

Marine Corps Base Camp Lejeune Restoration Advisory Board Meeting Minutes

RAB Meeting: May 4, 2006

ATTENDEES: Robert Lowder/MCB Camp Lejeune Laura Bader/RAB Co-Chair
Rich Cheng/MCB Camp Lejeune Norman Bryson/RAB Member
Daniel Hood/NAVFAC Atlantic Ray Humphries/RAB Member
Gena Townsend/USEPA Region IV Richard Mullins/RAB Member
Randy McElveen/NC DENR Marvin Powers/RAB Member
Matt Louth/CH2M HILL Cynthia Rester/RAB Member
Chris Bozzini/CH2M HILL
Donna Laudermilch/CH2M HILL

FROM: Donna Laudermilch/CH2M HILL

DATE: June 5, 2006

LOCATION

Coastal Carolina Community College, Continuing Education Building, Room 103 in
Jacksonville, North Carolina

MINUTES

6:00 PM

I. Welcome and Introductions

II. IR Site Status Presentation

Objective: The purpose of this discussion was to present an update on the status of all the IR sites on Base. Mr. Chris Bozzini from CH2M HILL led this discussion.

Overview:

There are 22 operable units at MCB Camp Lejeune, which can be categorized as following:

- 8 operable units have been closed;
- 2 operable units have active remediation systems;
- 3 operable units are undergoing long-term monitoring only; and
- 9 operable units are part of on-going investigations.

The majority of the operable units are located at Mainside and Camp Geiger.

The eight closed operable units include OU 3, OU 4, OU 7, OU 8, OU 9, OU 11, OU 13, and OU 17. Remediation has been completed at these units and no contamination exists above the regulatory limits.

The two operable units with active remediation systems are OU 1 and OU 2. OU 1 is the Old Parade Ground and includes Sites 21, 24, and 78. There are currently two groundwater pump and treat systems at Site 78. OU 2 includes Sites 6, 9, and 82. A groundwater pump and treat system is currently located at Site 82. These Sites are also part of the long-term monitoring program to track the progress of the remedial systems.

Mr. Mullins raised the question whether closed operable units are ever investigated after they have been closed. CH2M HILL representative, Mr. Bozzini, indicated that once a site has been remediated, and four consecutive monitoring events have shown no contaminants are present above the regulatory limits, the site is not re-visited. According to Mr. Lowder, some sites have been investigated and no contamination was identified. However, due to the known historical use of the site, land use controls are put in place (e.g., former dump site at Site 68).

The three operable units undergoing long-term monitoring include OU 5 (Site 2), OU 6 (Site 36), and OU 12 (Site 3). The progress at these sites is documented in annual reports and evaluated through the five-year review. These sites will be closed after four consecutive rounds of monitoring, in which concentrations of contaminants are below the regulatory standards

The active operable units include the following:

1. OU 10, Site 35 – Camp Geiger Area Fuel Farm
 - Operable Unit 10 is located at Camp Geiger.
 - The primary contaminant is trichloroethene (TCE).
 - An Interim Record of Decision (IROD) was completed in 1994 and 1995.
 - A pilot study using in situ chemical oxidation was completed in 2005.
 - Additional delineation of the groundwater contamination is currently being completed.
 - The FY06 goal is to complete an addendum to the Remedial Investigation/Feasibility Study (RI/FS).
 - The FY07 goal is to complete the Record of Decision (ROD).
2. OU 14, Site 69 – Rifle Range Chemical Dump
 - Operable Unit 14 is located in the rifle range area west of the New River.
 - The primary contaminants are TCE and its daughter products (dichloroethene and vinyl chloride) as well as chemical warfare material (CWM), which was disposed of at the site (i.e., tear gas, test kits).
 - An IROD was completed in 2000.
 - The FY07 goal is to complete an Amended RI Report.
 - Once the TCE portion of the Site has been remediated, the Site will be transferred into the Munitions Response Program (MRP).

3. OU 15, Site 88 – Base Dry Cleaner
 - Operable Unit 15 is located Mainside.
 - The primary contaminant is tetrachloroethene (PCE).
 - A non-time critical removal action (NTCRA), which included soil mixing with zero valent iron addition in the source area, was completed in October 2005.
 - Additional delineation has been completed to the west of the source area.
 - The FY06 goal is to complete the RI/FS report.
 - The FY07 goal is to complete the ROD.
4. OU 16, Site 89 (Former DRMO) and Site 93 (Building TC-942)
 - Operable Unit 16 is located at Camp Geiger.
 - The primary contaminants are TCE and tetrachloroethane (PCA).
 - A NTCRA, which included electric resistive heating (ERH) was completed at Site 89 in 2004.
 - Currently the RI/FS for Site 89 is being completed, including an Ecological Risk Assessment (ERA).
 - A Draft ROD has been submitted for Site 93, which recommends chemical oxidation.
 - The FY06 goals are to complete the Site 89 RI/FS report and finalize the Site 93 ROD.
 - The FY07 goal is to complete the Site 89 ROD.
5. OU 18, Site 94 – PCX Service Station
 - Operable Unit 18 is located Mainside.
 - The primary contaminant is TCE.
 - A ROD for Site 94 is pending, which recommends no further action (NFA).
 - The FY06 goal is to finalize the ROD.
6. OU 19, Site 84 – Building 45 Area
 - Operable Unit 19 is located Mainside.
 - The primary contaminant is polychlorinated biphenyls (PCBs).
 - Currently, the site is undergoing a Phase 2 NTCRA, which includes excavation and offsite disposal.
 - The FY06 goal is to submit the ROD.
7. OU 20, Site 86 – Tank Area AS419 –AS421
 - Operable Unit 20 is located at the Air Station.
 - The primary contaminant is TCE.
 - A pilot study involving air sparging was completed in January 2006.
 - The FY06 goals are to complete the Addendum to the RI and complete the FS.
 - The FY07 goal is to complete the ROD.
8. OU21, Site 73 – Courthouse Bay Liquids Disposal Area
 - Operable Unit 21 is located at Courthouse Bay.
 - The primary contaminant is TCE.
 - A pilot study involving hydrogen sparging was completed in 2005.
 - The FY06 goal is to complete the RI/FS.

- The FY07 goal is to complete the ROD.

9. OU 22, Site 95 - Animal dipping vats

- Operable Unit 22 consists of three locations across the Base, historically used for farming.
- The primary contaminant has yet to be determined.
- The Operable Unit was historically used for livestock dipping vats.
- Site inspection activities are on-going.
- The FY06 goal is to complete a Site Inspection report.

During this discussion, Mr. Humphries asked whether the 40,000 acres at GSRA will be created into IR sites. According to Mr. Lowder, before GSRA was purchased, an Environmental Baseline Survey (EBS) was completed and any parcels that were potentially contaminated were not included in the purchase. Since its purchase, one site at GSRA has been designated a SWMU because someone dumped asbestos shingles.

Mr. Powers inquired about the new wells being installed near Birch Street (in the industrial area near the old Base gas station). According to NAVFAC representative, Mr. Daniel Hood, those wells are being installed as part of the UST program for a biopulse remediation system.

Ms. Rester inquired about activities at Building 25. According to CH2M HILL representative, Mr. Chris Bozzini, Building 25 was torn down to slab, the slab was then removed, and a remediation technology was implemented to treat the source area. The technology mixed in zero valent iron, which allows the contaminants to be broken down into non-hazardous compounds. The results have been very good, with approximately 90% reduction. The former Building 25 area is now a parking lot, and under the parking lot is a soil, clay, iron mixture. The dissolved contamination has extended approximately 1/2-mile downgradient (under the PMO and across the street). This contamination is still under investigation and the Remedial Investigation Report will be issued this year.

Ms. Rester then inquired about whether anything had been done to address contamination at the site on Camp Geiger that had burned down. According to Ms. Rester, it was a former dry cleaner. Ms Rester will find information on the general location of the dry cleaners and provide it to Mr. Lowder.

III. DoD Emerging Contaminants

Objective: The purpose of this discussion was to present an update on contaminants the DoD has identified as potential issues in the future. Mr. Robert Lowder led this discussion.

Overview: The DoD has begun identifying contaminants which are not currently regulated but may be in the future as well as contaminants which are currently regulated but may be subject to new regulatory standards in the future. The DoD team conducting this research is called the Materials of Evolving Regulatory Interest Team (MERIT), and is comprised of all DoD components and subject experts.

The DoD identified emerging contaminants as those covered under the Safe Drinking Water Act (SDWA) Unregulated Contaminant Monitoring Rule (UCMR). The RAB members were provided a copy of this list. To date, the DoD has required sampling of all contaminants

included in 'List 1'. Based on this sampling, the DoD identified perchlorate, 4,4'-DDE, dinitrotoluene (DNT), and methyl tert-butyl ether (MTBE) as emerging contaminants. MCB Camp Lejeune historically did not fire rockets, so perchlorate is not expected to be a big issue. Camp Lejeune has completed sampling of List 1 and had one detection of perchlorate (at 9 ppb) throughout the entire Base, but nothing was detected during re-sampling.

The DoD identified the following materials as potentially being subject to new regulatory standards: TCE, naphthalene, tungsten, PDBE, NDMA, glyphosate, cadmium, chromium VI, and particulate matter.

The DoD is also researching other materials not currently addressed under other DoD programs. This includes newly engineered materials (i.e., nanotechnology, which is currently used in medicines).

IV. Election of RAB Chair

Objective: The purpose of this agenda item was to elect a new community co-chair for the RAB. Mr. Robert Lowder led this discussion.

Overview: No RAB members volunteered themselves or nominated anyone else, so Ms. Laura Bader volunteered to act as co-chair for another term.

V. Selection of New RAB Members

Objective: The purpose of this agenda item was to review the applications for the new RAB members and select additional RAB members. Mr. Robert Lowder led this discussion.

Overview: Mr. Humphries asked how many RAB members were allowed on the Board. According to Mr. Lowder, there is no limit; he would prefer to keep it to approximately 20 members, but it is the RAB's decision. Mr. Humphries indicated he would like the members to outnumber the staff.

The RAB then reviewed the four applications that were received and voted on each member individually. The current RAB agreed to make the following people RAB members:

- Jerome P. Gundrum
- Paul T. Hobson
- Leonard McAdams
- James E. Bunting
- Cynthia Rester

VI. Future Agenda Items

Mr. Lowder will find information about the dry cleaners at Camp Geiger, based upon the general location provided by Ms. Rester.

Mr. Mullins suggested that with the addition of four new people, the next meeting include a tour of active sites.

Mr. Humphries suggested that in the future, a page be provided with the agenda which includes definitions of key terminology (acronyms/abbreviations).

VII. Next RAB Meeting

The Next RAB Meeting will be **Saturday, August 12, 2006 9:00 AM - Noon**. Mr. Bob Lowder will secure a location for the meeting and send the information to the RAB members.