

STATE OF ALASKA

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

SEAN PARNELL, GOVERNOR

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File Nos. 1525.26.027 and 1525.38.018

December 17, 2009

Mr. Mark Ridgway
United States Coast Guard
Civil Engineering Unit Juneau
Post Office Box 21747
Juneau, Alaska 99802-1747

Re: USCG Air Station Sitka and USCG Japonski Island Technician Shop
Site Closure Determination

Dear Mr. Ridgway:

The Alaska Department of Environmental Conservation (DEC) has received and reviewed the *Final Underground Storage Tank Removal Closure Report* for the United States Coast Guard (USCG) Air Station Sitka site, prepared by North Wind and dated August 2009. The report is approved in accordance with 18 Alaska Administrative Code 78.

In June 2009, a 610-gallon regulated underground storage tank was removed. The excavation was advanced to 15' by 15' and to groundwater at a depth of 8'. Five (5) confirmation samples were collected and analyzed for diesel-range organics with the highest concentration found being 240 milligrams per kilogram (mg/kg) adjacent to the fuel fill pipe. All of the sample results were below the DEC-approved cleanup levels for the entire USCG Sitka Base of 2300 milligrams per kilogram (mg/kg) diesel-range organics. No soil was removed. No action was required.

In a letter dated December 10, 2007, DEC notified you as to its approval of the *2007 Removal Action Report* and of the subsequent requirements for closure for the USCG Air Station Sitka and USCG Japonski Island Technician Shop sites. A copy of this letter is enclosed. Prior to DEC being able to make a closure determination on these sites, DEC needed to obtain documentation that an institutional controls tracking system would ensure that 1) soils containing concentrations of contaminants of concern above the most stringent default pathways present at these sites cannot be moved off the USCG Sitka Base without DEC approval, 2) if the asphalt at the sites is removed and contaminated soil is found, DEC would be notified and the soil managed in accordance with regulation and guidance, and 3) groundwater wells cannot be installed to use the groundwater for drinking water.

Mr. Mark Ridgway
USCG Air Station Sitka and Japonski Island Technician Shop

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To date, DEC has not been informed that the USCG has developed a tracking system for institutional controls. On July 24, 2009, DEC adopted a new policy for site closure. A copy of the memorandum is located on our website at the following link, <http://www.dec.state.ak.us/spar/csp/guidance/closurememo.pdf>. According to our new policy, for sites with lower-level petroleum soil contamination where groundwater is not contaminated, DEC is able to issue a closure determination without the USCG having established an institutional controls tracking system. As the cleanup level for this site exceeds DEC's default cleanup level, the USCG still needs to place an institutional control which outlines the area of remaining contamination and ensures that the contaminated soil will be managed in accordance to DEC guidance and regulations. Although the site cleanup levels were based upon a determination that groundwater is not a current or future source of drinking water, groundwater contamination was not found at either of these sites. Furthermore, even though the USCG facility is supplied with municipal water, the USCG needs to ensure that no drinking water wells are installed.

DEC has determined that both the USCG Air Station Sitka and Japonski Island Technician Shop sites can be closed.

Please note that if in the future additional contamination is found to be present that may pose an unacceptable risk to human health, safety, welfare or the environment, it must be reported to the department and additional cleanup may be required.

If you have any questions about these sites, please do not hesitate to contact me 766-3184.

Sincerely,



Anne Marie Palmieri
Environmental Program Specialist

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December 10, 2007

Mr. Mark Ridgway
United States Coast Guard
Civil Engineering Unit Juneau
Post Office Box 21747
Juneau, Alaska 99802-1747

Re: USCG Air Station Sitka and USCG Japonski Island Technician Shop
Removal Action Report Approval and Requirements for Closure

Dear Mr. Ridgway:

The Alaska Department of Environmental Conservation (department) has received and reviewed the *Underground Storage Tank Cleanup Site and EM/BT Building 2007 Removal Action Report*, prepared by Jacobs Engineering and dated November 2007. This report is approved in accordance with 18 Alaska Administrative Code (AAC) 75.380.

The United States Coast Guard (USCG) Air Station Sitka and USCG Japonski Island Technician Shop sites are both located on the USCG Air Station Sitka facility on the northern part of Baranof Island.

Cleanup Levels

Cleanup levels for both sites were approved by a letter from the department dated June 5, 2006. In that letter, the department documented a determination that the groundwater at the site is not a current or reasonably expected future source of drinking water as defined by the criteria set forth in 18 AAC 75.350. In accordance with 18 AAC 75.345(b)(2), groundwater cleanup levels were set a 10-times those of 18 AAC 75.345, Table C, specifically: diesel range organics: 15 milligrams per Liter (mg/L). The migration to groundwater pathway soil cleanup levels were recalculated using the higher groundwater cleanup level values yielding alternative pathway levels of 10-times those in 18 AAC 75.341, Tables B1 and B2. The approved soil cleanup levels are the most stringent value of the revised migration to groundwater pathway, ingestion pathway, or inhalation pathway; specifically: diesel-range organics: 2300 milligrams per kilogram (mg/kg), residual-range organics: 8300 mg/kg.

USCG Air Station Sitka

In 1992, the USCG removed an oil-water separator and associated subsurface containment tank

and seven (7) underground storage tanks. Contaminated soil was found to be present and 600 cubic yards of petroleum contaminated soil was excavated and treated with a rotary kiln. Seven (7) groundwater monitoring wells were installed and showed concentrations of diesel-range organics from non-detect to 110 mg/L in MW-3. Eighteen (18) test pits were advanced to determine the extent of contamination and concentrations of diesel-range organics up to 33,000 mg/kg were found.

The groundwater monitoring wells were sampled semi-annually to determine a contaminant trend. In 1996, passive air blowers were installed at all monitoring wells to encourage natural attenuation of the contamination. Sample results from the last sampling event in November 1998 showed that only the sample from MW-3 showed an elevated concentration of diesel-range organics at 2 mg/L, all other samples were below the default cleanup level of 1.5 mg/L. All samples were below the alternative cleanup level for diesel-range organics of 15 mg/L.

In 2007, three (3) test pits were advanced in the areas of the 1992 sample locations which had not been covered with asphalt. Elevated field screening readings were found in one (1) test pit and 41 tons of petroleum contaminated soil was excavated. Six (6) confirmation samples were collected from the excavation floor and the sidewalls with the highest concentration detected of diesel-range organics of 1800 mg/kg and concentrations of all polycyclic aromatic hydrocarbons detected below their respective cleanup levels.

A small lagoon is present next to the road and is not connected to any marine or fresh water. From 1994 to 1999, samples were collected of the surface water and sediment in the lagoon and analyzed for diesel-range organics. The department does not have surface water and sediment screening values for diesel-range organics, therefore in 2007, a surface water sample was collected and analyzed for benzene, ethylbenzene, toluene, and xylenes and polycyclic aromatic hydrocarbons in order to calculate total aromatic hydrocarbons and total aqueous hydrocarbons. The sample result showed a total aromatic hydrocarbon value of 0.1 ug/L and a total aqueous hydrocarbon value of 1 ug/L; well below the 18 AAC 70 respective Alaska Water Quality Standards of 10 ug/L and 15 ug/L.

Japonski Island Technician Shop (aka EM/BT Shop)

Historic diesel contamination was found near an aboveground heating oil tank at the Electrician's Mate/Boiler Technician (EM/BT) Shop in July 1999. The contamination was located below the secondary containment which had been in place since the 1980s. Site characterization samples showed that the contamination was fairly limited in extent, estimated to be less than 100 cubic yards, with diesel-range organic concentrations up to 390 mg/kg in four sample location and 4500 mg/kg in one location. No additional action was taken at this site until the 2007 fieldwork.

In 2007, two test pits were advanced in the area where the highest concentrations of contamination were found in 1999. The test pits were advanced to three feet and five feet below ground surface, respectively, where bedrock was encountered. Two samples were collected close to the bedrock surface where the field screening indicated that the levels of contamination were highest and diesel-range organics concentrations were found up to 2200

mg/kg. No soil was excavated at this site as all samples met the alternative cleanup levels.

Requirements for Closure

The department has determined these sites can be conditionally closed. However, in order to conditionally close them, the department requires that an institutional control tracking system be in place in order to document that: 1) soils containing concentrations of contaminants of concern above the most stringent default pathways are present at these sites and cannot be moved off the Sitka Base without department approval, 2) if the asphalt at the sites is removed and contaminated soil is found, the department must be notified and the soil managed in accordance with regulation and guidance, and 3) groundwater wells cannot be installed to use the groundwater for drinking water.

If you have any questions about these sites, please do not hesitate to contact me 766-3184.

Sincerely,



Anne Marie Palmieri
Environmental Program Specialist

cc: Colin Craven, DEC-Fairbanks