingestion' and 'direct contact' soil cleanup levels.
Sub-Surface Soil Contact	De-minimis exposure	Residual contamination in sub-surface soil is below ADEC 'migration to groundwater' soil cleanup levels.
Inhalation – Outdoor Air	De-minimis exposure	Surface and subsurface soils meet the most restrictive ADEC soil cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-minimis exposure	Surface soils, subsurface soils, and groundwater meet the most restrictive ADEC cleanup levels.
Groundwater Ingestion	De-minimis exposure	Groundwater contamination is no longer present at this site. Groundwater at the site is not currently used as a drinking water source. This property is currently connected to the City of Unalaska public water system.
Surface Water Ingestion	Pathway Incomplete	Residual contaminant migration to adjacent wetland areas or surface waters is not anticipated.
Wild Foods Ingestion	Pathway Incomplete	Wild food harvest on this property is not likely. Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	No impact is anticipated.

Notes to Table 1: "De-minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal concentrations of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors.

ADEC Decision

The assessment and cleanup actions performed at this site included the excavation, removal, and/or treatment of the contaminated soil. Based on the information provided, ADEC has determined no further assessment or cleanup action is required. There is no longer an

unacceptable risk to human health or the environment, and this site will be designated as Cleanup Complete on the ADEC database.

Although a Corrective Action Complete determination has been granted, ADEC approval is still required for off-site soil disposal in accordance with 18 AAC 78.600(h). Please note that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

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.

If you have questions about this Corrective Action Complete decision, or any other aspect of this project, please contact me at (907) 262-5210 extension 245, or via e-mail at don.fritz@alaska.gov

Recommended By,

Donald G. Fritz
Environmental Program Specialist

Approved By,

Paul Horwath
Environmental Engineer