

RAB Minutes

**NAS North Island
Restoration Advisory Board
August 23, 2001, Meeting Minutes
INTRODUCTION**

The seventy-first Restoration Advisory Board (RAB) meeting for Naval Air Station (NAS) North Island/Naval Amphibious Base (NAB) Coronado was held on Thursday, August 23, 2001, at the Coronado Public Library from 6:40 p.m. to 8:15 p.m. Mr. Geilenfeldt called the meeting to order at 6:40 p.m.

RAB ATTENDANCE

Bill Collins, Daniel Cordero, Bob Geilenfeldt, John Locke, Art Van Rooy

PUBLIC/NAVY ATTENDANCE

Dis Abelman, Mark Bonsavage, Anita Boyd, Robert Campbell, Marilyn Field, Jim French, Judy Geilenfeldt, Leticia Hernandez, Laura Hunter, Nancy Lee, Dottie Marron, Nicole Peacock, Vicki Raun, Dick Scharff, John Traylor, Richard Wong

APPROVAL OF MAY 17, 2001, MEETING MINUTES

The RAB members approved the May 17, 2001, meeting minutes without change.

MEETING TOPICS

The August 23, 2001, meeting topics were the Site 9 Removal Action Update, Site 5 Removal Action Update, and Site 11 Feasibility Study.

PRESENTATIONS

Site 9 Removal Action Update - Bill Collins, SWDIV RPM

The process of removing contaminants from Site 9, a former chemical waste disposal area, has been ongoing for many years; much more work needs to be done. A full-scale clean-up system, water treatment bench test, and review of discharge options are planned for the unoccupied and unused site.

A large extraction system successfully removed 80,000 pounds of mixed volatile organic compounds (VOCs) over 26 months. A pilot-scale steam injection system was installed and run for 9 months, removing 28,000 pounds of VOCs in the form of free product (mostly fuel) and fumes (largely chlorinated hydrocarbons). A full-scale system was installed last June and is composed of 38 steam injection wells, 58 free-product wells, and some vapor extractions wells. Over 57,000 pounds of free-product contaminants were removed, for a total of 175,000 pounds.

The plan is to begin with product skimming, for budgetary reasons. When funding is appropriated, the large number of steam injection wells will be used to heat up areas of the site, optimizing the temperature in the entire area for extraction and vapor collection. A tank will be used to store the recovered product and separate the water from the fuel and solvents.

The initial treatment system was modified somewhat to accommodate the addition of concrete pads and different, often more efficient, equipment. Two vapor phase carbon adsorbers; a low-pressure, low-NO_x boiler that meets current code; and a steam superheater will be added. An Air-Stream heater, for moisture control, will be added along with a new condenser for the dense non-aqueous phase liquids (DNAPL).

This project marks the first time a military base has used a large operation of this kind. As a result, the Environmental Protection Agency (EPA) is including the site in their technology-training program. The EPA received a presentation for training purposes, and they may film the project.

The top 4 inches of groundwater will be extracted as it contains considerable amounts of contaminants. The water must be cleaned enough to allow discharge. A 6-stage treatment is being investigated that is composed of pre-treatment, anaerobic treatment, aerobic treatment, advanced oxidation, iron cyanide treatment, and activated carbon treatment. Due to the large amount of treated water that will need to be discharged and the cost of doing so, alternative methods are being considered, such as an infiltration gallery and high evapotranspiration plants. Infiltration would use slotted pipes buried below the contaminated soil level to disperse the water back to the site. Evapotranspiration would use living plants with high water uptake capabilities to absorb the water and chemicals. The plants would be harvested and disposed of periodically as hazardous waste. Pilot tests for both methods begin in the fall to examine potential concerns and options.

**Site 5 Removal Action Update - Mark Bonsavage, SWDIV RPM, and Rich Wong, IT Corporation
Project Manager**

The discussion centered on activities planned for Unit 2 at Site 5. A fact sheet was mailed to regulators and others concerned with actions at the site to explain what is planned. The fact sheet also invited people to attend this meeting.

On August 13, 2001, the Department of Toxic Substances Control (DTSC) posted a negative declaration, determining that the plan complies with the California Environmental Quality Act (CEQA). This declaration opened the project to a 30-day public review that ends September 12, 2001. During this time, the plan is available from the public library, and the public can comment on the plan to the DTSC or the Navy. The comments will then be incorporated into the plan, the plan will be finalized, and the fieldwork will begin.

The site, which is located close to the city of Coronado, is undergoing a time-critical removal action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contaminants disposed of at this site include chlorinated solvents and fuel hydrocarbons. At Unit 2, the plan is to contain a 3.4-acre groundwater plume with VOCs that is located in the vicinity of the former hazardous waste disposal pits. The containment barrier at this site is approximately 10 feet deep. Depth to groundwater is about 5 feet.

An earlier study determined that the plume is fairly stable through natural attenuation and indigenous biological entities and bacteria. However, the possibility that the plume could reach the slough given enough time - decades or centuries - also was identified. This study prompted the Navy to decide to accelerate the degradation process by removing the source, resulting in this removal action.

Based on the results of a pilot test, an in situ chemical oxidation process, using Fenton's Reagent, will be implemented. The process involves injecting hydrogen peroxide and an iron catalyst into the subsurface. The reaction produces a hydroxyl radical compound, which is a very strong oxidant that destroys groundwater contaminants. Acid is first injected into the subsurface to lower the pH. The process can be exothermic, meaning it can give off heat. This possibility is considered when preparing health and safety precautions. In the pilot study, groundwater contaminants were reduced up to 90 percent in some wells; at least a 50 percent mass removal also was achieved in the wells. In addition, an approximate 70-percent

reduction of the contamination in the saturated soil (i.e., the soil beneath the groundwater table, where much of the contamination resides) was achieved. Vapor monitoring probes were installed around the injection points to collect subsurface vapor samples. The pilot study showed no significant production of off-gasses.

A pre-treatment study was conducted to refine the conceptual model of how the contamination is distributed and the geology at the site, which determines how the contamination should be treated. In the study, groundwater samples were collected from the wells constructed. Also, the Navy site characterization and penetration system (SCAPS) and a membrane interface probe that allowed the collection of real-time data of soil and groundwater concentrations were used, minimizing the number of wells required for preliminary data collection. Soil samples were collected, and the potential for water contamination resulting from water infiltration through the soil was examined. From this information, it was determined that the trichloroethene (TCE) in the soil above groundwater could affect site water quality. The highest concentrations occurred near the eastern pit. Based on the Preliminary Remediation Goals (PRGs) set by the EPA, some vadose zone and unsaturated soils could be a health risk if the use of the site changes in the future. An air dispersion model also was created that indicated no significant adverse effects to the citizens of Coronado as the result of the planned activity. The closest point to the city from the site is approximately 1,800 feet.

The plan seeks to achieve a 90-percent reduction of contamination in the source area. To that end, a limited excavation is planned. The material will be excavated in limited quantities before being sealed in bins, transported off-site, treated, and then disposed of at a licensed facility. (Discussions between the Navy and the city have addressed concerns regarding increased truck traffic resulting from the removal of the bins.) Simultaneously, the site will be restored in each excavated area by adding clean fill to the excavation (trucked in prior to the excavation) and compacting the fill. When removal is complete, Sherman Road, which must be torn up in order to conduct the excavation, will be repaved. To minimize impact to the city and NAS North Island (NASNI) workers, vapor-tight bins will be placed in advance and the work conducted over the weekend. Excavation will be conducted at night and end by 8 am, when temperatures are lower and fewer occupants will be in the area. Surfactants will be sprayed to minimize emissions. Vapor monitoring will be conducted at various locations on and around the base and along the perimeter of the base where it meets the city of Coronado. In addition to the public comments being taken regarding the proposed plan, a communication plan will be implemented to provide a Navy point of contact to answer resident concerns. The soil removal is planned for the third week of September pending the required approvals, and it is expected to take place over approximately a one-month period (excavation through disposal).

The planned truck route for delivering the empty bins is via the Coronado Bridge, down Third Street, along Alameda, entering the base through Truck Gate 2. Taking into account the health and safety of the community and on-site workers as the primary priority at all times, the filled bins will leave the site after the soil has been characterized and it has been determined to which facility the soil must go. Trucks will exit the main truck gate or the main entrance to North Island, down Fourth Street, over the Coronado Bridge, to I-5 or I-15 to the appropriate disposal facility.

After the excavation is complete, groundwater will be treated. The first treatment area consists of approximately 20,000 square feet that contains 15 injection wells. This area has the highest concentrations. The second area is approximately 40,000 square feet and includes 30 wells, which will be used to monitor the *in situ* chemical oxidation treatment and determine if contaminants are migrating away from the source.

Site 11 Feasibility Study - Jim French, *Bechtel*

This presentation was postponed until the November meeting. Mr. Collins stated that a Feasibility Study for Site 11, which is the Industrial Waste Treatment area, is nearly complete. The study examined a variety of waste-handling options for the ground and groundwater, which have been contaminated from past, not

current, operations. The study was done in cooperation with the state and the Water Board. The Feasibility Study will be released to the public and regulators for comment in the fall.

PUBLIC QUESTIONS AND COMMENTS

Ms. Hunter requested an estimate as to how many gallons of water will be discharged from Site 9 and a description of the water quality standards that will be applied. With regard to Site 5, Chief asked about the potential for off-gassing, how clean fill would be delivered to the site, the nature of the materials excavated (e.g., sludge or dry soils), and whether or not there is a dust-control permit issued. Chief Traylor stated that the use of Fourth Street has not been approved by the city. Several people indicated concern regarding the amount of truck traffic generated and questioned why barges aren't planned for the soil removal. Dick Scharff of the Third and Fourth Street Committee expressed concern over the truck traffic on the basis of noise, air quality, the conditions of the roads proposed, and the possibility of a spill. Ms. Hunter questioned whether hazardous materials are allowed over bridges. (It was pointed out that flammable and explosive materials are banned.) She also stated her belief that all communities through which the contaminated soil travels should be notified. Ms. Hunter questioned whether a nighttime excavation incurred increased winds and pointed out that nearby residents are more likely to be home. (It was noted that there is more traffic and outdoor use during the day and that increased winds provide more rapid dispersion.) She asked if tenting of the site had been considered as a way to reduce emissions (it was evaluated) and if treating the soil on-site is a way to reduce risks when the soil is shipped elsewhere and possibly incinerated. Ms. Hunter expressed concern that workers be fully trained and in protective gear. Chief Traylor asked if the soil could be treated and reused to fill the hole, and Mr. Collins said that waste disposal regulations prohibit it. Mr. Geilenfeldt noted that well-marked Department of Transportation (DoT)-approved containers are used for such materials and response plans developed for accidents. Ms. Peacock asked how many trucks per day are expected (5 per day are anticipated; more than 5 requires notification to the city of Coronado in advance). Ms. Field questioned what makes this a time-critical removal action, and an explanation was provided. Ms. Marron asked if the monitoring plan would be available to the public, and was assured that all related documents will be available in the library for review.

UPCOMING AGENDA ITEMS

Site 11 Feasibility Study

Site 9 Update

Summary of the funding history for the cleanup effort and the projected funding for the out years

RAB UPCOMING MEETINGS, YEAR 2001

November 15, 2001.

MEETING ADJOURNED

Mr. Geilenfeldt concluded the meeting, and the meeting adjourned at 8:15 p.m.