



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: 2331.38.002

October 11, 2013

Bruce Linton
Homer Electric Association, Inc.
280 Airport Way
Kenai, Alaska 99611

Re: Decision Document: HEA Seldovia Power Plant
Cleanup Complete Determination

Dear Mr. Linton:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the HEA Seldovia Power Plant site, located at Alder Street and Anderson Way, Seldovia, 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 the HEA Seldovia Power Plant 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.

Site Name and Location:
HEA Seldovia Power Plant
Alder Street and Anderson Way
Seldovia, Alaska 99663

Name and Mailing Address of Contact Party:
Bruce Linton
Homer Electric Association, Inc.
280 Airport Way
Kenai, Alaska 99611

DEC Site Identifiers:
File No: 2331.38.002
Hazard ID: 4010

Regulatory Authority for Determination:
18 AAC 75

Property Legal Description:

Lot Three (3), Block Twenty (20), Townsite of Seldovia, according to U.S. Survey No. 2160, in the Seldovia Recording District, Third Judicial District, State of Alaska.

Site Description and Background

This site is the location of the City of Seldovia Power Plant, located in Seldovia, Alaska. In 2003 during excavation of a water line, petroleum contamination was identified at the site. Release investigations that followed in 2003 and 2004 indicated approximately 1,200 to 3,000 cubic yards (cys) of potentially contaminated soil was located at the site. Remediation efforts included the removal of approximately 100 to 105 super sacks of contaminated soil, and assessment of the soil and groundwater. During site assessment and cleanup response measures, soil samples collected at this site were tested for: diesel range organics (DRO), residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), polychlorinated biphenyls (PCBs) and poly-aromatic hydrocarbons (PAHs).

Groundwater was encountered at a depth of 3 to 8 feet below ground surface (bgs) during site assessment work. There are no known drinking water wells located down-gradient of the site and the area is serviced by the City of Seldovia public water and sewer systems.

Contaminants of Concern

The following petroleum contaminants of concern exceeding ADEC cleanup levels were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Diesel Range Organics (DRO)

Soil Cleanup Level

The soil cleanup level for DRO at this site is established in 18 AAC 75.341, Method Two, Table B2, Under 40 inch Zone, 'Ingestion' cleanup level.

Applicable Soil Cleanup Level

- Diesel Range Organics 10,250 mg/kg

Groundwater is not a source of drinking water, so there are no applicable groundwater cleanup levels.

Site Characterization and Cleanup Actions

Characterization and cleanup activities under 18 AAC 75.335, conducted under the regulatory authority of the Contaminated Sites Program, began in October of 2003 during a preliminary assessment of petroleum contamination identified in the soils during excavation of a water line to the Seldovia Power Plant. Diesel range organics (DRO) were detected at 1,440 to 32,900 mg/kg and

benzene at 0.05 to 0.392 mg/kg at depths of 1.5 to 4 feet bgs in the northwestern portion of the site, associated with a former diesel above ground fuel storage tank (AST) and associated piping. DRO was also detected at 406 to 8,000 mg/kg at depths of 1.5 to 4.5 feet bgs along the east and southeast sides of the power plant building foundation.

In February of 2004, a site characterization was conducted that identified an estimated 100 to 200 cy of DRO soil contamination exceeding 10,000 mg/kg and an estimated 1,000 cy of DRO soil contamination exceeding 1,000 mg/kg, associated with the former underground fuel line leading into the old power plant building. DRO was encountered at 250 to 9,880 mg/kg at depths of 3 to 7 feet bgs, and benzene at 0.0257 to 0.061 mg/kg at depths of 3 to 5.5 feet bgs. Analysis of a groundwater sample identified DRO at 0.621 mg/L.

On March 4, 2004, ADEC issued approval for HEA to proceed with the construction and installation of two back-up generators on the concrete slab, contingent on the following requirements: A corrective action plan would be developed that addressed all accessible contamination exceeding ADEC cleanup levels, establish institutional controls to address the remaining contaminated soil under the concrete slab, establish a monitoring program to ensure that the contamination under the slab was not migrating, and should the contaminated soils become accessible a some future time, additional site assessment and/or corrective action would be required.

On July 14, 2004, before the installation of two back-up generators on the concrete slab, a 44 foot trench was excavated to a depth of 3 feet below the surface of the concrete slab of the power plant building. DRO was detected at 3,140 mg/kg in the soil sample collected in the trench, confirming that contaminated soil is present under the concrete foundation. A groundwater sample collected from the sole groundwater monitoring well was analyzed, and detected DRO at 1.66 mg/L and benzene at 0.00548 mg/L. Based on the findings of the July 2004 excavation, it was estimated that the total volume of soil with DRO exceeding 1,000 mg/kg was 1,200 to 3,000 cys.

In October of 2004, three additional groundwater monitoring wells were installed in an effort to better define the extent of the groundwater impacts. No contamination was detected in any of these newly installed wells. Groundwater elevations in the wells portrayed a steep groundwater gradient. One soil sample was collected across the street from the site was tested and no contamination was detected.

On June 15 through 17, 2005, excavation of the highly impacted soil in the vicinity of the abandoned fuel line that ran from the northwest corner of the property to the generator pad was initiated. Seventy-five super sacks of contaminated soil was removed and transported off site for thermal treatment and disposal. An additional 25 to 30 super sacks of contaminated soil obtained from previous work were also transported off site for thermal treatment and disposal. The excavation was advanced to bedrock, and confirmation soil samples were collected at the perimeter of the excavation. DRO was encountered at 369 to 3,670 mg/kg at depths of 4 to 6 feet bgs.

Groundwater samples were collected and resulted in the detection of DRO at 0.824 mg/L, benzene at 0.000613 and 0.00198 mg/L, toluene at 0.00515 mg/L and xylenes at 0.0028 mg/L.

On November 3, 2005 ADEC issued a No Further Remedial Action Planned letter, in association with a Record of Decision (ROD), also dated November 3, 2005. ADEC's decision was subject to the conditions listed in Section VIII of the ROD. It was determined that DRO and benzene soil contaminant levels met the soil cleanup level found in 18 AAC 75.341 Method Two, Table B2, Under 40 inch Zone, 'Ingestion' cleanup level.

On November 16, 2005 long term groundwater monitoring was established for monitoring wells MW-1, MW-2, and MW-3. ADEC authorized the decommissioning of MW-4. Sampling was required semi-annually for the first two years of the long-term monitoring program. The sampling frequency changing from semi-annual to annual on January 15, 2008 with samples only required from MW-1 and MW-2. On July 30, 2012 MW-2, MW-3, MW-4 were decommissioned and a replacement well MW-2R was installed. Long-term groundwater monitoring was performed from 2005 until 2013, until it was determined that contamination was not migrating.

Following the completion of site cleanup actions performed at this site from 2003 to 2013, residual soil contamination remained in the surface and subsurface soil, but the concentrations do not exceed the soil cleanup level for DRO.

Cumulative Risk Evaluation

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations do not pose an unacceptable cumulative human health risk.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants 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	Residual DRO contamination in surface soil is below ADEC's 'Ingestion' soil cleanup level.
Sub-Surface Soil Contact	De-minimis Exposure	Residual contamination in subsurface soil is below ADEC's 'Ingestion' soil cleanup level.

Inhalation – Outdoor Air	De-minimis Exposure	Residual contamination in surface and subsurface soil is below ADEC’s ‘Inhalation’ soil cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-minimis Exposure	Indoor air is unlikely to be affected by the residual contamination.
Groundwater Ingestion	Pathway Incomplete	Groundwater is not a source of drinking water. This site and surrounding properties are serviced by the City of Seldovia public water supply system.
Surface Water Ingestion	Pathway Incomplete	Residual contamination has no potential to contact surface waters that could be used for drinking water.
Wild Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	De-minimis Exposure	The residual contamination has no potential to contact ecological 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

The cleanup actions completed at this site have served to adequately reduce contaminant concentrations in soil and groundwater. ADEC has determined that residual contamination no longer poses an unacceptable risk to human health or the environment. Therefore, we are issuing this Cleanup Complete determination with the following conditions:

1. 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. The excavation of soil on this property in the south/southwest and eastern portions of the property may expose contaminated soil requiring proper safety, management, and disposal practices. Any person(s) excavating soil or moving soil or groundwater from this property shall contact ADEC and shall provide for the proper handling, treatment, and disposal of any contaminated media encountered in accordance with all applicable ADEC regulations at that time.
2. The two remaining groundwater monitoring wells at this site must now be properly decommissioned in accordance with ADEC’s November 2011 Monitoring Well Guidance. Homer Electric Association must prepare and provide ADEC with a work plan which identifies proposed decommissioning procedures for ADEC review and approval, prior to implementation of those procedures. This work plan must also provide a schedule for

accomplishing this work. This work must be performed, or directly supervised by, a 'qualified person' as defined in 18 AAC 78.995(118), and the final report documenting the completion of this work must be signed by a qualified person.

This Cleanup Complete Decision supersedes the prior ADEC No Further Remedial Action Planned letter, and the associated Record of Decision, dated November 3, 2005.

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

This determination is in accordance with 18 AAC 75.380 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. The Homer Electric Association remains liable for any additional assessment and/or cleanup action(s), should ADEC impose such a requirement.

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

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 Cleanup Complete Decision Document, please contact me at (907) 262-3422, or via e-mail at paul.horwath@alaska.gov

Sincerely,



Paul Horwath, PE
Engineer I, DEC

Cc: Larry A. Helgeson, P.E., Environmental Management Incorporated, Anchorage