Next RAB Meeting

The next Fort Richardson RAB meeting has been scheduled for Thursday, January 25, 2001, at the Russian Jack Chalet. The meeting is open to the public and is scheduled from 6:00 to 8:00 p.m.

If you have any questions, please contact Mark Prieksat at (907) 383-3042 or mark.prieksat@richardson.army.mil.

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Environmental Restoration News

U.S. Army Alaska — Fort Richardson

Anchorage, Alaska — January 2001 — Volume 7, Number 1

In This Issue...

Army Mourns Death of OU-C Project Manager

Laurie Angell, a manager for the Eagle River Flats (Operable Unit C [OU-C]) project, passed away unexpectedly on Monday, January 1, 2001, due to complications from staphylococcal pneumonia. Laurie worked as a biological technician in the Natural Resources Branch of the Directorate of Public Works' Environmental Resources Department and was a crucial part of the Eagle River Flats project.

Laurie Angell

Laurie was instrumental in the ongoing success of the Eagle River Flats cleanup. She organized and spearheaded the tremendous logistical requirements for each year's remediation effort and coordinated the efforts of federal, state, and military organizations, ensuring unity of purpose and cost-effective operations. Laurie's technical and managerial skills, coupled with her ever-present positive outlook and optimism, served the Army well, and she made everyone who had the privilege to work with her a better person.

Despite her busy schedule with OU-C, Laurie routinely participated in outreach programs to help the local community, especially school children, better understand the Army's cleanup work at Fort Richardson, and she would readily share her vast understanding and passion for animals and their welfare. Laurie was well known for her love and care of animals and her ability to save lost, abused, and abandoned pets. She dedicated her life and most of her financial resources to caring for unwanted and injured animals. We will miss Laurie, not only for her diligent hard work, but for her kind heart and willingness to help those in need.

Two-Party Agreement Sites

Acronyms

OU
Operable Unit

RRTS
Roosevelt Road Transmitter Site

RRFTA
Ruff Road Fire Training Area

POL
Petroleum, oil, and lubricants

ROD
Record of Decision

ADEC
Alaska Department of Environmental Conservation

PCB
Polychlorinated biphenyl

Former Operable Unit A Two-Party Agreement Sites

Operable Unit A (OU-A) originally was made up of three sites; Roosevelt Road Transmitter Site (RRTS), Ruff Road Fire Training Area (RRFTA), and the petroleum, oil, and lubricants (POL) Laboratory Dry Well. The OU-A Record of Decision (ROD) was signed in 1997. The ROD determined that the principal contamination at the OU-A source areas was petroleum in soil that did not pose an unacceptable risk to human health. Because levels of contamination exceeded Alaska Department of Environmental Conservation (ADEC) cleanup criteria, further cleanup was pursued under the State of Alaska-Fort Richardson Environmental Restoration Agreement (Two-Party Agreement).

Roosevelt Road Transmitter Site

The RRTS is located north of the main cantonment area and includes an underground communications bunker used during World War II and the Korean War. Vandalism of several transformers at the facility resulted in polychlorinated biphenyl (PCB) contamination of soil at the site. The PCB spill was further complicated when diesel fuel was used to wash PCB-containing oil from the concrete building foundation of the former transmitter building. As part of the remedial effort, approximately 750 tons of PCB- and petroleum-contaminated soil was removed from the site. It has been determined that this site requires no further remedial action, and land use controls are in place to prohibit unwarranted use of the site.

Two-Party Agreement Sites *(Continued from Page 1)*

Ruff Road Fire Training Area

The RRFTA began operations during the initial establishment of Fort Richardson in 1940 and was used until about 1980. The site was used to conduct training for fire and rescue crews. When Ruff Road was constructed in 1991, the charred debris associated with the site was removed. It is estimated that over 85,000 gallons of jet fuel, waste oil, diesel, brake fluid, and solvents were burned in the fire circle over the training area's 40-year life span. The Remedial Investigation (RI) report indicated that surface water and groundwater have not been impacted by activities at the site. A leachability study conducted during the RI showed that contaminants at the site would migrate only 10 vertical feet from their present location over a 90-year period. However, because of soil contamination, a soil vapor extraction (SVE) treatment system design and verification study using bioventing was initiated in 1998 and was completed in 1999. Confirmation soil sampling was conducted during November 1999, and the report is currently being finalized. The confirmation soil sampling indicated that only one sample result exceeded the ADEC Method Two cleanup levels. The report will be forwarded to ADEC for comment, and the Army is requesting that the site be closed requiring no further remedial action.

POL Laboratory Dry Well

The POL Laboratory Dry Well is located at the intersection of Loop Road and Warehouse Street, which is on the northern end of the main cantonment area. The dry well was approximately 15 feet from the southeast side of Building 986, 4 feet in diameter, and approximately 15 feet deep. The laboratory began operations in the mid-1950s and provided analyses of various fuels used by the military to assure overall and arctic grade quality were maintained. A sink in the laboratory was connected directly to the well and is suspected to be the source of POL contamination in the dry well.

Initial concern centered on potential groundwater contamination with heavy metals, solvents, and petroleum; however, RI results indicate that groundwater contamination has not occurred. Contamination was limited to dry well sludge and approximately 230 cubic yards of soil beneath and around the well. The dry well and soil/sludge were removed, and SVE remediation of contaminated soil commenced in 1998. In August 1999, confirmation soil samples were collected to determine the level of contamination remaining after 1 year of SVE operation. Gasoline range organics (GRO) were detected in 10 of the 15 samples, but only 4 samples exceeded the ADEC cleanup level of 500 milligrams per kilogram (mg/kg). Diesel range organics (DRO) were detected in 14 of the 15 samples, and 5 samples exceeded the regulated limit of 1,000 mg/kg. Based on confirmation sample results, ADEC approved a switch from SVE to bioventing for the fiscal year 2000. Additional confirmation soil samples were collected in September 2000, and results indicate an overall reduction of contaminant levels. However, the results will be further evaluated to determine potential actions at the site.

Other Two-Party Agreement Sites

Nike Site Summit

Further work at the Nike Site Summit is on hold awaiting funding in future years. A sampling and analysis plan (SAP) and a risk assessment work plan (RAWP) have been developed for the site. The SAP addresses collection of additional data needed to complete the risk assessment. It is likely that the SAP and RAWP will be modified at the time of implementation, which is currently planned for fiscal year 2003.

Building 987, Former Pump House and Aboveground Storage Tanks

The pump house and storage tanks were demolished in the fall of 1999. The site investigation conducted during the demolition detected what appeared to be residual contamination. Because the source of the contamination was suspect, a work plan was developed for collecting additional soil samples to confirm the extent of contamination. Additional drilling and sampling is expected to be performed during February 2001.

Acronyms

RI
Remedial Investigation

SVE
Soil vapor extraction

GRO
Gasoline range organics

mg/kg
Milligram per kilogram

DRO
Diesel range organics

SAP
Sampling and analysis plan

RAWP
Risk assessment work plan

The participating engineers, scientists, and remedial project managers reviewed all of the remediation data that was collected during the previous field season. The results of the pond pumping remediation were better than expected, despite the monthly flooding tides that occurred during the past summer. Tide gates, installed at the heads of the tidal gullies, kept high tides out of the treated ponds during June and July, greatly extending the remediation season. Two Area A ponds were found to be completely remediated based on extensive sediment sampling conducted at the end of the season. The pumps that were located in those ponds will be relocated to two other ponds next season. The large pond in Area C, the largest and most contaminated pond in Eagle River Flats, was determined to be almost completely remediated. However, this pond will be pumped for one more season to ensure complete remediation. In addition, pumping the large Area C pond helps drain several smaller contaminated ponds that are located nearby. Next year, six pump systems will again be deployed, one in Area A (a new untreated pond), three in Area C, and two in Area C/D (one of them in a new untreated pond).

Operable Unit D

The OU-D ROD was finalized and signed in September 2000, formally closing a number of source areas on Fort Richardson. However, the ROD identified two source areas, Building 796 (battery shop) and Building 955 (former sludge bin), that required additional sampling.

The contaminants of concern for the Building 796 source area are PAH and 2-dibromoethane (EDB). Remedial investigations during 1996 detected PAHs and EDB above the remedial goals. However, a sampling event conducted in the fall of 1999 did not detect EDB or PAHs in any of the groundwater samples. The initial detection of EDB is suspect because the method detection limit used in the analysis of EDB was greater than the remedial goals. Therefore the reported analytical value for EDB contamination was simply an estimate. In addition, PAHs have been detected on an irregular basis, leading to problems assessing groundwater quality. Because of the infrequency in detecting groundwater contamination at the site, the Army agreed to conduct an additional groundwater sampling event. Preliminary groundwater results indicate that concentrations of volatile organic compounds (VOCs such as carbon tetrachloride), DRO, EDB, and metals are all less than the remedial goals. Results from the PAH analysis are not available yet, but are expected to be available by the end of February. If the PAH results are less than the remedial goals, the site will be closed and documented in the OU-E ROD.

The contaminant of concern for the Building 955 source area is DDT (dichlorodiphenyltrichloroethane). DDT was detected during a 1995 investigation, and the Army performed a source removal. However, confirmation sampling using immunoassay test kits indicated that DDT concentrations at the site were above the risk-based level of 17 parts per million (ppm). Because the immunoassay tests could not provide an accurate analytical value for the concentration of DDT at the site, the Army agreed to perform additional sampling as stipulated in the ROD. The preliminary sample results indicate that DDT contamination at the site is less than the risk-based level of 17 ppm. A draft confirmation sampling report is expected to be available by the end of January. If the DDT levels are less than the risk-based levels, the site will be closed and documented in the OU-E ROD.

Operable Unit E

The Army, U.S. Environmental Protection Agency (EPA), and State met in October and again in November to set a schedule for OU-E and to discuss potential pre-RI fieldwork. A pre-RI work plan has been developed to install groundwater monitoring wells and drill soil borings at the Armored Vehicle Maintenance Area. The pre-RI work may also include further geophysical investigation in an attempt to determine what type of solid waste is buried at the site (drums, scrap metal, etc). The pre-RI fieldwork will help determine contaminants of concern and further delineate the site prior to developing the OU-E Management Plan. The Army expects to have preliminary results from the pre-RI fieldwork by the end of February.

The scope of work (SOW) for the OU-E Management Plan is being developed, and the scope is expected to be ready for distribution by the end of January. Once the SOW is available, development of the OU-E Management Plan will begin. The draft Management Plan is expected to be completed by late spring.

Acronyms

CAIS
Chemical agent identification sets

RAB
Restoration Advisory Board

EDB
2-Dibromoethane

VOC
Volatile organic compounds

DDT
Dichlorodiphenyltrichloro-ethane

ppm
Parts per million

EPA
U.S. Environmental Protection Agency

SOW
Scope of work