

MINUTES
NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH
RESTORATION ADVISORY BOARD (RAB)
AND COMMUNITY MEETING
September 12, 2006

Participants:

Dadakis, Jason / Orange County Water District
Da Veiga, Paul / City of Seal Beach, Planning
Jordan, Jack
Hamparsumian, Hamlet / Tetra Tech EC, Inc.
Kerfoot, Henry
Le, Si / Naval Facilities Engineering Command, Southwest (NFEC SW)
Losi, Mark / Tetra Tech EC, Inc.
Peoples, J.P. / RAB Community Co-chair
Salazar, Cindy / CH2M HILL
Smith, Gregg / NAVWPNSTA Seal Beach Public Affairs Officer (PAO)
Tamashiro, Pei-Fen / NAVWPNSTA Seal Beach and RAB Navy Co-chair
Vesely, Gene
Wong, Bryant / CH2M HILL

WELCOME

At 6:08 p.m., P. Tamashiro, Navy Co-chair began the meeting by welcoming the participants. She introduced S. Le, NFEC SW, Lead Remedial Project Manager (RPM) and G. Smith, NAVWPNSTA Seal Beach Public Affairs Officer (PAO). P. Tamashiro announced that the RAB meeting would proceed with a status update on the ongoing Installation Restoration (IR) Program.

PROJECT HIGHLIGHTS

The RAB meeting continued with a status update on the ongoing IR Program presented by S. Le.

The following sites were discussed:

- Site 42 – Auto Shop Sump/Waste Oil Tank; Sites 44/45 – Former Waste Otto Fuel Drum Storage; and Solid Waste Management Unit (SWMU) 57 – Paint Locker Area; Cleanup
- Site 14 - Abandoned Leaking Gasoline Underground Storage Tank (UST), Additional Groundwater Delineation
- Site 70 Revised Feasibility Study (RFS), Proposed Plan (PP), and Record of Decision (ROD)
- Site 40 - Concrete/Pit Gravel Area, Remedial Action
- Site 74 – Old Skeet Range, Net Environmental Benefit Analysis (NEBA) and Engineering Evaluation and Cost Analysis (EE/CA)
- Site 4 – Perimeter Road; Site 5 – Clean Fill Disposal Area; Site 6 – Explosives Burning Ground; and Site 7 – Station Landfill, Long-term Groundwater Monitoring Program

Hard copies of the slide presentation were available as a handout at the meeting.

Questions and answers posed after the Project Highlights presentation are summarized below:

General

Question: What is a ROD (record of decision)?

Answer: ROD stands for the Record of Decision. After the Feasibility Study, a ROD document is prepared and is used to formally document the cleanup remedy.

Question: Is a remedial action plan (RAP) necessary also?

Answer: A RAP is essentially the same as a ROD. It is a matter of terminology; the California Department of Toxic Substance Control (DTSC) uses the RAP terminology. A work plan is prepared to detail the specific activities.

Question: What are the contractor responsibilities?

Answer: The contractor's responsibilities are to provide information on air, noise, traffic, and other possible impacts to DTSC so that the State can comply with the requirements of the California Environmental Quality Act (CEQA). This information is used to analyze possible negative impacts to the environment from the cleanup action.

Question: Is the delineation of the groundwater plume at Site 14 complete?

Answer: The latest groundwater monitoring data gathering should eliminate the remaining questions on the groundwater contamination plume. There is still another future round of sampling planned. We will be monitoring this plume and expect a downtrend in the data.

Question: Regarding the prior remediation effort at Site 40 that involved injecting lactate, have any soil testing been done?

Answer: Two continuous coring samples were analyzed prior to the remedial action being implemented. We did not expect a lot of variation in geology because the site is very small. Additional geological investigations were done recently at several locations to further understand distribution of lactate. Tonight's presentation will provide more detailed information on this subject.

P. Tamashiro asked the meeting attendees to introduce themselves.

P. Tamashiro continued the RAB meeting by indicating that a technical presentation on IR Program Site 40 - Concrete Pit and Gravel Area was presented by M. Losi and H. Hamparsumian, Tetra Tech EC, Inc.

PRESENTATION - ENHANCED IN SITU BIOREMEDIATION OF CHLORINATED VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER, REMEDIATION SYSTEM OPTIMIZATION PLAN AT INSTALLATION RESTORATION PROGRAM SITE 40

M. Losi gave the presentation. Copies of the slide presentation were made available as a handout at the meeting. Questions and answers posed during and after the presentation are summarized below:

Question: What is a geoprobe? (Referencing slide 33). Does the geoprobe measure penetration? Does the geoprobe hammer slam down through the soil?

Answer: The geoprobe is a common method of collecting samples and soil data. It consists of a probe that is pushed down through the soil and measures the resistance encountered which can be correlated to soil types.

Question: How would you work around the railroad operations and the railroad tracks?

Answer: The site already has many wells installed within the railroad tracks in front of the locomotive shop. There were no problems during the installation of the wells in this area and none are foreseen when HRC would be injected. The railroad tracks are not used very often and the locomotive traffic around the locomotive shop is not very active. Prior to any field activity in the area, we coordinate with the Base point of contact and inform the locomotive maintenance people regarding the nature of the fieldwork so that we coordinate our activities with their schedule. The HRC injection does not take long to perform. We can perform about 12 injections per day, each taking about 30 to 45 minutes to complete. Therefore, there should not be any inference with the railroad operations. In addition, only a few of the HRC injection points fall within the railroad tracks in front of the locomotive shop.

Question: Will the injections be at a depth of 40 feet?

Answer: Yes.

Question: Will there be enough hydrogen-release compound (HRC) to assist bioaugmentation?

Answer: Yes. It should take approximately five months to achieve coverage and another six months of monitoring to see if it works. If the data indicate that bioaugmentation is necessary, it will be conducted. The HRC should last two years under the low flow conditions that we observed at Site 40. Quarterly monitoring sampling will be implemented. The monitoring will enable us to monitor the migration and effectiveness of the HRC.

Question: Is there still a fear of the "Frankenstein" problem when you introduce bacteria for remediating the plume?

Answer: No. The regulating agencies are usually opposed to using “genetically engineered microorganisms.” The bacteria used to bioaugment this site are naturally occurring and are not genetically engineered. These bacteria are harvested using a process that simulates natural selection optimized under man-made conditions to obtain the most efficient dechlorinating strains. They are non-pathogenic and cannot survive without chlorinated compounds present.

Question: How did you decide to biostimulate (using lactate) first and bioaugment later and not the other way around?

Answer: The lactate must be added first, and must be metabolized by a variety of naturally occurring bacteria in order to create optimal conditions for the dechlorinating bacteria to survive and grow. Over the course of the lactate injections, we did not see the lactate get distributed in the central area, but we did see evidence suggesting that there may be native dechlorinating bacteria present that were not detected during the pilot test. Thus we want to deliver the lactate first to the central portion of the site to try to biostimulate the native bacteria, monitor to see if this is effective, and bioaugment only if necessary.

COMMUNITY FORUM

P. Tamashiro continued the announcements by indicating that the documents which are distributed during the meetings and documents for review are available on the NAVWPNSTA Seal Beach website.

No additional questions were raised.

ADJOURNMENT

P. Tamashiro adjourned the meeting at approximately 7:49 p.m.

Note: This is a meeting summary, not an actual transcript.