

**Final  
MEETING MINUTES  
RESTORATION ADVISORY BOARD  
NAVAL STATION TREASURE ISLAND  
18 October 2005  
Meeting Number 120**

**Community RAB Members in attendance:**

John Gee	Nathan Brennan	Dale Smith
Alice Pilram	Douglas Ryan	Walter Stortroen
Anthony Fo (new member)		

**Regulatory Agency, City and Navy RAB Members in attendance:**

Alan Friedman (Water Board)	James Sullivan (Navy)
David Rist (DTSC)	

**Other Agency, Navy Staff and Consultant Representatives in attendance:**

Marcie Rash	Pete Bourgeois	Kevin Hoch
Stan Clarke		

**RAB Support from ITSI:**

Joni Jorgensen-Risk	Steve Edde
Valerie Jensen, Court Reporter	

**Welcome Remarks and Introductions**

James Sullivan (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC]) opened the 18 October 2005 meeting at 7:01 p.m. at the Casa de la Vista (Building 271).

Mr. Sullivan welcomed those in attendance. He also pointed out there were extra copies of the meeting agenda available at the back of the room. There were no changes or comments on the agenda so Mr. Sullivan moved directly to the next agenda item.

**Public Comment and Announcements**

Mr. Sullivan stated that there were two public comment periods included on the agenda to afford members of the public the opportunity to comment on the Navy's environmental program at Treasure Island (TI). There were no comments or announcements so Mr. Sullivan moved directly to the next agenda item.

## **Field Activities Update**

Mr. Sullivan introduced Pete Bourgeois, Shaw Environment and Infrastructure (Shaw E&I), to provide the field activities update for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Sites 21 and 24.

Mr. Bourgeois noted that Site 24 was discussed at the previous RAB meeting and that this presentation would provide a further update. The extraction/injection wells have been shut down at Site 24, but bioremediation progress is being monitored. Mr. Bourgeois then introduced Stan Clarke, Shaw E&I, to provide the update presentation.

Mr. Clarke began his presentation with a discussion of Site 24. He stated that based on the expanded treatability study they have identified an effective substrate. He continued to explain that at Site 24, groundwater is extracted, mixed with the substrate, and reinjected into the aquifer. Based on their investigation, it appeared that naturally occurring microbes dechlorinate the chlorinated ethenes. However, the dechlorination process was slow and often incomplete. Therefore, cultured microbes (SDC-9), were added to the process. The cultured microbes speed and complete the dechlorination process.

Mr. Clarke then described the history of Site 21. Site 21 contained five tanks that were used to recover oil from ships docked in Clipper Cove. Site 21 also included a cleaning dip tank near the Hangar Building 3. An investigation of the area identified tetrachloroethene, trichloroethene, dichloroethene, and vinyl chloride. The contamination was mostly limited to the upper 10 to 15 feet of groundwater.

The Site 21 Treatability Study focused on the area with total reported chlorinated ethenes above 100 micrograms per liter ( $\mu\text{g}/\text{l}$ ) and began with the collection of baseline groundwater samples. The Navy then installed 45 injection points to a depth of 20 to 25 feet below ground surface (bgs), and one downgradient 1-inch diameter monitoring well. Six of the points were then injected with a compound of zero valent iron and carbon (identified as EHC). Mr. Clarke explained that these EHC biobarrier wells are intended to protect the Bay in the event that contaminants migrate beyond the treatment area.

After the biobarrier wells were completed, the next step of the treatability study began at Site 24, where a substrate was mixed with extracted groundwater. Conversely, at Site 21, substrate was mixed with water from nearby fire hydrants. Injection occurred in five points at a given time. At each location, about 2,000 gallons of substrate/water mixture was injected to "pre-condition" the groundwater for the microbes. Then about two pounds of SDC-9 was injected at each location. This was followed by injecting an additional 5,000 gallons of the water/substrate

mixture. Mr. Clarke then explained that bubbler tubes were installed in seven of the wells. Hydrogen will be injected directly in each of these locations.

The first round of post-injection groundwater samples have been collected, but the laboratory results are not yet available. According to Mr. Clark, the field sampling results indicate that:

- Alkalinity, which indicates the presence of substrate in groundwater, has increased;
- Oxygen reduction potential (ORP) has reduced to a range necessary for the microbes to dechlorinate the contaminants;
- Dissolved oxygen (DO) has reduced;
- Sulfate has reduced; sulfate must be nearly eliminated for the microbes to be effective; and
- Ferric iron is changing to ferrous iron, which is necessary for the microbes to be effective.

Mr. Clarke then asked if there were any questions. John Gee asked if a microbe spill would be toxic to sea birds. Mr. Clarke replied that the microbes would not be toxic. Mr. Gee then asked if the microbes feed on anything other than ethane. Mr. Clarke explained that the microbes feed off the substrate, and they respire the chlorinated ethenes.

Walter Stortroen asked how many rounds of injection were planned. Mr. Clarke responded that they are hoping that one round of injection will be sufficient. Mr. Stortroen then expressed concern about the remaining sulfate. Mr. Clarke explained that the process is ongoing, and groundwater monitoring will track the progress of the remediation.

Dale Smith asked if it was more cost effective to mix the substrate with water from fire hydrants than it was to mix with extracted groundwater. Mr. Clarke confirmed that it was both faster and more cost effective to use water from the fire hydrants, which is what was done at Site 21. Ms. Smith then questioned the use of a non-calibrated scale to weigh the 2 pounds of microbes per injection point. Mr. Bourgeois clarified that there was no specific amount that was required at each location. Mr. Clarke explained that two pounds was more than enough to be effective, and that the scale was used to dose the wells with approximately the same amount of microbes.

Mr. Sullivan added that both Site 21 and Site 24 are currently in the monitoring phase.

Ms. Smith asked if there had been any problems coordinating with the sailing school. Mr. Clarke stated that they had worked their schedule around the needs of the sailing school and there were no problems.

### **Navy FY06 Environmental Program**

Mr. Sullivan introduced Marcie Rash, Tetra Tech (TtEMI), to give a presentation on the 2006 environmental program. Ms. Rash began by noting that the Annual Environmental Closeout Strategy and Schedule for TI was finalized on 31 August 2005. Ms. Rash indicated that CD copies of the document, and figures from the document, were available on the back table. She then described the progress to date and the planned schedule. In summary:

#### CERCLA Program

In general, in 2005 the Navy conducted scoping for the Remedial Investigation (RI) reports, including working with the Base Closure Team (BCT) to prepare an appropriate approach to the Human Health Risk Assessment (HHRA) portion of the RI reports.

*Site 6* Site 6 was included in the petroleum program earlier, but is now back in the CERCLA Program. In 2005, the Navy worked with the BCT to establish an HHRA approach for three sub-areas in the site. In 2006, the Site 6 RI report should be finalized and work will begin on the Feasibility Study (FS).

*Sites 8, 28, & 29* These are the sites located on Yerba Buena Island (YBI). There will be one RI report submitted for all three sites. The RI report is currently being prepared. In 2006, the RI report will be finalized and work will begin on the FS.

*Sites 9 & 10* An RI was completed for these sites several years ago. However, dioxin was identified along the riprap in the area, so a dioxin investigation is planned in this area, and will be conducted in 2006. Upon completion of the dioxin investigation, a proposed plan will be prepared, a public comment period will be conducted, and a public meeting will be held. A Record of Decision (ROD) and Remedial Action Plan (RAP) will also be prepared in 2006.

*Site 11* In 2006, an RI report will be prepared for Site 11.

*Site 12* The Site 12 RI work plan, which outlines the HHRA approach for this site, is about to be finalized. The Groundwater Monitoring Technical Memorandum, which identified how to optimize Site 12 groundwater sampling, has been finalized. A soil gas/indoor air investigation is also planned for the Halyburton Court area. Site 12 data are also being reviewed and work has begun on preparing the RI report. Also in 2005, the Navy installed permanent fencing around the solid waste disposal areas at the site. In 2006 the Navy will finalize a Tech Memo that describes the 2005

Halyburton Court Sampling. Also in 2006 the Navy plans on finalizing the RI report and beginning the FS report. In addition, an Engineering Evaluation/ Cost Analysis (EE/CA) and action memo for the solid waste disposal areas will be prepared. Ms. Rash stated that the FS, Proposed Plan (PP), ROD, and RAP have pretty much been packaged together and the Navy hopes to execute those in 2006. Finally, annual groundwater monitoring and a pilot study to address the arsenic in groundwater will be conducted in 2006.

*Site 13* On 7 April 2005, the Navy finalized and signed the no further action ROD for this site. Therefore, investigation and remediation is complete at this site.

*Site 21* A treatability study is underway. A Draft RI report has been submitted and agency comments have been received. The next steps include preparing a Response to Comments and finalizing the RI report. In 2006, the Treatability Study report, the RI, and Focused Feasibility Study (FFS) will be completed.

*Site 24* A treatability study report was completed for the source area investigation at Building 99. The treatability study was then expanded into the plume area. The site has undergone RI scoping, including proposing a new site boundary. Two monitoring wells have been installed in the C zone along the southern boundary of the site. In 2006, the RI and FFS will be completed.

*Site 27* Work is continuing on the revised Draft FS for the Clipper Cove Skeet Range, including preparing a Response to Comments. A Sedimentation Point Paper and Hydrographic Survey have also been completed. In 2006, the Navy is planning on finalizing the FS, completing a PP, and conducting a 30-day public review period and public meeting.

*Site 30* The RI report is currently being finalized. In 2006, work will begin on the FS and proposed plan.

*Site 31* The draft RI report comments are due in October. In 2006, the FS will be finalized.

*Site 32* The scoping has been completed for the RI report. There is a planned additional dioxin investigation that will be conducted concurrent with the Site 10 investigation. In 2006, the Navy is planning on finalizing the RI report and beginning the FS.

*Site 33* Site 33 is the water line replacement area. Groundwater sampling has been completed at the site. The Navy is currently negotiating with the regulatory agencies to eliminate the site boundary overlap with Site 24. Once the boundary issue has been resolved, work will begin on the RI report. In 2006, the Navy is planning on finalizing the RI report and beginning the FS.

### Petroleum Program

Groundwater sampling was conducted in October. Closure reports have been prepared for sites Underground Storage Tank (UST) 18C, D1B, F2A, F2B, and 14/22. Closure reports are being prepared for Sites 6 and 25. The soil vapor extraction (SVE) system at Site 25 is being disassembled. The Navy has received No Further Action letters (from the Water Board) for sites 14/22, F2A, and F2B, and a No Further Action letter for the soil at Site D1B.

A final round of groundwater sampling (for the petroleum sites) is planned for December 2005. In 2006, the Navy plans on completing the closure reports for Sites 6 and 25, finalizing the UST summary report, and destroying the petroleum site monitoring wells (unless the wells are needed for the CERCLA Program). In addition, the Navy is hoping to get closure on Sites 6 and 25, and closure on the groundwater for Site D1B in 2006.

Only three sites (UST 238, the Coast Guard site, and pipeline YF3) will remain in the petroleum program after 2006. Those sites have been put on hold because of the San Francisco-Oakland Bay Bridge activities. These sites will be addressed upon completion of the bridge activities.

### Other Programs

*PCB Program* Additional samples will be collected related to the electrical transformers within the Finding of Suitability for Early Transfer (FOSET) property footprint. In 2006, the additional investigation will be finalized and polychlorinated biphenyls (PCBs) will be remediated as necessary in the Finding of Suitability to Transfer (FOST) and FOSET areas.

*Lead-Based Paint* Soil abatement has been completed for YBI Quarters 1 through 7 and Quarter 10. The exterior of Quarter 10 was abated for lead-based paint (LBP) last year. Quarters 1 through 7 were abated between 3 and 5 years ago, so for Quarters 1 through 7, chipping and peeling paint will be removed and those areas will be repainted. There will be a re-evaluation of the YBI and TI residential units in 2006.

*Radiological Assessments* Project Plans were completed for Building 233. The plans include asbestos removal, abatement, and a radioactive survey. A draft Historical Radiological Assessment (HRA) has been completed, and comments have been received from the regulatory agencies. In 2006, the investigation at Building 233 will be completed and a report will be prepared. In addition, radiological surveys will be conducted at the sites identified in the HRA.

*Asbestos Program* In 2005, there was a fire in Building 293. Mr. Sullivan pointed out that less than 25 percent of the building was damaged by the fire. In 2006, Building

293 will undergo asbestos abatement in the damaged area, that damaged area will be demolished, and the remainder of the building will be sealed back up. Mr. Sullivan also noted that it was more cost effective to partially demolish the building than to totally demolish the building.

*Transfer Program* The Supplemental Environmental Baseline Survey (SEBS) and the FOST for both TI and YBI are being finalized. The public will be notified when the FOSTs are signed. The Navy will begin preparing the FOSET in 2006.

*Community Relations* In the past year, a TI General Fact Sheet was prepared and a spring/summer TI Newsletter. A winter edition of the TI newsletter is being prepared, as is a Site 12 history fact sheet.

Ms. Rash then pointed out that the timeline was finalized in August. After the timeline was completed, the Navy received their funding list for 2006, and for that reason the timeline may not perfectly reflect the new priorities. Ms. Smith asked if that meant that some of the project timelines might get pushed out or canceled. Ms. Rash replied that to the contrary, some of the projects might actually get pushed forward. Mr. Sullivan noted that the Sites 21 and 24 timelines were based on the assumption that further groundwater remediation may be necessary. But, if the treatability studies at the sites are successful, it may be possible to shorten the timeframe for both of those tasks.

Mr. Sullivan also pointed out that after the Site 11 ROD is completed, remedial action will likely be necessary, possibly a landfill cap. However, Site 11 is currently being used for the Bay Bridge construction, so the schedule for that work will depend on coordinating with Caltrans.

### **Halyburton Court Update**

Mr. Sullivan introduced Kevin Hoch, TtEMI, to give a presentation on the status of the Halyburton Court area of Site 12. Mr. Hoch explained that the initial investigation of the area was completed in 1999. The investigation identified PCBs and polycyclic aromatic hydrocarbons (PAHs) as chemicals of concern. The source of the PCB contamination appears to be a spill that occurred before the buildings were constructed. When the site was graded for building construction, the PCB contaminated soil was likely spread around the site.

Mr. Hoch went on to explain that in July and August of 2000 a PCB removal action was conducted in the area. During the removal action, soil was removed to a depth of four feet bgs, or until PCB concentrations were below 1 milligram per kilogram (mg/kg). But, even after the removal action, PCBs remained in the soil beneath the buildings. Therefore, some modeling was completed to evaluate possible migration of the PBCs into the buildings. The modeling indicated there was a possibility of vapor migrating through the slabs and into the buildings. In response, the Navy

collected some indoor air samples in the buildings. Samples were collected in three of the buildings that contained PCB concentrations in excess of the preliminary remediation goal (PRG) for indoor air.

Mr. Stortroen asked what effect the elevated concentrations could cause. Mr. Hoch replied that the elevated concentrations could result in an increased lifetime cancer risk. Mr. Stortroen then asked if there was any way to immediately tell if a person had been exposed to elevated concentrations. Mr. Hoch replied that at extremely high concentrations a person can exhibit a skin reaction to PCBs, but at lower concentrations there is no acute effect. Mr. Sullivan added that a specific cancer in an individual could not be directly associated with elevated PCBs concentrations, the risk is instead examined as an increased potential lifetime cancer risk in exposed populations.

Mr. Hoch explained that the field sampling plan was submitted in August. The plan details how soil, soil gas, wipe, and indoor ambient air samples will be collected. A phased approach will be used for the sampling. The initial phase will be used to evaluate if there is sufficient concentrations of vapor phase PCBs to seep through the building slab to the breathing zone at concentrations that could pose a risk to human health. Soil samples will be collected with a hand auger from a depth less than three feet bgs. Soil gas samples will be collected from temporary or semi-permanent monitoring wells. The first phase of sampling is scheduled to begin in November.

Mr. Hoch then stated that if vapor-phase PCBs are detected at concentrations above the criteria, wipe sampling will be conducted to evaluate if there is any particulate matter that contains PCBs that may also be contributing to PCBs in the breathing zone. If the wipe samples contain elevated PCB concentrations, the buildings will be cleaned with high efficiency particulate air (HEPA) filter vacuums and confirmation wipe samples will be collected to confirm that PCB-contaminated particulate matter has been removed.

Mr. Hoch further noted that the final phase will involve collecting indoor air samples to confirm that the indoor air concentrations do not exceed the appropriate criterion. If there are detections in excess of the criterion, additional responses will be evaluated.

Douglas Ryan asked what percentage of the ambient air samples had reported PCB concentrations in excess of PRGs. Mr. Hoch responded about twenty percent. Mr. Ryan then asked if the rooms were sealed during sampling. Mr. Hoch responded that the buildings were opened for 24 hours and then closed for 48 or 72 hours (in an effort to mimic typical residential conditions), and then sampled.

Ms. Smith asked if the 1999 investigation included analysis for methyl tert-butyl ether (MTBE). Mr. Hoch replied that MTBE should have been one of the compounds included in the volatile organic compound (VOC) analysis.

### **Site 31 Draft Remedial Investigation**

Mr. Sullivan noted that this was the last day of the comment period for the Site 31 Draft RI Report. Therefore, Mr. Sullivan opened the floor to comments.

Ms. Smith expressed concern that the RI went beyond characterizing the site and made recommendations based on the calculated risk. RAB members expressed their belief that the FS should evaluate responses based on both current and possible future site conditions. Specifically, the RAB members were concerned that the RI indicated that the debris areas did not pose a risk and no further action was needed under current site conditions. David Rist stated he made the comment that 11<sup>th</sup> Street should be identified as a separate area, and the risks associated with that area should be calculated separately.

Mr. Sullivan responded that the comments from the meeting, as well as all written comments, would be addressed in a Response to Comments for the Draft RI.

### **Sites 8, 28, and 29**

Mr. Sullivan stated that the schedule for the Draft RI for these sites has been delayed. The Draft RI will be submitted in November, and the December RAB meeting will be held within the public comment period. Therefore, a more detailed discussion of these sites will be included at the December RAB meeting.

### **Upcoming Documents and Field Schedule**

In the interest of time, the RAB members decided to forego a discussion of the upcoming documents and field schedule. The RAB was presented with documents that detailed these items.

### **August 2005 Meeting Minutes**

Mr. Sullivan opened the floor to discussion about the August meeting minutes. Mr. Gee commented that chloroethyl was misspelled on Page 7, paragraph 3. There were no other comments. Mr. Gee then made a motion to accept the minutes as noted. Mr. Brennan seconded and the motion was subsequently passed by the RAB.

### **Co-Chair Announcements**

Mr. Sullivan turned the discussion over to Alice Pilram. Ms. Pilram welcomed the newest RAB member, Walter Stortroen. Mr. Stortroen thanked everyone for the opportunity to participate. Mr. Sullivan indicated that the application recently

submitted by Anthony Fo was not readily available because the Navy was in the process of moving the San Diego office. The RAB made a motion to vote on Mr. Fo's application, and it passed unanimously.

The RAB then discussed the date and time for the December RAB meeting. Tentatively it was decided that the December RAB meeting would be held on Tuesday, 13 December, at 7:00 p.m., with the informal holiday potluck celebration beginning at 6:00 p.m.

Ms. Pilram commented that the field work that had taken place in the area of the sailing school had conflicted with a collegiate regatta that had been scheduled to occur at Treasure Island, but was then moved to Stanford.

There were no other announcements.

### **BRAC Cleanup Team Update**

Mr. Sullivan stated that there had been two BCT meetings since the last RAB meeting, one in September and one in October. The September meeting included a program update and a discussion of the HHRA approach for the Site 6 RI. The closure request for Site 7 was also discussed. Mr. Sullivan stated that based on these discussions the closure request letter was finalized and recently submitted. The BCT meetings also included discussions related to Sites 21 and 24 and the Draft HRA. Mr. Sullivan noted that the Navy is in the process of addressing comments on the Draft HRA, and is hoping to finalize the document in December. The Navy also is planning on presenting the results of the HRA at the December RAB meeting. Finally, upcoming documents and field activities were discussed at the BCT meetings.

Upcoming BCT meetings are scheduled for 1 November at the San Francisco offices of TtEMI and the December meeting will be held in San Diego.

### **Other Public Comment and Announcements**

Mr. Sullivan turned the floor over to Mr. Brennan for an update on the Citizens Advisory Board (CAB). Mr. Brennan said the CAB had a committee meeting on 6 September to discuss the design for development principles. The whole CAB met 13 September and approved comments for the TI Development Authority (TIDA). The October CAB meeting was canceled. The next CAB meeting is scheduled for Tuesday, 8 November.

Mr. Sullivan then asked if there were any other questions or comments. There were none.

### **Future Meeting Agenda Items**

Mr. Sullivan asked if there were any agenda items anyone would like to see included at the next RAB. He noted that the December agenda will include the HRA presentation. A property transfer update had been scheduled for December, but will be put on hold pending the Navy and the City agreeing on an updated transfer schedule. The property transfer update will most likely be presented at a RAB meeting in early 2006. Mr. Ryan requested that a Building 233 investigation update be included on a future agenda. Mr. Sullivan replied that there may not be data ready for the December RAB meeting, but that the Navy intended to include a Building 233 update as an agenda item when the data are available.

Mr. Sullivan and Ms. Smith noted that agenda issues could also be discussed at the scheduled conference calls.

### **Closing Remarks/End of Meeting**

Mr. Sullivan stated the next RAB meeting would be in December. There are conference calls scheduled for 2 November and 6 December. Mr. Sullivan also indicated that at some point the RAB should discuss meeting dates for 2006. He also pointed out that the Navy e-mail and phone numbers are the same after the move, and the new postal address was included on the agenda.

Mr. Sullivan then thanked everyone for coming and brought the meeting to a close. Mr. Sullivan adjourned the meeting at 8:54 p.m.

### **October 2005 RAB Meeting Handouts**

- Naval Station Treasure Island, Site 21 In Situ Bioremediation, October 18, 2005
- 2005 Status Update, Environmental Cleanup Program Activities, October 18, 2005, NAVSTA Treasure Island RAB Meeting
- Looking Ahead to 2006, Planned Environmental Cleanup Program Activities, October 18, 2005, NAVSTA Treasure Island RAB Meeting
- Halyburton Court Additional Polychlorinated Biphenyl Investigation, October 18, 2005, NAVSTA Treasure Island RAB Meeting
- Navy Field Schedule
- Document Tracking Sheet