

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

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

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<http://www.state.ak.us/dec/home.htm>

November 20, 2009

File no.: 1529.38.018

Mr. Michael Wilcox
United States Forest Service
Post Office Box 21628
Juneau, Alaska 99802

Re: Anita Bay Shop and Camp, rekey: 2005130922301
Site Closure Determination

Dear Mr. Wilcox:

In a letter dated March 20, 2007, the Alaska Department of Environmental Conservation (DEC) notified you as to its approval of the Interim Removal Action Report and of the subsequent requirements for closure for the Anita Bay Shop and Camp site. A copy of this letter is enclosed.

As outlined in this letter, the only requirement that the US Forest Service needed to complete prior to DEC being able to make a closure determination was the inclusion of this area as containing residual contamination on the US Forest Service's geographic-information system (GIS)-land management system in order to ensure the appropriate protection of the area in the future. To date, DEC has not been informed that this has occurred.

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, DEC is able to issue a closure determination without the US Forest Service having previously placed the site on its land management system.

As the cleanup level for this site exceeds DEC's default cleanup level, the US Forest Service still needs to place an administrative site control on its GIS- land management system which outlines the area of remaining contamination. The in-situ and former biocell contaminated soil must be managed in accordance with criteria the Forest Service's April 25, 2001 method 3 waiver of notification of future movement of the soils.

DEC has determined that the Anita Bay Shop and Camp site can be closed. Results of all confirmation samples collected following the removal showed that all of the concentrations of contaminants of concern are below their respective cleanup levels.

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.

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If you have any questions about this site, please do not hesitate to contact me at 766-3184.

Sincerely,



Anne Marie Palmieri
Environmental Program Specialist

Enclosure

CC: Michele Parker, US Forest Service – Petersburg

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

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March 2, 2007

File no.: 1529.38.018

Mr. Michael Wilcox
United States Forest Service
Post Office Box 21628
Juneau, Alaska 99802

Re: Anita Bay Shop and Camp, rekey: 2005130922301
Approval of Interim Removal Action and Requirements for Closure

Dear Mr. Wilcox:

The Alaska Department of Environmental Conservation (department) has completed the review of the *May 2006 Trip/Interim Report* for the Anita Bay Shop and Camp, prepared by Nortech Environmental Engineering and Industrial Hygiene (NORTECH) and dated September 19, 2006. The department has no comments on this report and approves it in accordance with 18 Alaska Administrative Code (AAC) 75.330. The delay in the review and approval of this report was due to previously discussed budgetary reasons. In consideration of United States Forest Service (Forest Service) field work schedule requirements, the department provided a limited review of this report and gave a non-objection determination for the dismantling of the groundwater monitoring wells and the biocell. This determination was documented in an email dated September 27, 2006.

The department has also received and reviewed the *October 2006 Trip/Interim Report and Project Closeout*, prepared by NORTECH, dated November 30, 2006, and provided to the department by electronic mail message dated January 31, 2007.

The Anita Bay Shop and Camp site is located at Starfish Cove on Etolin Island in the Tongass National Forest near Wrangell. Log transfer facilities were established in 1983 on both the northern and southern sides of Anita Bay. The land-based camp was located on the northern side and operated from 1983 to 1999. Previous site visits and a 2000 Baseline Site Assessment delineated areas of concern, specifically a former fuel depot, former generator area, former shop area, and areas of stained soil.

In 2005, site characterization activities were conducted to determine the nature and extent of contamination at each potential area of concern. Six (6) trenches were advanced with 17 soil samples were collected and two (2) prepacked monitoring groundwater wells were installed, but not developed or sampled. The department reviewed the *Site Characterization Report* and approved it in a letter dated April 7, 2006. The department also requested additional actions be conducted as outlined below.

Former Fuel Depot – Visibly contaminated soil was present in the trench at 5.5 feet bgs, in the

groundwater smear zone, overlain by clean overburden. Three (3) samples were collected with only one having an exceedence of the diesel-range organics cleanup level. A monitoring well was placed in the eastern end of the trench, but not sampled. As neither the duplicate sample of the sample with the exceedence exceeded the cleanup level, nor did the average of the two samples exceed the cleanup level, the department determined that if the groundwater sample collected from the nearby monitoring well contained a concentration of diesel-range organics below the groundwater cleanup level, no additional cleanup would be necessary.

Former Generator Area – Two (2) trenches were advanced in the area of the former generator and seven (7) samples were collected. Visibly contaminated soil was present and buried debris and drums were found. Diesel-range organics, with a high of 7700 mg/kg, and residual-range organics, with a high of 8500 mg/kg, were the only contaminants of concern detected at concentrations exceeding the approved cleanup levels with the exception of a slightly elevated chromium concentration. A monitoring well was installed in the eastern end of one of the trenches, but not sampled. The department approved the proposed corrective action plan for this area and the construction of an on-site bioremediation cell. The department also requested the collection of soil samples for the speciation of chromium and groundwater samples for diesel-range organics and residual-range organics from the monitoring well.

Former Shop Area – One (1) trench was advanced approximately 90 linear feet and to a depth of 4 feet bgs. Visibly contaminated soil was present. Three (3) samples were collected with diesel-range organics, with a high of 370, being the only potential contaminant of concern to exceed the department's default cleanup levels, with the exception of two (2) slightly elevated chromium results. Three (3) shorter trenches were advanced to the west of the larger trench and two (2) samples were collected with diesel-range organics up to 12,000 mg/kg was found to be present. The department again approved the proposed corrective action plan for this area and requested the collection of soil samples for the speciation of chromium.

Stained Surface Soil – Surface soil stained by petroleum hydrocarbons was found to be present in limited extents in the vehicle parking and boneyard areas. No analytical samples were collected. The department approved the proposed limited excavation and sampling for this area.

Cleanup Levels

Cleanup levels were approved by the department in a letter dated April 7, 2006. A site-specific concentration of fractional organic carbon was used to calculate method three soil levels for petroleum hydrocarbons. Approved soil cleanup levels are: diesel-range organics: 4300 mg/kg; residual-range organics: 8300 mg/kg; hexavalent chromium: 23 mg/kg, and trivalent chromium: 120,000 mg/kg. Groundwater cleanup levels are listed in 18 AAC 75.345, Table C.

May 2006 Interim Removal Actions

Former Fuel Depot – A groundwater sample was collected from the monitoring well and a diesel-range organics analytical result of 0.12 milligrams per liter (mg/L) was obtained; significantly lower than the cleanup level of 1.5 mg/L. No additional work is needed in this area.

Former Generator Area – Approximately 300 – 325 cubic yards of contaminated soil was removed in this area. The soil was screened and the material greater than 2-inches in diameter was returned to the excavation as backfill material and the 150 – 185 cubic yards of finer material was placed in the prepared biocell. Seven (7) samples were collected for petroleum analysis with one (1) of those samples analyzed for speciated chromium. The highest concentration reported for diesel-range

organics was 850 mg/kg, residual-range organics was 330 mg/kg, trivalent chromium was 8 mg/kg and hexavalent chromium was non-detect. An unspecified volume of buried drums and equipment debris was removed and disposed of at the Wrangell Landfill. A groundwater sample was collected from the monitoring well where a diesel-range organics result of 0.16 mg/L and residual-range organics result of non-detect were obtained.

Former Shop Area – Approximately 60 – 70 cubic yards of contaminated soil was excavated and, after screening, 25 – 30 cubic yards of the finer material was placed in the biocell. Six (6) samples were collected for petroleum analysis with one (1) of those samples analyzed for speciated chromium. The highest concentration reported for diesel-range organics was 470 mg/kg, residual-range organics was 1300 mg/kg, trivalent chromium was 27 mg/kg and hexavalent chromium was non-detect.

Stained Surface Soil – Stained areas were excavated to depths of 6-12 inches with the excavated soil screened and five (5) cubic yards of finer material placed in the biocell.

Biocell – All of the material less than 2-inches in diameter was placed in a biocell near the western edge of the site and 2000 pounds of fertilizer was added to encourage the natural degradation of the petroleum. Six (6) samples were collected and analyzed for diesel-range organics and residual-range organics with the highest detected concentrations of 2100 mg/kg and 2300 mg/kg, respectively.

October 2006 Activities

In October 2006, the two (2) groundwater monitoring wells were decommissioned. The biocell was also decommissioned by grading the berm and biocell edges to blend it into the site contours. There were no liners associated with the biocell.

Requirements for Closure

There is only one remaining action which needs to be taken at this site before the department is able to make a determination for conditional closure. As the cleanup level for this site exceeds the department's default cleanup level, the Forest Service needs to place an administrative site control on its geographical information system (GIS) land management system which outlines the area of remaining contamination. The in-situ and former biocell contaminated soil must be managed in accordance with criteria the Forest Service's April 25, 2001 method 3 waiver of notification of future movement of the soils. Following the receipt of documentation of the administrative site control, the department will issue a conditional closure letter for the Anita Bay Shop and Camp site.

If you have any questions about this site or these comments, please do not hesitate to contact me at 766-3184.

Sincerely,



Anne Marie Palmieri
Environmental Program Specialist