Marine Corps Base Camp Lejeune
Restoration Advisory Board Meeting Minutes
July 28, 2009

ATTENDEES:

Bob Lowder/Camp Lejeune	Michael Curtis/RAB Member
Andrew Smith/Camp Lejeune	Karen Sota/RAB Member
Dave Cleland/NAVFAC Mid-Atlantic	Amy Poe/RAB Member
Bryan Beck/NAVFAC Mid-Atlantic	Chris Holman/RAB Member
Gena Townsend/EPA Region 4	Steven Thompson/RAB Member
Randy McElveen/NCDENR	Chris Bozzini/CH2M HILL
Laura Bader/RAB Co-Chair	Matt Louth/CH2M HILL
Brian Wheat/RAB Member	Kim Henderson/CH2M HILL
Tess Sanders/RAB Member	Bobbie Newman/Court Reporter
Rich Mullins/RAB Member	Marcy Johnson/RHEA
Jerry Ensminger/RAB Member	Tim Price/RHEA
Leonard McAdams/RAB Member	

FROM: Kim Henderson/CH2M HILL

DATE: August 19, 2009

LOCATION

Coastal Carolina Community College, Business Technology Building, Room 102 in Jacksonville, North Carolina

MINUTES

I. Welcome and Introductions

Mr. Lowder began the meeting explaining the format and agenda, indicating that the public meeting for an action at Site 89 will be completed first and the RAB meeting and topics will follow. A Court Reporter will be present for the public meeting session to record the meeting.

Because there are several new members, individual introductions were conducted. Mr. Lowder indicated that copies of several informational documents are available for the members including the 2009 update to the Site Management Plan (SMP) which includes the history, status, and schedule for sites in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program; handouts from the recent Surface Danger Zone (SDZ) Public Meeting; and the RAB Charter.

II. Public Meeting for Engineering Evaluation/Cost Analysis (EE/CA) for Site 89

The EE/CA for Site 89 was presented by CH2M HILL representative, Mr. Bozzini. A North Carolina Court Reporter, Ms. Newman, recorded minutes on the public meeting that are submitted separately. Questions were asked for informational purposes as follows.

Mr. Mullins asked how the capping would affect mobility. Mr. Bozzini indicated that the cap would be engineered to reduce infiltration and leaching and sloped to divert drainage.

Ms. Poe asked how the Hazard Quotient (HQ) and Hazard Index (HI) values are calculated. Mr. Bozzini indicated that they are calculated risk ratios for cancer risks and non-cancer hazards following an established EPA risk assessment guidance process. Mr. Ensminger, asked how potential carcinogens, PCE and TCE are typically calculated. Mr. Bozzini indicated that they are evaluated as carcinogens.

Ms. Poe also asked since it was DDT which is relatively immobile, why it is believed to go anywhere now. Mr. Bozzini indicated that the Partnering Team uses a risk management approach to the investigation and remediation process. Since the area identified is small, it is relatively low cost to conduct a removal rather than extensive investigations to identify whether risk is present. Mr. McElveen added that leaving contamination in-place is not good for future use.

Mr. Ensminger questioned since the site is a former defense reutilization and marketing office (DRMO) where disposal may have been by burying and spreading out contamination, what makes us believe there are not other disposal areas. Mr. Bozzini indicated that broader contamination would be expected if there were site-wide disposal activities, the contaminants were only detected in 2 of 20 samples. Mr. Lowder added that site-wide sampling was previously conducted and the figures only show sampling conducted in a focused area.

III. MCB Camp Lejeune Overview

Objective: The purpose of this agenda item was to provide the RAB with an overview of the Installations & Environment Department, Environmental Management Division goals and purpose at MCB Camp Lejeune. This discussion was led by Mr. Lowder.

Overview: Mr. Lowder reviewed the location (Onslow County), acreage (~153,000 acres), and current population (~146,000) of MCB Camp Lejeune. He reviewed the Environmental Management Division (EMD) organizational structure. Mr. Lowder and Mr. Smith work for the Environmental Quality Branch of EMD which has four sections; Air Section, Water Section, Installation Restoration (IR) Environmental Projects Section, and Environmental Projects and Tanks Section. Mr. Lowder is in charge of the IR Section with assistance from Mr. Smith which primarily addresses IR sites, Solid Waste Management Units (SWMUs), and Ranges.

The Defense Environmental Restoration Program (DERP) purpose is to reduce the risk to human health and the environment from waste disposal operations and hazardous substance spills. The goal is to provide for cost-effective and timely site assessment, planning and remediation of identified releases. Guidance that is used to address these sites is CERCLA, the National Oil and Hazardous Substances Contingency Plan (NCP), and

Applicable and Relevant and Appropriate Requirements (ARARs). Major ARARs include the Resource, Conservation, and Recovery Act (RCRA), Clean Water Act (CWA), Clean Air Act (CAA), and Safe Drinking Water Act (SDWA).

Mr. Lowder reviewed the CERCLA investigation process that includes several steps. The first step is the Preliminary Assessment (PA)/Site Investigation (SI) phase. Based on the results, which may include archives searches, interviews with former employees, and environmental sampling, additional study or no further action is recommended. The next steps are the Remedial Investigation (RI)/Feasibility Study (FS) to assess the nature and extent of contamination, risk evaluations, and remedial alternatives; the Proposed Remedial Action (PRAP)/Record of Decision (ROD) to select the remedy; and the Remedial Design (RD) and Remedial Action (RA) to design and implement the remedy. After the remedy is in-place, 5-Year Reviews are conducted to assess the effectiveness of the remedies and ensure continued protection of human health and the environment. The sites are then considered to be in the long-term operation and maintenance phase.

The history of the Basewide Environmental Restoration Program included the Initial Assessment Study (IAS) that was completed in 1983. The Base was placed on the National Priorities List (NPL) in 1989 and the Federal Facilities Assessment (FFA) was signed in 1991 by the Navy, EPA, and State to identify the Navy as the lead agent and to outline how the agencies will work together to address sites. The Partnering Team, consisting of representatives of the Base, Navy, EPA, State, and contractors including the CLEAN contractor (CH2M HILL), RAC contractor (SHAW), and other ancillary contractors (RHEA).

Mr. Lowder reviewed the four programs, including the IR Program, Military Munitions Response Program (MMRP), SWMU, and Underground Storage Tank (UST) and Aboveground Storage Tank (AST) Program:

- The IR Program is intended to address sites before October 17, 1986 under CERCLA. There are 44 IRP sites, 15 are active and 29 are NFA. Funding for the IR Program sites is provided by Environmental Restoration, Navy (ER,N) program. Funding to-date totals approximately $158 million and the cost-to-complete is estimated at $131 million. Funding in 2008 totaled $5.4 million and $5.2 million is estimated in 2009.

- The MMRP is to address potential hazards from past use of military munitions under CERCLA following NOSSA OPNAVINST 8020.15/MCO 8020.13. There are 242 ranges, 77 are active, 135 are inactive, 30 are in the closure process, and 1 was transferred. Funding is currently providing by the Marine Corps. Funding under the MMRP in 2007/2008 totaled $2 million and activity-funding in 2008 is approximately $2.4 million.

- The SWMU program is intended to address sites after October 17, 1986, more recent releases, under RCRA. The RCRA cleanup process is similar to the CERCLA process but working under an active permit with the State. RCRA There are 166 SWMUs, 29 are active, and 137 are NFA.

- The UST and AST Program is intended to address petroleum, oil, lubricant (POL) contamination due to leaks under RCRA. There are 193 UST/AST sites, 22 are in the site assessment phase, 19 have active treatment systems, and 152 are NFA.

Mr. Lowder reviewed site maps of the Camp Geiger, Camp Johnson, MCAS New River, Mainside, Stone Bay, and Courthouse Bay, and off-Base (EPA-led) ABC Cleaners areas showing the site and land use control (LUC) boundaries.

Other activity-funded environmental restoration projects totaled approximately $15 million in 2008/2009. This included MMRP Support for six sites, CERCLA Assessments for five sites, RCRA investigations at nine SWMUs, 202K military construction (MILCON) support for the planned growth in force, a Basewide vapor intrusion investigation, off-Base SDZ assessment, a Base boundary assessment, and Hadnot Point Industrial Area assessment.

Mr. Ensminger asked who was conducting the vapor intrusion sampling. Mr. Lowder indicated that CH2M HILL conducted the sampling in six investigation areas and no current significant pathways of concern for vapor intrusion were identified. Some additional follow-up actions were recommended and the report is currently under regulatory review. A vapor mitigation system is in-place at Building 1101 where vapor intrusion impacts were previously identified.

The off-Base SDZ project was discussed. During a recent review of operational range locations, the Base discovered that portions of the SDZs for one existing range (G-7) and several historical ranges were located outside the surveyed base boundary. The potentially affected off-Base property includes 301 acres of private property with three owners, 225 acres of state owned property (marsh & waterway), 1,090 acres of un-owned property (marsh), and 182 acres of State Park property (Hammocks Beach). Verification of off-Base SDZs will be verified. The Base boundary was re-surveyed in the affected area and an archives records search was conducted. Planned activities are to conduct a PA/SI to include an aerial magnetometer survey by helicopter with magnetometer array, a focused Digital Geographical Mapping survey in high ground surface areas, and environmental sampling of soil, groundwater, surface water, and sediment.

Mr. Ensminger questioned for fuel spills what determines what is addressed under CERCLA or RCRA. Mr. Lowder answered that if POL is co-mingled with chlorinated solvents then it is addressed under CERCLA. If POL remains following the CERCLA action, the site is transferred to the appropriate UST program. Mr. Ensminger asked for Site 22 that was originally under CERCLA, why it was transferred to RCRA in 1990. Mr. Lowder indicated that the Base and regulatory agencies thought the site to be more appropriately addressed under RCRA because CERCLA is not mandated to cleanup POL. Mr. Ensminger asked what if there was an existing pathway to human exposures. Mr. Lowder indicted that the RCRA and UST program follow a similar process in assessing risk and comparing to state cleanup values.

IV. RAB Business

Mr. Lowder requested topics for the next RAB meeting. Mr. Ensminger indicated interest in Site 69 since MILCON is planned near the Site. Mr. Powers indicated interest in the ONWASA bill to pump wastewater into aquifers. Ms. Parker is involved with the bill and offered to discuss with Mr. Powers after the meeting. Mr. Mullins requested a site tour. Mr. Lowder proposed a site tour at the October meeting and to discuss Site 69 at the January meeting when data would be available. The site tour was scheduled for **Saturday, October 24, 2009** was scheduled.

Mr. Lowder presented a letter of appreciation and recognition to Mr. Mullins for 13 years of service on the MCB Camp Lejeune RAB. Mr. Lowder noted that at a future meeting, the RAB will vote on the community co-chair position that Ms Bader currently holds.