

# STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

## DEPT. OF ENVIRONMENTAL CONSERVATION

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

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File: 102.38.106

October 30, 2006

Mr. Robert Haviland  
Department of the Army  
U.S. Army Engineer District  
P.O. Box 6898  
Elmendorf, AFB, Alaska 99506-6898

Re: No DOD Action Indicated for PCB Contamination at Pedro Dome Radio Relay Station,  
Fox, Alaska

Dear Mr. Haviland:

This letter is in reference to the former Pedro Dome Radio Relay Station (RRS), a Formerly Used Defense Site previously operated by the US Army Corps of Engineers (Corps) as a military communication facility between 1958 and 1984. Operation of this facility caused soil to become contaminated with polychlorinated biphenyls (PCBs) and other contaminants. The Alaska Department of Environmental Conservation (ADEC) has determined that no further action is required to address PCB contamination at this site and that No Department of Defense Action is Indicated (NDAI).

#### **Site Background**

The Pedro Dome RRS was opened in 1958 and was incorporated into the Ballistic Missile Early Warning System in the 1960s. Operations ceased in 1984 and the site is currently used by AT&T Alascom as a repeater station for cell phone transmissions. The site is located at the summit of Pedro Dome, approximately 18 miles north of Fairbanks, Alaska and approximately 2.5 miles west of Mile Post 20.3 on the Steese Highway. The Fairbanks North Star Borough (FNSB) Property Database indicates that the site address is 1440 Pedro Dome Road, and the legal description is NW 1/4 of Section 2, Township North, Range 1 East, Fairbanks Meridian. The FNSB Property Database lists this property as parcel #0422347 and identifies the current property owner as ALASCOM, Inc., P.O. Box 7207, Bedminster, NJ, 07921-7207. The site occupies approximately 25 acres and is completely surrounded by a 3,265 acre parcel of undeveloped land owned by the State of Alaska. The site is generally unoccupied, although AT&T Alascom maintains a non-resident work force of one to two employees. The nearest population center is Fox, located at Mile Post 11 of the Steese Highway. According to a US Army Corps of Engineers Site Visit Report, there were 10 to 12 dwellings about 2 miles from the site in 1997. Most of the dwellings did not appear to be permanent residences.

Pedro Dome soils consist of 3 to 4 feet of surficial till overlying several feet of weathered granodiorite bedrock. At 7 to 8 feet below ground surface, the bedrock shows no evidence of fractures. Surface water is not present. The depth to groundwater is not known, but it is likely that it is at least 100 feet below the summit elevation of 2,600 feet. Anecdotal information from former residents of the Cleary Summit Subdivision, which is located about 6 miles to the southwest<sup>56</sup>, indicate that groundwater is present at a depth of approximately 150 to 200 feet below ground surface in the subdivision. A few wells in this subdivision are the closest potential drinking water sources to Pedro Dome.

### **Remedial History**

Soil around a former above-ground water storage tank, pump house, and drainage swale was contaminated with PCBs due to leaking, PCB-containing, heating elements in the water storage tank. The Corps removed PCB-contaminated soil in this area on three separate occasions. A total of approximately 800 cubic yards were eventually removed and disposed of at an EPA-permitted landfill in Grandview, Idaho (EnviroSafe Services). During the final removal, soil was excavated until bedrock was encountered. The final excavations were mostly back-filled with soil from off-site, however, some of the on-site soil that was used as backfill contained low concentrations of PCBs. Following the final removal, six surface samples and eighteen subsurface samples were collected and analyzed for PCBs. Two surface samples exceeded ADEC's cleanup level of 1.0 mg/kg (2.29 and 3.28 mg/kg). Subsurface concentrations ranged between non-detect to a maximum of 7.16 mg/kg, with an average of 3.1 mg/kg. The excavated area around the former water tower encompasses approximately one quarter of an acre. (See Attachment 1.)

The Department has received the *FUDES No DoD Action Indicated (NDAI)—Category IV* report dated June 25, 2003, and the *FUDES Site Closeout Report*, dated March 27, 2002, for this site. These documents present the results of a risk analysis for residual PCB contamination. This risk analysis was accepted by the Environmental Protection Agency (EPA) Region X in a letter dated April 17, 2002. (See Attachment 2.) This evaluation used 2.8 mg/kg (95% upper confidence limit [UCL]) as the exposure point concentration (EPC) and evaluated ingestion and inhalation of PCBs for adults and children in a residential scenario. This number was derived using surface and subsurface data. All soil was treated as surface soil in the evaluation and calculation of the EPC. The calculated cumulative cancer risk was  $7 \times 10^{-6}$ , which is below the ADEC standard of  $1 \times 10^{-5}$ , and the input parameters were more conservative than the expected future industrial land use scenario. The calculated cumulative hazard index (HI) was 1.4, which exceeds the ADEC standard of 1.0. ADEC currently requires the use of two significant figures when reporting an HI whereas the EPA requires the use of only one. The Corps requested that ADEC accept the results of this risk analysis and close the site.

The Department contracted Oasis Environmental (Oasis) to determine if this risk analysis is consistent with ADEC's and EPA's guidance regarding calculation of an HI and to determine if the statistical approach and conclusions are valid. Please see Attachment III for a copy of Oasis' findings. To summarize, Oasis pointed out that for non-parametric datasets with  $\geq 50$  samples and data that are highly skewed and do not fit a normal, gamma, or lognormal distribution, the EPA recommends that the 97.5% Chebyshev UCL be used. For the dataset that was used to calculate the EPC for Pedro Dome, the 97.5% Chebyshev (mean, SD) UCL is 2.24 mg/kg, instead of the 2.8 mg/kg presented in the Corps' report. If only surface soils are

evaluated (with substitution of ½ of the method detection limit for non-detects), the data follow both a lognormal and gamma distribution, which allows for use of the gamma model to compute the 95% UCL. With this approach, the 95% UCL is 1.11 mg/kg and the cumulative HI for exposure via inhalation and ingestion is 0.57, which is below ADEC's standard of 1.0.

Although not part of ADEC's contract with Oasis, Oasis noted that in the earlier risk analysis, the dermal contact pathway was considered incomplete because the cooler temperatures typical of this region are "not conducive to short sleeves and pants." Oasis provided another HI calculation with the assumption that the dermal contact pathway is complete. This calculation resulted in an HI of 0.78, which is still below the ADEC standard of 1.0.

### **Exposure Pathways**

Remaining PCB contamination is located primarily in subsurface soils and this remote site has been designated for industrial use in the foreseeable future (a cell phone repeater station), therefore, human ingestion, inhalation and dermal exposure to this soil are unlikely. Remaining contamination does not affect groundwater quality, and removal of the majority of source soils prevents additional future contamination. In light of these facts and results of the risk analysis, the Department has determined that remaining contamination does not present an unacceptable risk to human health or the environment.

### **Determination**

The investigation and cleanup actions for PCB contamination at the FUDS Pedro Dome RRS have met all requirements specified in 18 AAC 75 Article 3 - Discharge, Reporting, Cleanup, and Disposal of Oil and Other Hazardous Substances. Based upon the information provided by your consultants regarding groundwater and land use at the site and in the surrounding area, and the fact that a risk analysis demonstrates that remaining contamination does not pose an unacceptable risk, the Department has determined that **No DOD Action Indicated** is appropriate for this site. Because residual PCB contamination is above the most stringent ADEC cleanup level of 1.0 mg/kg, this site will be given a **Conditional Closure** in ADEC's Contaminated Sites Database with a notation that no soil from this site will be excavated or removed without notification and approval by the Department.

This conditional closure applies only to the Pedro Dome Radio Relay DERP site, ADEC file number 100.38.106, RecKey number 198631X927901. Since other contamination not related to the PCB contamination described in this letter is being managed by the previous property owner (ScottishPower Holdings, Inc., a private company based out of Portland, OR), a new site has been created in ADEC's Contaminated Sites Database. This site is referred to as AT&T Alascom Pedro Dome Repeater Site, ADEC file number 100.38.202, RecKey number 1987310100101. The current ADEC project manager for the privately owned, AT&T Alascom Pedro Dome Repeater Site is Ms. Deborah Williams. The file number for the Pedro Dome site has been changed to 108.38.202, RecKey number 1987310100101. Ms. Williams can be reached at (907) 451- 5174 or at Deborah\_Williams@dec.state.ak.us.

### **Closure**

In accordance with 18 AAC 75.380(d)(1), additional investigation and cleanup may be required if new information is discovered which leads ADEC to determine that remedial actions

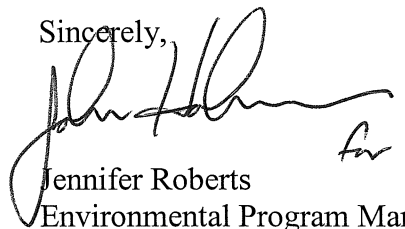
described in this decision are not protective of human health, safety, and welfare or the environment.

### **Appeal**

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 — 18 AAC 15.310 or an informal review by the Division Director in accordance with 18 AAC 185 — 18 AAC 15.190. Informal review requests must be delivered to the Director of the Division of Spill Prevention and Response, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days of receipt of this letter. 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 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.

Thank you for your efforts to address contamination at this site. If you have any questions regarding this site, please contact Sharon Richmond at (907) 451-2158 or via email at [sharon\\_richmond@dec.state.ak.us](mailto:sharon_richmond@dec.state.ak.us) or Ms. Williams at the contact information given above.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Roberts", with a small "for" written below it.

Jennifer Roberts  
Environmental Program Manager

cc: Deborah Williams, ADEC  
Alex Tula, Alta Geosciences  
Jon Michael Luce, Scottish Power Holdings, Inc.