



SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

**DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM**

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File: 2327.38.003

January 12, 2012

Dave Gottschalk
Environmental Compliance Manager
Kenai Peninsula Borough
144 North Binkley Street
Soldotna, Alaska 99669

Re: ADEC Decision Document; KPBSD Port Graham Elementary/High School
Cleanup Complete Determination

Dear Mr. Gottschalk:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the KPBSD Port Graham Elementary/High School site located in Port Graham, 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 Cleanup Complete Determination.

Introduction

Site Name and Location:

KPBSD Port Graham Elementary/High School
63693 Graham Road
Port Graham, Alaska 99603

Property Legal Description:

US Survey 3889 Lot 1, Township 9 South, Range 15 West, Section 32 and 33, Seward Meridian, SL 0003889.

Landowner:

Kenai Peninsula Borough

ADEC Site Identifiers

ADEC Reckey: 2000230106701

ADEC File Number: 2327.38.003

Hazard ID: 3332

Regulatory authority under which the site is being cleaned up:

18 AAC 75

Background

The current school building was constructed between 1974 and 1976. The current property developments include the school building, teachers' quarters, a playground, a basketball court, a storage shed, a generator building (which includes a wood shop and storage room), and eight propane storage tanks for heating and emergency power. In October of 1999, Kenai Peninsula Borough Maintenance personnel encountered diesel contamination within the crawl space during routine work. On August 17 and 18, 2000, field investigation found evidence that several diesel fuel releases had occurred in the past from two former diesel fuel tanks and associated piping, with Diesel Range Organics (DRO) soil contamination being encountered within the crawl space, south and east of the school building, north west of the teachers' quarters, and west of the current propane tanks.

Diesel fuel was historically used for heating and emergency power generation systems at this school. The sites prior history indicated that diesel fuel has not been stored and used on the property since the early 1980's. A propane heating system was installed in 1981. Two heating oil (diesel) fuel tanks were reportedly removed from the school property sometime between 1981 and 1984.

Site Characterization and Cleanup Actions

In October 1999 during routine work performed by Kenai Peninsula Borough Maintenance personnel, diesel contamination was encountered in the crawl space below two classrooms at the south end of the school building. The Kenai Peninsula Borough Maintenance workers first noticed fuel odor about one foot below ground, approximately one to one and a half feet above bedrock. There is no recorded that fuel odor had ever been reported by any occupants of the school building prior to October of 1999.

One soil sample was collected below the ground surface near bedrock on December 28, 1999, with DRO soil contamination at 1,520 mg/kg. The laboratory sample indicated that the soil contamination was a highly weathered diesel fuel.

On August 17 through 18, of 2000, site characterization work was performed to assess the extent of the diesel fuel release within the crawl space and outside of the school building. Two soil samples were taken along the former piping route (outside of the school building, with one near the teachers' quarters, and one between the teachers' quarters and the school building). DRO soil contamination was encountered at five feet below ground surface (bgs) near the teachers' quarters at 578 mg/kg, and 35,600 mg/kg at three feet bgs between the teachers' quarters and the school building. Two samples were taken (outside the school building, just

south of the school building), with DRO concentrations at 2,420 and 6,220 mg/kg at 4 feet bgs and 1.8 feet bgs respectively. The soil samples taken within the crawl space at two feet bgs found DRO at 2,590 and 3,310 mg/kg. One additional sample was taken from the west side of the generator building with DRO concentrations of 3,620 mg/kg at 1.9 feet bgs. The soil sample taken at three feet bgs on the bedrock surface with concentrations of 35,600 mg/kg was determined by the laboratory to be an organic material and was discounted due to high organics content and biogenic interference.

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for DRO, gasoline range organics (GRO), benzene, ethylbenzene, toluene and xylenes (BTEX), and polynuclear aromatic hydrocarbons (PAHs). Following the completion of the assessment measures employed at this site, residual concentrations of the following Contaminants of Concern remain at this site in soil in excess of the ADEC Cleanup Levels:

- Diesel Range Organics (DRO)

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B1 and Table B2, Under 40 inch Zone, 'Migration to Groundwater'.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
• Diesel Range Organics	250

Pathway Evaluation

Following investigation and cleanup at the 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 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	De minimis Exposure	Impacted surface soils are below the ADEC ingestion soil cleanup levels.
Sub-Surface Soil Contact	De minimis Exposure	Residual sub-surface soil contamination meets the applicable ADEC ingestion soil cleanup levels.
Inhalation – Outdoor Air	De minimis Exposure	Residual soil concentrations meet the applicable ADEC outdoor air inhalation soil cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De minimis Exposure	Residual soil contamination within the crawl space is located in the subsurface soil at bedrock, and indoor air is unlikely to be affected by the minimal mass of remaining contamination.

Groundwater Ingestion	Pathway Incomplete	Groundwater was not encountered and is located beneath the bedrock. The site and surrounding facilities are serviced by the Port Graham community water supply, the water source for which is located one mile from the site.
Surface Water Ingestion	Pathway Incomplete	Residual contamination has no potential to impact the nearby Port Graham Bay. The bay is subject to salt water intrusion in this area and is unsuitable as a drinking water source.
Wild Foods Ingestion	Pathway Incomplete	Residual contamination has no potential to impact the nearby Port Graham Bay. Contaminants of concern are not bio-accumulative in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Residual contamination has no potential to impact terrestrial or aquatic receptors.

Notes to Table 1: “De-minimis Exposure” means that in ADEC’s judgment, receptors are unlikely to be affected by the minimal mass of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment, contamination has no potential to contact receptors.

ADEC Decision

Based on the most recent soil samples collected at this site, soil contamination remains on site above established default cleanup levels. However, ADEC has determined that this site does not pose an unacceptable risk to human health or the environment, subject to the below stipulated conditions. Therefore, we are issuing this ‘Corrective Action Complete’ decision, subject to the following condition:

1. In accordance with 18 AAC 75.325(i), contaminated soil or water may not be moved or disposed without ADEC’s prior written approval. The excavation of soil on this property in the vicinity of the school building, crawl space, school foundation, teachers’ quarters, and the propane tanks may expose contaminated soil or water requiring proper safety, management, and disposal practices. The Kenai Peninsula Borough is responsible for any residual contamination. Any person(s) excavating soil or moving soil or water from the vicinity of the school building, crawl space, school foundation, teachers’ quarters and the propane tanks shall contact ADEC and should coordinate with the Kenai Peninsula Borough. The Kenai Peninsula Borough shall provide the services of a qualified impartial third party as required in 18 AAC 75 in order to properly monitor, assess, manage, treat, and dispose of any contaminated media. The Kenai Peninsula Borough shall provide for the proper handling, treatment, and disposal of any contaminated soils or groundwater encountered in accordance with all applicable ADEC regulations at that time.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status to ‘Cleanup Complete’, and will include a description of the contamination remaining at the site.

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.

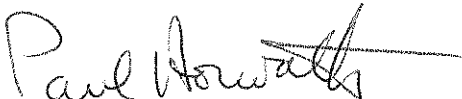
It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

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.

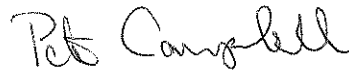
If you have questions about this closure decision, please contact the ADEC project manager, currently Peter Campbell, at (907) 262-3412 or via e-mail at peter.campbell@alaska.gov

Approved By,



Paul Horwath, P.E.
Environmental Engineer

Recommended By,



Peter Campbell
Environmental Program Specialist

Cc: Ronald T. Rozak, Rozak Engineering