



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of Environmental  
Conservation**

DIVISION OF SPILL PREVENTION &  
RESPONSE  
Contaminated Sites Program

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File: 2323.38.054  
Article No: 7012 1010 0003 0389 0122

October 19, 2012

Mike Brodie  
Chugach Electric Association, Inc.  
5601 Electron Drive  
P.O. Box 196300  
Anchorage, Alaska 99519

Re: ADEC Decision Document; Bernice Lake Power Plant  
Cleanup Complete Determination

Dear Mr. Brodie:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), has completed a review of the environmental records associated with the Bernice Lake Power Plant site located at 55244 Chevron Road, in Nikiski, Alaska. Based on the information provided and available 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 cleanup action is required at this time.

This decision is based on the Bernice Lake Power Plant administrative record 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**

ADEC Site Name and Location:

Bernice Lake Power Plant  
55244 Chevron Road  
Nikiski, Alaska 99635

Name and Mailing Address of Land Owner:

Homer Electric Association

Bruce Linton  
3977 Lake Street  
Homer, Alaska 99603-7652

Property Legal Description:

Tract F, of Chevron Tracts Subdivision, Tracts A to F and K and L, according to Plat No. 95-35, Records of the Kenai Recording District, Third Judicial District, State of Alaska.

ADEC Site Identifiers:

File: 2323.38.054  
Hazard ID: 25878

Regulatory authority under which the site is being cleaned up:

18 AAC 75

**Background**

The Bernice Lake Power Plant site has been used as a power generation facility located in an industrial area on the bluffs of Cook Inlet. The facility was previously owned by Chugach Electric Association, Incorporated, and leased by Homer Electric Association. On January 1, 2012 the property was fully transferred to Homer Electric Association. The site has been impacted by diesel fuel and polychlorinated biphenyls (PCBs), associated with leaks from seals on transformer TRF-116. During site assessment and cleanup response measures, soil samples collected at this site were tested for: diesel range organics (DRO), residual range organics (RRO), and polychlorinated biphenyls (PCBs).

Groundwater has been measured at a depth of 55 feet below the ground surface. This property and adjacent developed properties use groundwater for drinking water and potable water. No municipal public water system is currently available in this locale.

A more detailed history is contained within ADEC's administrative record for this site, which is available for public review.

**Site Characterization and Cleanup Actions**

In July of 2011 field screening samples were collected from the area around transformer TRF-116 to determine if the oil stained area or surrounding soil contained PCBs for a property transfer transaction. Field screening results indicated that only two samples were reported as having greater than 50 ppm PCBs.

In May of 2012 during an initial investigation, diesel range organics was detected at one foot below ground surface at 644 mg/kg and at two feet below ground surface at 3,310 mg/kg in samples collected next to transformer TRF-116. PCBs were detected at 0.052 mg/kg at one foot below ground surface and at 0.0813 mg/kg at two feet below ground surface. The release was determined to be from oil leaking from seals on the transformer.

In June of 2012 a total of 40 cubic yards (97.62 tons) of diesel range contaminated soil were excavated from the former area of transformer TRF-116. Confirmation soil samples taken within the excavation did not detect DRO, RRO and PCBs at depths of 7 to 8 feet below ground surface. Soil samples analyzed from the stockpile indicated that these soils were acceptable for disposal at the Kenai Peninsula Borough Landfill, and transported on August 3, 2012 for disposal.

A composite grid sample was collected after excavation activities to determine what levels of contamination (if any) may have resulted from PCBs tracked-out from historical truck or equipment movement on site. Sample results detected 0.139 mg/kg PCBs at a depth of 0.3 feet below ground surface which is below the most stringent ADEC cleanup level of 1 mg/Kg for PCBs. Therefore, risk posed by this remaining PCB contamination is considered insignificant. The 2,703-gallons of transformer oil removed from the transformer was disposed of by Emerald Alaska.

Following the completion of remedial actions performed at this site from 2011 to 2012, residual soil contamination has not been reported to remain at this site exceeding the ADEC's Method Two Migration to Groundwater soil cleanup levels at depths exceeding eight feet below ground surface. Groundwater which has been reported at a depth of 55 feet below ground surface, was not encountered and has not been affected by this transformer oil release. This property and adjacent developed properties use groundwater for drinking water and potable water. No municipal public water system is currently available in this locale.

### Contaminants of Concern

During the field investigations performed at this site, soil samples were analyzed for diesel range organics (DRO), residual range organics (RRO), and polychlorinated biphenyls (PCBs). After the completion of the cleanup measures taken at this site, no Contaminants of Concern (COCs) were reported to remain in surface or subsurface soil at concentrations exceeding the current ADEC default soil cleanup levels:

### 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
• Residual Range Organics	11,000
• Polychlorinated Biphenyls	1

### Pathway Evaluation

Following investigation and cleanup at the site, the potential for exposure to all known 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**

<b>Pathway</b>	<b>Result</b>	<b>Explanation</b>
Surface Soil Contact	De-minimis Exposure	Residual contamination in surface soil is below ADEC ingestion/direct contact soil cleanup levels.
Sub-Surface Soil Contact	De-minimis Exposure	Soil contamination was removed from the sub-surface soils during the removal of transformer TRF-116. Residual contamination is below ADEC ingestion/direct contact soil cleanup levels.
Inhalation – Outdoor Air	De-minimis Exposure	Residual contamination in surface and sub-surface soil is below ADEC inhalation soil cleanup.
Inhalation – Indoor Air (vapor intrusion)	De-minimis Exposure	Residual contamination in surface and sub-surface soil is below ADEC inhalation/direct contact cleanup levels, is considered non-volatile and is de-minimis in volume. Therefore, it does not pose a significant risk via this pathway.
Groundwater Ingestion	Pathway Incomplete	Groundwater was not encountered, and is not believed to have been impacted. Groundwater has been reported at a depth of 55 feet below ground surface.
Surface Water Ingestion	Pathway Incomplete	Residual contaminant migration to adjacent Cook Inlet is not likely, and surface water is not used as a drinking water source in this area.
Wild Foods Ingestion	Pathway Incomplete	Wild food harvest on this property is unlikely, and contaminants of concern do not have the potential to bioaccumulate 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 volume 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 that remains on site does not exceed the established default cleanup levels. ADEC has determined there is no unacceptable risk to human health or the environment. Therefore, we are issuing this ‘Cleanup Complete’ decision.

Although a Cleanup Complete determination has been granted, ADEC approval is required for off-site soil disposal of soils located in the area of the former transformer TRF-116 in accordance with 18 AAC 78.325(i). It should also 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.

The ACEC Contaminated Sites Database will be updated to reflect the change in site status to 'Cleanup Complete', and will include a description of the residual 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.

### 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.

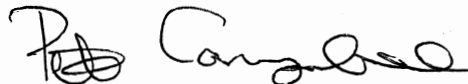
If you have any questions about this Cleanup Complete decision, or any other aspect of this project please contact me at (907) 262-3412, or via e-mail at [peter.campbell@alaska.gov](mailto:peter.campbell@alaska.gov)

Approved By,



Linda Nuechterlein  
Environmental Program Manager I

Recommended By,



Peter Campbell  
Environmental Program Specialist

Cc: Graham Stahnke, PE, Restoration Science & Engineering, LLC, Anchorage  
Bruce Linton, Homer Electric Association, Homer