

FORMER MARINE CORPS AIR STATION EL TORO
RESTORATION ADVISORY BOARD MEETING

May 25, 2005

MEETING MINUTES

The 75th Restoration Advisory Board (RAB) meeting for Marine Corps Air Station (MCAS) El Toro was held Wednesday, May 25, 2005 at the Irvine City Hall. The meeting began at 6:30 p.m. These minutes summarize the discussions and presentations from the RAB meeting.

WELCOME, INTRODUCTIONS, AGENDA REVIEW

Mr. Andy Piszkin, BRAC Environmental Coordinator (BEC) for MCAS El Toro and Marine Corps RAB Co-Chair stated that the next RAB meeting is scheduled for Wednesday, July 27, 2005 and will be in the regular meeting room from 6:30-9:00 p.m. Mr. Piszkin asked Ms. Marcia Rudolph, RAB Subcommittee Chair, to lead the Pledge of Allegiance. He then asked for self-introductions and reviewed the agenda for tonight's meeting. The key presentations this evening will cover the Public Meeting Component – Proposed Resource Conservation and Recovery Act (RCRA) Corrective Action Complete Determination and RCRA Facility Boundary Modification followed by a technical presentation and implementation plans for Soil Vapor Extraction (SVE) technology at various sites at the former station.

Review and Approval of the March 30, 2005 RAB Meeting Minutes

Mr. Bob Woodings asked for any changes or comments in regard to the RAB meeting minutes. No changes were offered and the March 30, 2005 RAB meeting minutes were approved by the RAB.

Announcements

Mr. Piszkin said the Department of the Navy has received the 2005 Integrated Project Award from the Santa Ana Watershed Coalition for the Irvine Desalter Project. The award was presented to the project managers for the project, Mr. Karnig Ohannessian, Navy Remedial Project Manager, and Mr. Steve Malloy, Senior Engineer with the Irvine Ranch Water District (IRWD). Mr. Piszkin presented Certificates of Recognition dated April 28, 2005 from the California State Assembly, California State Member of the Assembly Gloria Negrete McLeod, 61st District, California State Senate-Senator Bob Dutton, and from Gov. Arnold Schwarzenegger. Mr. Piszkin read aloud to the RAB the letter from Gov. Schwarzenegger.

Mr. Piszkin said the Irvine Desalter Project 100 Percent Design submittal will be submitted to the BRAC Cleanup Team (BCT) on May 31, 2005. He added that land has been purchased by IRWD for the shallow groundwater treatment plant and that locations for all off-station wells have been approved.

He said that a site tour was held on April 13, 2005 and that another tour for RAB members may be planned for this summer.

Mr. Piszkin gave an update on the Locations of Concern (LOCs), and this information is included in the latest BRAC Business Plan for former MCAS El Toro. The Potential Release Locations (PRLs) have been removed from the list as LOCs because the regulatory agencies do not consider them, at this time, to be sites where contaminants were released. If investigations of the PRLs warrant that further investigation or cleanup action is necessary, they will become LOC sites and then added to the total number.

Of the 939 LOCs, 839 have been closed as of December 2004. A tremendous number of these were No Further Action Site Closures. He mentioned that Mr. Tayseer Mahmoud, Project Manger with Cal/EPA Department of Toxic Substances Control, has helped close about 550 LOCs. Mr. Piszkin then read a thank you letter to Mr. Mahmoud which was signed by both RAB Co-Chairs and RAB Subcommittee Chair. He said Mr. Mahmoud was a key part of the partnership that helped with document review for closure of these sites and he had a big hand in the progress made at MCAS El Toro.

Mr. Piszkin then provided a summary of the recent, ongoing environmental restoration activities at MCAS El Toro Installation Restoration Program (IRP) sites:

Finding of Suitability to Transfer (FOST) #2 - This document was issued for public comment and the comment period ends June 17, 2005. An errata sheet was also distributed for an added carve-out area where an underground storage tank (UST) for petroleum products was discovered. Tonight's presentation by DTSC will be for the RCRA Corrective Action Completion Determination and the Final FOST#2 which is expected to be signed in August 2005.

Groundwater Monitoring Program - The program is moving toward a series of site-specific monitoring programs in summer 2005. Monitoring wells that will no longer be used or have been determined to be redundant will be closed. Round 21 of the stationwide groundwater monitoring program was completed in March 2005.

Potential Release Locations (PRLs) - These areas have been addressed in four groupings and all field work for Groups III and IV is expected to be completed by June 2005. Plans call for submitting the Site Summary Reports for these PRLs to the BCT in the June-July 2005 timeframe.

Community Relations Plan (CRP) - This document should have been completed a few months ago, but the Navy has been more focused on preparing proposed plans and fact sheets. The Final CRP will be issued in late June 2005. He added that an update to the status of the IRP sites is necessary and will be included in this document.

Radiological Program - It is anticipated that the Final Mini Release Report will be issued by July 2005. The California Department of Health Services had some questions about the background level for radiation and is reevaluating its current model. The Navy is looking at different risk models will need to address this on a site specific basis at MCAS El Toro. It is expected that this issue will not be sorted out until July 2005.

Installation Restoration Program Sites:

Site 1, Explosives Ordnance Disposal (EOD) Range – The aquifer test will be starting on June 13, 2005. There is a perchlorate plume at the site and this test will take about 2 weeks to complete the fieldwork. Other follow-up tests will be conducted throughout the summer to further characterize the plume and subsurface conditions at the site.

Sites 2 and 17, Magazine Road and Communication Station Landfills – The 100 percent remedial design is expected to be approved by the BCT in July 2005 and construction of the landfill caps would commence in August 2005. At Site 2, activities currently being conducted include the decommissioning of wells and installation of a new well and rehabilitation of piezometers in other wells. The preliminary Draft Feasibility Study Addendum for determining appropriate groundwater cleanup alternatives is undergoing BCT review.

Sites 3 and 5, Original and Perimeter Road Landfills – The Navy has received BCT comments on the Draft Feasibility Study Addendum and the draft final version of the document is being prepared. The BCT has been provided with the Draft Proposed Plan and the Navy is awaiting agency comments.

Anomaly Area 3 (AA3) – A combined the remedial investigation/feasibility study report is being prepared and is due to the BCT on July, 25 2005.

Site 8 and 12, Defense Reutilization and Marketing Office (DRMO) – The Draft Proposed Plan was issued in March 2005 for BCT review. Also, a Site 8 Draft Final FS Addendum is being prepared and is due to the BCT on June 13, 2005. The Draft Final Proposed Plan is due June 23, 2005 for BCT review and concurrence.

Site 11, Transformer Storage Area – The Site 11 fact sheet that describes the soil excavation and hauling is being completed and will be mailed to the public during the week during the first week in June 2005. The fieldwork will be conducted from June to July 2005.

Site 16, Crash Crew Pit No. 2 – The Draft Remedial Design is scheduled to be issued to the BCT in June 2005. The Navy just submitted the SVE for Groundwater Implementation Work Plan for BCT review.

Site 18, On-station and Off-station Contaminated Groundwater – The 100 Percent Draft Remedial Design is due May 31, 2005. After the Explanation of Significant Differences is completed, the 100 Percent Remedial Design can then be finalized.

Site 24, (VOC Source Area) – The Site 24 fact sheet will be submitted to the BCT next week for review. The Vadose Zone (soil) No Further Action (NFA) Draft Proposed Plan was issued to the BCT for review on April 1, 2005 and the insert to this Proposed Plan was issued on May 2, 2005. If there are no comments on the insert, the Draft Final Proposed Plan will be issued in the next week or two for BCT concurrence.

RAB Subcommittee Meeting Report, Ms. Marcia Rudolph, RAB Subcommittee Chair

Ms. Rudolph said the RAB Subcommittee meeting that was held at 5:00 p.m. to 6:00 p.m. tonight before the RAB meeting here at Irvine City Hall in Room L-104. She said she

appreciates that the regulators from U.S. EPA and Cal/EPA Department of Toxic Substances Control (DTSC) for attending and thanked them for their time. The meeting is a good opportunity for community members to further discuss topics concerning MCAS El Toro. She said both the Community Co-Chair and herself bring letters and documents they receive and share them with the Subcommittee meeting attendees. She added that anyone interested is welcome to attend.

Topics discussed tonight were regarding:

Ms. Rudolph said the RAB site tour held on April 13, 2005 was an excellent experience. She said she brought Ms. Kathy McCulla, who lived on the former station back in the 1960s and early 1970s. She said that Ms. McCulla was always skeptical about the cleanup effort. However, after the tour Ms. McCulla said the Navy had answered all of her questions clearly and there was a great professional attitude. She also told Ms. Rudolph that the tour provided an excellent opportunity for someone who did not know the rationale of the cleanup process to learn about the various approaches being taken. She said that the tour was a good experience for someone who was new to the site.

Perchlorate remains an issue of concern to the RAB Subcommittee.

For Site 2, the RAB Subcommittee would like to see a timeline and the interface for Borrego Canyon Wash and the Alton Parkway roadway project.

There are radiological questions from community members and we need to make them aware of the master document that shows where all the different studies and information is located.

Ms. Rudolph said she would be out of town for the next RAB and RAB Subcommittee meeting scheduled for July 27, 2005. She requested that the next RAB Subcommittee meeting be held in September. The RAB concurred with her request.

She said some people are inquiring on how to fast track the base closure processes with other stations. She offered her insights and what she has learned from her years of involvement with MCAS El Toro. She said a dedicated effort by the Navy and Marine Corps and their staff is required, a similar dedication by the regulators is needed, and the efforts of the RAB meeting participants and community members and expertise they bring to the table and being good stewards to the community is most important. For other closing bases to replicate the successes at MCAS El Toro, community members need to be told from the beginning the cleanup effort is a long-term commitment.

Navy Responses to Subcommittee Comments

Mr. Piszkin first responded to perchlorate. He said Navy contractors are conducting aquifer tests and a treatability study this summer at Site 1 where perchlorate is present in groundwater. The BCT was given a thorough presentation earlier today of the latest information and what will be done this summer. He added that these activities are on schedule.

For Site 2 and the request for a general timeline, Mr. Piszkin said that construction of the landfill cap is planned to start this summer and last six months. He said this should not affect Alton Parkway roadway project at all. B. Woodings said that the Navy has coordinated very well with the City of Lake Forest about their construction efforts. The landfill is in the lead project and its interface with Borrego Canyon Wash will be stabilized. The Alton Parkway roadway project will follow the lead of the landfill project. Ms. Content Arnold, Navy Lead Remedial Project Manager (RPM), said that with Site 2, the Draft Feasibility Study (FS), for groundwater has been issued to the BCT for review and comments are due tomorrow. She added that the Draft Proposed Plan will be provided to the BCT for review shortly. The public comment period is planned for October 2005.

Mr. Piszkin said regarding radiological concerns and a master document, the Updated Community Relations Plan is due out in late June 2005. A section of this document has been prepared in response to RAB concerns and it shows where all the different studies and information are located.

Mr. Piszkin said that MCAS El Toro is a good example when it comes to a base transfer success story. He said he agrees with Ms. Rudolph about the need for coordination with the community members and for the Navy to consider RAB member and community feedback and take their advice. He noted that the Navy runs the various cleanup programs, and it is evident here at El Toro where the Navy speaks directly to the community about the various sites. The Navy guides the consultants who offer their expertise and advice, but the Navy's RPMs know the issues and can speak about those sites that are their responsibility. He emphasized that in regard to reuse issues of a closing base these need to be kept outside of the cleanup effort. There are those that will take the environmental program and use it against their opponents. This can slow things down and can cast a negative light onto the community, but with MCAS El Toro the Navy made sure, for the most part, such conflict was taken outside of the RAB meetings. He added that it takes good, open relationships with the regulators and working together as a team to make a base closure successful.

NEW BUSINESS

Regulatory Agency Comment Update

Tayseer Mahmoud, Project Manager, Cal/EPA Dept. of Toxic Substances Control (DTSC)

T. Mahmoud said since the March 2005 RAB meeting, DTSC has given their approval for:

The Revised Sampling Strategy for Aerial Photograph Anomaly (APHO 122).
Closure Report for Oil Water Separator (OWS) 759A and Underground Storage Tank (UST) 759B.

DTSC gave comments on the following:

Draft Feasibility Study Addendum, Operable Unit 2C, IRP Landfill Sites 3 and 5.
DTSC asked for further clarification on a few issues on the description of waste consolidation and provided the applicable or relevant and appropriate requirements from other state oversight agencies.

Information Package for Removal and Disposal of Residual Liquids from AST 836A and AST 386B and requested that additional areas be analyzed around the hydraulic

lift and the footprint of the building to determine if there was additional release. The 90 Percent Design Submittal for the Irvine Desalter Project, Operable Unit 1 (Site 18) and Operable Unit 2A (Site 24) Groundwater asking for further clarification and discussion on the central treatment plant, treatment requirements under the new scenario for the shallow groundwater unit, potential use of an existing Navy pipeline, and some clarifications on design drawings.

DTSC gave concurrence for No Further Action on the following:

Summary Report for Aerial Photograph Anomaly (APHO) 38 for No Further Action.
Information Package for Oil/Water Separator Sites 675B (Solid Waste Management Unit (SWMU) 292) and 675C) for No Further Action.

Information Package for Oil/Water Separator Site 674B (Solid Waste Management Unit (SWMU) 189) and 674C) for No Further Action.

Mr. Piszkin noted that Mr. Mahmoud is still helping on the project and assisting Mr. Frank Cheng, DTSC Remedial Project Manager, with review of technical documents. He also noted that Mr. Mahmoud has recently taken care of reviewing and approving the backlog of LOC reports.

Richard Muza, Project Manager, U.S. Environmental Protection Agency (U.S. EPA) Region IX

Mr. Muza said he has been working on this project for the past 8 months and is thrilled to be associated with such a good team.

Mr. Muza said U.S. EPA had no comments on the following:

Summary Report for Group II PRLs and that the one comment on the Group I PRLs has been responded to by the Navy.

Draft Proposed Plan for Site 24, VOC Source Area.

Draft Radiological Release Report for Buildings 243, 295, 319, 360, 787, 832, and 1789 and Steve Dean, U.S. EPA Radiological Support, thought the document was very well prepared.

Mr. Muza said he provided U.S. EPA comments on the following:

Draft FS Addendum for Operable Unit (OU) 3A, IRP Site 8.

Ninety Percent Design Submittal for the Irvine Desalter Project, comments have been incorporated.

Site 8 and 12 Draft Proposed Plan.

Draft FS Addendum for OU 2C, IRP Sites 3 and 5.

Draft FS addendum for Site 2 Groundwater.

Public Meeting Component – Proposed Resource Conservation and Recovery Act (RCRA) Corrective Action Complete Determination and RCRA Facility Boundary Modification, Tayseer Mahmoud, Department of Toxic Substances Control

Mr. Piszkin gave an introduction and pointed out the parcels that are included in the Draft Final Finding of Suitability to Transfer (FOST) #2. He said this property is being purchased by Lennar and consists of five carve-out areas that make up portions of Parcels

II and III. He added that Mr. John Broderick, Regional Water Quality Control Board (RWQCB) Project Manager, helped to increase the acreage of the FOST #2 up to about 7.8 acres with RWQCB concurrence of no further action for about 2,200 feet of petroleum pipeline. These areas will move from leased areas into transferable areas. The FOST # 2 areas are what DTSC's RCRA Corrective Action Complete Determination is addressing. Regarding FOSTs, Mr. Piszkin said the Navy will probably issue them on an annual basis to move carve-outs from leased areas to areas ready for transfer.

Mr. Mahmoud said DTSC is working as the enforcement agents and corrective action overseers for the federal Resource Conservation and Recovery Act (RCRA) at MCAS El Toro. He said that MCAS El Toro is classified as a hazardous waste facility under RCRA. A hazardous waste facility is defined as any facility that treats, stores, recycles, or disposes of hazardous waste after 1980. He added that being a hazardous waste facility, MCAS El Toro is subject to the RCRA corrective action. Corrective action is required of a hazardous waste facility to cleanup contamination that resulted from past practices. The RCRA Corrective Action Complete Determination that DTSC is making officially says that all hazardous waste materials have been removed from 7.8 acres that comprise FOST #2. This determination allows the Navy to transfer clean parcels at Former MCAS El Toro to new owners without transfer of the liability for corrective action.

The state of California, through DTSC, is obligated to enforce its RCRA hazardous waste control law on behalf of the people of California pursuant to the California Health and Safety Code Division 4, Chapter 6.5. On August 1, 1992, the U.S. EPA granted authorization to DTSC to manage the program in lieu of the federal RCRA.

MCAS El Toro submitted Part A Application on November 14, 1980. An interim status document was issued March 31, 1981, and the RCRA Permit was issued June 30, 1986. DTSC accepted the Closure Certification for hazardous waste storage March 9, 1996. The RCRA permit expired in August 2003.

Mr. Mahmoud said the RCRA corrective action applies to the hazardous waste and constituents, solid waste management units (SWMUs), hazardous waste management units, and fence line to fence line and extends beyond the facility boundary, where appropriate.

A SWMU means that any unit at a hazardous waste facility from which hazardous waste constituents might migrate, irrespective of whether the units were intended for management of wastes, including but not limited to:

- | | |
|----------------------|---------------------------------|
| containers | landfills |
| tanks | incinerators |
| surface impoundments | boilers and industrial furnaces |
| land treatment units | underground injection wells |

These units are also covered under the Comprehensive Environmental Response,

Compensation, and Liability Act (CERCLA) which mirrors RCRA; however, RCRA also includes petroleum sites. CERCLA cannot be used as a legal authority for petroleum releases. The major goals of both CERCLA and RCRA processes are the same: to protect human health and the environment, includes the public in decision-making process, and to attain effective cleanup standards.

In order for DSTC to determine that the site is clean, a RCRA Facility Assessment was prepared for El Toro in 1996. The RCRA Facility Assessment collected existing information on containment releases and identified investigations or suspected releases needing further investigation. This included both pre-1980 releases (CERCLA sites) and post-1980 releases.

The Corrective Action Complete Determination officially recognizes that all hazardous waste contamination has been cleaned and there are no restrictions on property being transferred. This includes underground/above ground storage tank cleanup programs overseen by RWQCB and the Orange County Health Care Agency (OCHCA). Mr. Mahmoud said that that the agencies involved in these oversight activities have not duplicated each others work. Review of petroleum sites and DTSC's determination for petroleum sites is based on the evaluations and recommendations of the respective agency findings.

The Draft Final FOST #2, summarizes the Navy's environmental investigation and cleanup activities conducted for each of the parcels proposed for transfer. The FOST provides the necessary disclosure, notifications, and use restrictions that apply to each parcel. Mr. Mahmoud said the property is clean and there are no restrictions on reuse. The slide below presented by Mr. Mahmoud summarizes the findings by parcel.

Parcel	Acreage	Number of facilities	Location of Concern
II	7	8	19
III	1	1	7

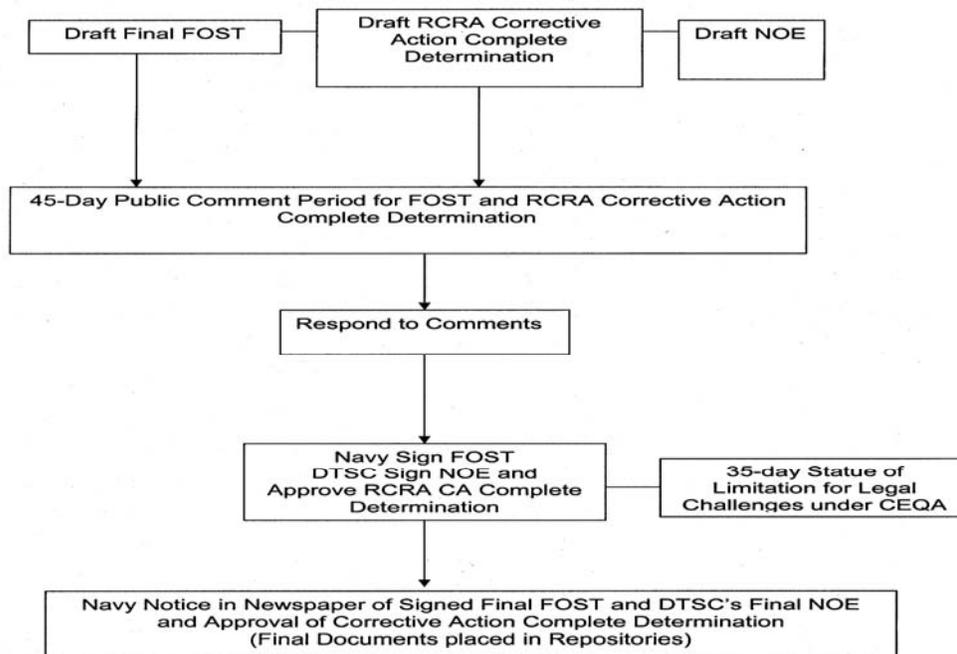
Mr. Mahmoud clarified that no physical activities are to be conducted. This is an administrative decision and paperwork exercise by DTSC that states previously completed investigation and cleanup efforts conducted under the oversight of DTSC, U.S. EPA, RWQCB, and OCHCA on property identified in the FOST #2 have satisfied the corrective action requirements under RCRA and California Hazardous Waste Control Law.

To comply with the California Environmental Quality Act (CEQA), DTSC will prepare a Draft Notice of Exemption (NOE) for this project. DTSC has determined that the RCRA Corrective Action Complete Determination for the FOST #2 parcels and the changes to Former MCAS El Toro boundaries will not have a significant effect on the environment. Mr. Mahmoud said that if DTSC had not exempted this from CEQA and a removal action would have been required, other environmental reviews and documentation would have been necessary.

The public is encouraged to comment on the Draft Final FOST #2 and DTSC's Draft RCRA Corrective Action Complete Determination and RCRA Facility boundary modification for MCAS El Toro during the 45-day public comment period that runs from May 3 through June 17, 2005. These documents are available for review in the Information Repository located at the Heritage Library and at MCAS El Toro at Building 83.

Mr. Mahmoud also showed a flow chart on the public notice process (see below). He noted that public has 35-days after the FOST #2 and the DTSC Draft Notice of Exemption are signed to challenge DTSC if they do not agree with DTSC's decision. After it is signed, there will be a public notice in the newspaper.

EL TORO PUBLIC NOTICE FLOW CHART



Any written comments on the Draft Final FOST #2 should be sent to Mr. Andy Piszkin, MCAS El Toro BEC. Any written comments on the Draft RCRA Corrective Action Complete and Draft NOE should be sent to Mr. Frank Cheng, DTSC Project Manager.

Discussion

Mr. Peter Hersh, RAB member, asked if CEQA is an administrative action. Mr. Mahmoud said it is just a document review and paperwork exercise pertaining to the closure reports that state there is no cleanup needed and there is no environmental impact, and that the RCRA requirements are complete.

B. Woodings asked what the public meeting notification was for this action. Mr. Mahmoud said a fact sheet was mailed out to those on the Navy's El Toro community

relations mailing list, a public notice was published in the *Orange County Register* and the *Los Angeles Times*, and the presentation tonight at this public meeting. When the FOST #2 is signed, another public notice will be published to announce the signing.

Mr. Hersh noted that he found out about this issue in a mailer sent by DTSC and that he read the documents at the station where the Administrative Record is housed.

Soil Vapor Extraction (SVE) General Principles and Site Applications, Karnig Ohannessian and Marc P. Smits, Navy Remedial Project Managers.

Mr. Karnig Ohannessian, Navy RPM, said the SVE refers to soil vapor extraction and it is one of the most widely used soil treatment technologies for cleaning up contaminated soil for CERCLA and RCRA sites. He also noted that U.S. EPA has identified SVE as a preferred approach or presumptive remedy for remediation of volatile organic compounds (VOCs).

SVE systems are designed to remove chemicals that have a tendency to volatilize or evaporate easily by applying a vacuum through a system of underground wells installed above the water table. VOCs are pulled from the subsurface soils in vapor or gas form. At the surface, the soil vapor is passed through a granular activated carbon filter system. VOCs in the vapors are trapped on the filters and clean air is dispersed to the atmosphere. The activated carbon is regenerated so it may be reused.

Mr. Ohannessian explained that some of the advantages for SVE are proven performance, equipment is readily available and easy to install, short treatment times of usually 6 months to 2 years, cost effectiveness, it is easily combined with other technologies, and it can be used under buildings or in areas that cannot be excavated. Some of the disadvantages are the contaminant concentration reductions greater than 90 percent are more difficult to achieve, effectiveness is less certain with low-permeability soil, air emission permits are generally required, and it can only treat unsaturated-zone soils while other treatment methods may also be needed for saturated-zone soils and groundwater.

Mr. Ohannessian said the effectiveness of an SVE system at a given site depends on the properties of the soil and the properties and distribution of the chemicals in the subsurface. SVE is best suited to sites with permeable soil such as sand. If you have silt and silty-sands, SVE works well. He added that soils at MCAS El Toro are particularly compatible with SVE. It is more difficult to remove contaminants from clays and glacial till soil. The more volatile the chemical the easier it is to remove. For example, gasoline would be the easiest to remove because it is highly volatile, but less volatile chemicals such as heavy heating oils are harder to extract.

Mr. Ohannessian went over the following key points for successful SVE implementation:

- Delineation of soil contamination
- Evaluation of soil conditions and physical properties
- Placement of soil vapor extraction wells and monitoring points

These factors help with conducting the following activities:

- Selecting an appropriate SVE unit for specific soil conditions and contamination
- Removing contaminants from vapor stream
- Optimizing the SVE system after startup
- Collecting sufficient monitoring data to evaluate the effectiveness of SVE.

He said to optimize the system operators need to know how much mass is being removed and how much is left in place. Also, when the system is turned off, investigators need to also know how much contamination will remain in the soil.

Mr. Ohannessian reviewed the steps in the SVE life cycle which consist of a pilot test, design, construction, startup, operation and maintenance (O&M), and shutdown.

Key steps of the pilot test include the following:

- Installing pilot wells (screen, spacing, layout, soil sampling)
- Conducting “Step Test” to obtain vacuum-flow response data
- Conducting “Constant Rate Tests” to measure flows and induced pressure gradients at various applied vacuums
- Collecting soil vapor samples for laboratory analysis

He noted that if the pores in the soil are filled with water air will not flow. After conducting the step test, the range of the vacuum effect will be known so certain points can then be selected to run a longer constant-rate test to measure flows to determine if stronger vacuum pressure can be achieved and measure the distances from the various collection points to the SVE well. Monitoring wells are used to gather this data. Samples of soil vapor are collected for laboratory analysis and all this data is plugged into a computer model for further analysis.

Key steps of the design include the following:

- Using pressure response measurements to estimate vacuum radius of influence
- Using flow, porosity, moisture content, bulk density, temperature, vacuum radius of influence, etc. to estimate soil permeability and effective radius of influence (based on critical flow velocity)
- Determining number and layout of extraction and monitoring wells
- Using Step-Test data to size blower, flow data to size pipes, soil vapor data to select air pollution control technology

He noted that it is most important to determine where to place the screens in the wells to most efficiently extract the contaminant vapors.

During construction and startup a lot of “off-the-shelf” technologies are used so the contractors will be able to design the system to match what has been approved by the Navy and the regulators. This phase of the project is generally conducted considerably faster than the pilot test and design.

During the operation and maintenance the system is adjusted to run in a highly efficient manner to remove as much contamination as possible. The system is periodically shutdown to see if there is a “rebound” effect. If there is “rebound” residual contamination in the soil will build back up. The system can then be turned back on to remove it. Generally, an SVE system will be operated until there is no longer any rebound which indicates that all the contamination that can be removed by the system has been removed. This is referred to as “asymptotic behavior.” At this point a decision is made by the regulatory agencies whether the system should be shutdown.

Previous SVE use at MCAS El Toro

Mr. Marc Smits, Navy RPM, discussed the use of SVE at MCAS El Toro. SVE pilot tests were conducted at two UST sites to evaluate removal of the removal of gasoline contamination from the soil. He added that anytime an SVE pilot test is conducted a lot more is learned about site conditions and if it is possible to try SVE at other El Toro sites. The more often SVE is tested at similar sites the more is known of where else it can be applied. SVE tests were also conducted at three UST sites to evaluate the removal of heating oil contamination from the soil. SVE successfully remediated VOC concentrations at Site 24 and a Proposed Plan is currently being prepared to propose that no further action is necessary for soil. He emphasized that systems generally consist of “off-the-shelf” components and can easily be modified to meet site-specific conditions.

The hot spots of contamination can be reduced with smaller units. The system at Site 24 was a large-scale design and setup that involved more monitoring. Most of the piping at Site 24 was aboveground, but piping can be placed underground at many sites.

Mr. Smits discussed some of the other SVE units that have been used at MCAS El Toro. At the UST-651 site, a former gas station, a lot of different piping was used to meet the characteristics of that site and to control the flow from the wells. At the UST-1B site, more carbon units were used which shows the complexity of concentrations of contamination. At the UST-390 site, portable the units were used to collect vapors from small pockets of contamination.

Mr. Smits said the Navy is planning to conduct two additional SVE tests in the summer of 2005 at Site 16 and UST-273B. Site 16 consists of both total petroleum hydrocarbon and VOC contamination in the soil from fire-fighter training activities. At UST-273B the tank and contamination was delineated by soil borings. Through the borings, heating oil contamination was detected down to 60 feet. Plans call for using three wells to obtain appropriate coverage and it is important to make sure the wells are not working against each other. Data obtained will determine at what depths screen in the wells should be placed to remove the contaminant vapors. He added that the key is determining where to put the wells and the well screens. The results from the SVE tests at these two sites will assist in the evaluation of the use of SVE at other sites with similar contaminants and soil conditions.

Open Q & A -- Environmental Topics

Mr. Piszkin said last year there was much work done in support of the initial FOST and in anticipation of the property auction and transfer. The Compliance Program will continue to be the focus of the Navy's goal of transferring property. He said that Mr. Smits and Ms. DeAnna Dunbar, Navy RPMs, have increased roles in managing the compliance projects. For these remaining compliance sites, the Navy will focus on using small business contractors and anticipate that at least 40 percent of the work will go to small business or 8-A contractors. Overall, the Navy has reconstituted the procurement and management of the compliance program in order to be more efficient.

Mr. Piszkin opened the floor to any questions or comments.

MEETING EVALUATION AND FUTURE TOPICS

Suggestions for future presentation topics include:

None were offered.

Upcoming RAB Meeting and Subcommittee Meeting

The next RAB meeting will be held from 6:30 to 9 p.m., July 27, 2005, next to the regular meeting location, Irvine City Hall, Conference and Training Center (CTC) in L-102 Conference Room, One Civic Center Plaza, Irvine. This meeting will also be a public meeting for the Site 24 Proposed Plan that proposes No Further Action for soil. No RAB Subcommittee meeting will be held before the July 2005 RAB meeting.

Recent RAB Subcommittee Meetings

The most recent RAB Subcommittee meeting was held May 25, 2005, in Room L-104, Irvine City Hall, before tonight's RAB meeting. The next RAB Subcommittee meeting will be held before the September 2005 RAB meeting.

RAB Meeting Adjournment – May 25, 2005 Meeting

The 75th meeting of the MCAS El Toro Restoration Advisory Board was adjourned at 8:58 p.m.

3/30/05 RAB Meeting Attendance:

<u>TOTAL</u> PEOPLE IN ATTENDANCE	<u>TOTAL</u> PEOPLE ON SIGN-IN SHEET	<u>TOTAL</u> RAB MEMBERS PRESENT	<u>TOTAL</u> RAB AGENCY MEMBERS PRESENT	<u>TOTAL</u> RAB COMMUNITY MEMBERS PRESENT	<u>TOTAL</u> EXCUSED ABSENCES RAB MEMBERS	EXCUSED ABSENCES – AGENCY RAB/ COMMUNITY RAB
21	21	6	2	4	0	0

RAB and Subcommittee Meeting Schedule (March 2005 – July 2005)

RAB and Subcommittee Meeting Dates	RAB Meeting Conference and Training Center (CTC) 6:30 – 9:00 p.m.	Subcommittee Meeting Room L-104 5:00 – 6:00 p.m.
Wed – July 27, 2005	CTC	Room L-104
Wed – September 28, 2005	CTC	None scheduled
Wed – October 26, 2005*	CTC	Room L-104
Wed – January 25, 2006	CTC	Room L-104

* optional meeting

Materials/Handouts Include:

- *RAB Meeting Agenda/Public Notice – 5/25/05 RAB Meeting – 75th Meeting.
- *Meeting Minutes from the March 30, 2005 RAB Meeting – 74th Meeting.
- MCAS El Toro Environmental Status – May 2005.
- MCAS El Toro RAB Membership Roster (revised March 2005).
- MCAS El Toro Installation Restoration Program – Mailing List Coupon.
- MCAS El Toro RAB Mission Statement and Operating Procedures.
- MCAS El Toro RAB Meeting Schedule, Full RAB and RAB Subcommittee (May 2005-January 2006).
- RAB Membership Application – MCAS El Toro RAB.
- MCAS El Toro – BRAC Cleanup Team Members and Key Project Representatives and Administrative Record File and Information Repository Locations and Contacts.
- Internet Access – Environmental Web Sites.
- One-Page Glossary of Technical Terms.
- Environmental Data Quality, September 2003.
- Department of Navy – Policy for Conducting Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Statutory Five-Year Reviews, November 2001.
- Department of Navy – Policy for Optimizing Remedial and Removal Actions Under the Environmental Restoration Programs, April 2004.
- Department of Defense – Institutional Controls, Spring 1997.
- Department of Defense – A Guide to Establishing Institutional Controls at Closing Military Installations, February 1998.
- Department of Defense – Memorandum - Responsibility for Additional Environmental Cleanup after Transfer of Real Property, 1997.
- U.S. EPA Fact Sheet – A Citizen’s Guide to Natural Attenuation, October 1996.
- Brochure – Commonly Asked Questions Regarding the Use of Natural Attenuation for Chlorinated Solvent Spills at Federal Facilities (Brochure developed through a partnership of U.S. EPA, Air Force, Army, Navy, and Coast Guard).
- U.S. EPA Fact Sheet – Checking Up on Superfund Sites: The Five-Year Review, June 2001.
- Findings of Suitability to Transfer (FOST) #2, Former MCAS El Toro Map.
- *Presentation* – RCRA Corrective Action Complete Determination & RCRA Facility Boundary Modification for MCAS El Toro, May 2005, presented by Tayseer Mahmoud, Project Manager, Cal/EPA, Dept. of Toxic Substances Control.
- *Presentation* – Soil Vapor Extraction (SVE) General Principles and Site Applications, for the May 25, 2005 Restoration Advisory Board Meeting for Former MCAS El Toro, presented by Karnig Ohannessian and Marc P. Smith, Navy Remedial Project Managers.
- Certificates of Recognition from the Third Annual Santa Ana Watershed Awards Banquet and Reception, for Former MCAS El Toro.

* Mailed to all RAB meeting mailer recipients on 5/18/05.

Agency Comments and Letters - U.S. Environmental Protection Agency (U.S. EPA)

- U.S. Environmental Protection Agency – Anomaly Area 3 Proposed Schedules Inclusion in Federal Facility Agreement (FFA) Appendix A Schedule, Former Marine Corps Air Station El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro; From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 5, 2005).
- U.S. EPA – Draft Feasibility Study (FS) Addendum for Operable Unit 3A, IRP Site 8, Former Marine Corps Air Station (MCAS) El Toro – To: R. Andrew Piszkin, BEC, MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 6, 2005).
- U.S. EPA – Summary Report for Group 2 Potential Release Locations (PRLs), Environmental Baseline Survey, Former Marine Corps Air Station El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 7, 2005).
- U.S. EPA – Review of the 90 Percent Design Submittal, Irvine Desalter Project, Irvine Ranch Water District, Irvine – To: Steven L. Malloy, Irvine Ranch Water District, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 14, 2005).
- U.S. EPA – Anomaly Area 3 Federal Facility Agreement (FFA) Appendix A Schedule Update and Extension Request, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 25, 2005).
- U.S. EPA – Draft Proposed Plan for Installation Restoration Program (IRP) Sites 8 and 12, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, , MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 25, 2005).
- U.S. EPA – Draft Proposed Plan for Installation Restoration Program (IRP) Site 24 VOC Source Area, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, , MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 25, 2005).
- U.S. EPA – Extension Request for Installation Restoration Program (IRP) Sites 3 and 5, Federal Facility Agreement (FFA) Appendix A, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated April 28, 2005).
- U.S. EPA – Draft Radiological Release Report for Buildings 242, 243, 295, 319, 360, 787, 832, and 1789, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, , MCAS El Toro, From: Rich Muza, Remedial Project Manger, U.S. EPA (letter dated April 29, 2005).
- U.S. EPA – Draft Feasibility Study Addendum (FSA), Operable Unit 2C, Installation Restoration Program (IRP) Sites 3 and 5, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, , MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated May 4, 2005).
- U.S. EPA – Draft Feasibility Study Addendum (FSA), Operable Unit 2B, Installation Restoration Program (IRP) Site 2 Ground Water, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Rich Muza, Remedial Project Manager, U.S. EPA (letter dated May 16, 2005).

Agency Comments and Letters – California Environmental Protection Agency (Cal-EPA)

- Cal-EPA, Department of Toxic Substances Control (DTSC) – Summary Report for Aerial Photograph Anomaly (APHO) 38, Former MCAS El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro; From: Manny Alonzo, Unit Chief, DTSC (letter dated April 6, 2005).
- Cal-EPA, DTSC – Information Package for Oil/Water Separator Sites 675B (Solid Waste Management Unit (SWMU) 292) and 675C, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Manny Alonzo, Unit Chief, DTSC (letter dated April 15, 2005).
- Cal-EPA, DTSC – Information Package for Oil/Water Separator Site 674B (Solid Waste Management Unit (SWMU) 189) and 674C, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Manny Alonzo, Unit Chief, DTSC (letter dated April 15, 2005).
- Cal-EPA, DTSC – Comments o the 90 Percent Design Submittal, Irvine Desalter Project (IDP), OU 1 (Site 18) and OU 2A (Site 24) Groundwater, Former Marine Corps Air Station, El Toro – To: Steven L. Malloy, Irvine Ranch Water District, From: Frank Cheng, Remedial Project Manager, DTSC (letter dated April 19, 2005).

- Cal-EPA, DTSC – Approval of the Revised Sampling Strategy for Aerial Photograph Anomaly (APHO 122), Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Manny Alonzo, Unit Chief, DTSC (letter dated April 27, 2005).
- Cal-EPA, DTSC – Information Package for Removal and Disposal of Residual Liquids from AST 386A and AST 386B, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Frank Cheng, Remedial Project Manger, DTSC (letter dated May 4, 2005).
- Cal-EPA, DTSC – Draft Feasibility Study Addendum, Operable Unit 2C, Instillation Restoration Program (IRP) Landfill Site 3 & 5, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Frank Cheng, Remedial Project Manager, DTSC (letter dated May 11, 2005).
- Cal-EPA, DTSC – Approval of Closure Report for Oil Water Separator (OWS) 759A and Underground Storage Tank (UST) 759B, Former Marine Corps Air Station, El Toro – To: F. Andrew Piszkin, BEC, MCAS El Toro, From: Manny Alonzo, Unit Chief, DTSC (letter dated May 12, 2005).

California Regional Water Quality Control Board (RWQCB), Santa Ana Region

- No Items Submitted

Additional Information Submitted – 5/25/05 RAB Meeting

- Irvine Ranch Water District – Irvine Desalter Project Update, To: MCAS El Toro Restoration Advisory Board, From: Steve Malloy (Memorandum dated May 25, 2005).

Copies of all past RAB meeting minutes and handouts are available at the MCAS El Toro Information Repository, located at the Heritage Park Regional Library in Irvine. The address is 14361 Yale Avenue, Irvine; the telephone number is (949) 551-7151. Library hours are Monday through Thursday, 10 am to 9 p.m.; Friday and Saturday, 10 am to 5 p.m.; Sunday 12 p.m. to 5 p.m.

Internet Sites

Navy and Marine Corps Internet Access

BRAC PMO Web Site (includes RAB meeting minutes):

Primary Navy web site: <http://www.navybracpmo.org>

Department of Defense – Environmental Cleanup Home Page Web Site:

<http://www.dtic.mil/envirodod/>

U.S. EPA:

www.epa.gov (this is the homepage)

www.epa.gov/superfund (site for Superfund)

www.epa.gov/ncea (site for National Center for Environmental Assessment)

www.epa.gov/federalregister (site for Federal Register Environmental Documents)

www.epa.gov/fedrgstr/EPA-IMPACT/2004/April/Day-27/i9203.htm (site for Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the Riverside fairy shrimp)

Cal/EPA:

www.calepa.ca.gov (this is the homepage)

www.dtsc.ca.gov (site for Department of Toxic Substances Control)

www.swrcb.ca.gov/ (site for Santa Ana Regional Water Quality Control Board)