

**Meeting Minutes  
Travis Air Force Base  
Environmental Management  
Building 246, Upstairs Conference Room  
Installation Restoration Program  
Remedial Program Managers Meeting**

**9 January 2002, 0930 hours**

Mr. Allen Brickeen, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 9 January 2002 at 0930 in Building 246, Upstairs Conference Room, Travis AFB, California. Attendees included:

- Allen Brickeen Travis AFB
- Glenn Anderson Travis AFB
- Dale Malsberger Travis AFB
- Tom Sreenivasan Travis AFB
- Wilford Day Travis AFB
- DeAnn Lehigh Travis AFB
- Lt. Clay Roberts AFIERA/Brooks AFB
- Roger Johnson Air Force Center for Environmental Excellence (AFCEE)
- Parker Atkins Informatics
- John Lucey U.S. Environmental Protection Agency (U.S. EPA)
- Elizabeth Allen TechLaw
- Sarah Raker California Regional Water Quality Control Board (RWQCB)
- Jose Salcedo California Department of Toxic Substances Control (DTSC)
- Wayne Williams CH2M-Hill
- Deena Stanley URS
- George Joyce URS
- Brian Garber GTI/IT

Handouts distributed throughout the meeting included:

- Attachment 1 Meeting Agenda
- Attachment 2 Master Meeting, Teleconference, and Document Schedule
- Attachment 3 SBBGWTP Monthly Data Sheet
- Attachment 4 CGWTP Monthly Data Sheet
- Attachment 5 NGWTP Monthly Data Sheet
- Attachment 6 CH2M Hill Field Activities, January 2002
- Attachment 7 URS Field Activities, January 2002

## 1. **RW013, Low-Level Radiological Waste Burial Site**

Mr. Glenn Anderson introduced Lt. Clay Roberts, who is with Air Force/ERA/Brooks AFB (AFIERA). Lt. Roberts is at Travis AFB to give a briefing on what his office is doing to resolve the remaining radiological issues at RW013 and to establish achievable residential and industrial cleanup values for the WABOU Soil Record of Decision (ROD).

Lt. Roberts explained that his organization is attempting to establish the cleanup goal of 15 millirem (mrem) per year. The U.S. Nuclear Regulatory Commission has a 25 mrem per year criteria and U.S. EPA's criterion is 15 mrem per year.

At RW013, the Air Force is focusing on Uranium 234 and 235, which will have the most stringent cleanup levels. Current levels have been modeled at 42 picocuries per gram, which is not uncommon at sites such as this.

A letter from AFIERA was sent to Mr. Anderson explaining the rationale for the derived numbers.

Mr. Anderson stated the Air Force is attempting to find the middle ground. There is a significant difference of opinions on what computer model to use, what input values should be used in the modeling, and how the cleanup values for radiological constituents are derived. Mr. Anderson stated that this issue will take time to resolve. Mr. Anderson sent an email to the agencies outlining the position of Travis AFB on this issue and the revised text for the WABOU Soil ROD.

Mr. Anderson stated that there is a very small window of opportunity to make the necessary changes to the WABOU Soil ROD. The technical experts were to meet on 4 January 2002 to agree on the cleanup levels for RW013. This meeting did not take place.

Lt. Roberts stated that Mr. Steve Dean of U.S. EPA was unable to attend the meeting or the rescheduled meeting on 7 January 2002. Lt. Roberts explained that the 15 mrem per year level is equivalent to  $3 \times 10^{-4}$  target risk. The U.S. EPA uses  $1 \times 10^{-6}$  in its modeling program, which results in a significant difference. When remediating a site, the attempt is to rid the site of contaminants and any residual isotopes. The problem is to determine a cleanup level with which everyone feels comfortable. The Air Force proposed a reasonable goal of  $1 \times 10^{-5}$ , which will result in 2 picocuries per gram for residential (70-year exposure) use and 8 picocuries per gram for industrial use.

Ms. Raker asked for the associated risk at the practical quantitation limit (PQL). Mr. Anderson stated that the PQL for Uranium-235 is 1 picocurie per gram, which equals  $5 \times 10^{-6}$ . Mr. Anderson stated that the value selected is roughly based on  $10^{-5}$ . The model does not take into account the depth at which residual contaminants are found, since the backfill could act as a 6- to 8-foot shield. These numbers were selected because they are within the risk range  $10^{-4}$  to  $10^{-6}$ , and yet there is a tremendous amount of conservativeness built into the model.

Lt. Roberts commented that a standard of 15 mrem per year has been established, but the concept of “as low as reasonably achievable” (ALARA) was also used. Consideration will be given to the value gained in attempting to achieve lower residual contaminant concentrations.

Mr. Anderson stated that changes will be necessary to the draft final WABOU Soil ROD based on the State’s applicable or relevant and appropriate requirements (ARARs). Once changes are made, an explanation will need to be given to the Pentagon as to why changes are being made to a draft final decision document.

Mr. Lucey asked if the level that the Air Force is proposing (2 picocuries per gram for residential use and 8 picocuries per gram for industrial use, both of which are equivalent to the  $10^{-5}$  risk) is quantifiable. Mr. Anderson stated yes, since the PQL is 1 picocurie per gram.

Mr. Lucey asked what the 6- to 8-foot depth is based upon. Mr. Anderson stated that it is based on the site characterization. Mr. Lucey asked what was the depth of the waste. Mr. Anderson stated that the waste is at a minimum depth of 6 feet. Mr. Lucey stated that he did not think that the proposed cleanup level is a problem,  $10^{-5}$  seems to be appropriate.

Lt. Roberts stated that there are not many places to send low-level radioactive waste; it is a highly political topic, and the disposal of radioactive material can be quite expensive. When RW013 is excavated, it will be to an approximate depth of 6 to 8 feet. In situ ground measurements will be taken to assess how much activity is left behind. This will support the decision to collect confirmation samples for site closure. Once the criterion is met, the site will be backfilled with soil.

Mr. Lucey stated that Mr. Dean will review Mr. Anderson’s email prior to meeting with Lt. Roberts.

Mr. Roger Johnson brought clarification by asking Lt. Roberts the following questions:

- Under the law, how much radiation can the general public receive? *100 millirems per year.*
- Under the current guidance, the Air Force is proposing what? *50 microrems per year.*
- What is the difference between what you are allowed to receive, a factor of what? *A factor of 1,000 of what you are allowed to receive.*

Mr. Johnson elaborated that five-year old children can receive 100 mrem per year. Lt. Roberts stated that the population receives approximately 357 mrem per year exposure from a variety of sources.

Mr. Anderson stated that any proposed text changes for the draft final WABOU Soil ROD must be received by 10 January 2002. Mr. Lucey stated that that would not be possible for him. Mr. Salcedo stated that he will brief his management on the 10<sup>-5</sup> cleanup levels tomorrow. Mr. Lucey will check with Mr. Dean today during the break to determine whether Mr. Dean had reviewed Mr. Anderson's email and had come to any conclusions.

**A. Previous Meeting Minutes**

Ms. Raker requested the following change on page 4 — WABOU ROD, Ms. Raker stated that the comments relate to management issues (Title 27 and Basin Plan are ARARs). The 5 December 2001 meeting minutes will be corrected and distributed as final.

**B. Four-Month Calendar of Upcoming Milestones and Meeting Dates**

The revised Travis AFB Master Meeting, Teleconference, and Document Schedule were distributed (see Attachment 2).

**Annual Meeting and Teleconference Schedule**

— Suppliers Meeting dates for May and July were corrected changed to 7 May 2002 and 16 July 2002, respectively.

**Master Meeting and Document Schedule**

- Page 1, West/Annexes/Basewide Operable Unit (WABOU) Soil ROD point of contact for CH2M Hill was changed to Mr. Loren Krook.
- Page 2, South Base Boundary Groundwater Treatment Plant (SBBGWTP) Operations and Maintenance (O&M) Manual Revision 3, schedule has been added, currently reading TBD (to be determined) since it is based on when the FT005 Expansion can be constructed.
- Page 2, Central Groundwater Treatment Plant (CGWTP) O&M Manual Revision schedule will be developed by the next RPM meeting.
- Page 3, LF007/ CAMU Soil Design Package schedule was revised to TBD for response to comments, draft final, and final due dates.

Mr. Brickeen stated that the funds for the LF007/CAMU Soil Design Package are exhausted, and work has been stopped.

- Page 3, LF007/CAMU Construction Quality Control Plan (CQCP) schedule was revised.
- Page 3, LF007 Area C Remedial Design schedule was revised to TBD for response to comments, draft final, and final due date. The response to

comments meeting was changed to 5 December 2001 to reflect the actual date.

- Page 4, SD042 Remedial Action (RA) CQCP pre-draft to the Air Force date has been changed to 11 January 2002.
- Page 4, Institutional Control Plan schedule will be established by the next RPM meeting.
- Page 5, Groundwater Sampling Analysis Program (GSAP) 2001 Annual Report schedule was revised based on the additional time requested by RWQCB. Ms. Raker requested that the schedule be extended to the end of January 2002. Mr. Salcedo stated that his chemist will review the report/not the hydrogeologist. Ms. Raker and Mr. Lucey will have hydrogeologists review the document.
- Page 8, SBBGWTP O&M Manual Rev 2, Long-Term Operation (LTO) Strategic Plan, and Remedial Design/Remedial Action (RD/RA) Strategic Plan were moved to the historical section.

## **2. OPERABLE UNIT UPDATE**

### **A. North/East/West/ Industrial Operable Unit**

#### **1. Landfill Cap Design**

Mr. Malsberger stated that the draft Landfill Cap Design has been under discussion for the last 13 months. Although agreement has been reached on the interceptor trench design, the evapotranspiration (ET) cap, and how to construct the cap, existing funding for the document has been used up and funds for the draft final and final are not available. Therefore, this document is on hold until funds are acquired. Hopefully this will be accomplished in time for the summer construction season.

Ms. Raker asked if the construction could begin before the document goes draft final. Mr. Malsberger stated that it depends upon the agencies. If the agencies agree to proceed, the agreement can be recorded in RPM meeting minutes.

Ms. Raker asked Mr. Lucey if he is comfortable in proceeding without the final document. Mr. Lucey stated that he is comfortable.

Ms. Raker commented that the draft final has changed so much from the original document and it would be important to see all the revisions in one document. Mr. Malsberger agreed and stated that doing the work from the draft final will be easier than on the draft.

Mr. Lucey stated that U.S. EPA will have comments on the draft final. Mr. Malsberger stated that the comments should address text and not design changes. Mr. Lucey stated that generally the comments will be text; however, he is not clear on the language about the cap, the approach that is being taken, and the demonstration project/pilot study.

Mr. Lucey also stated that he has not seen a coherent text description. Mr. Malsberger stated that the modeling runs will be given to U.S. EPA for the ET cap before the project is closed out due to funding.

## **2. LF007 C Groundwater Remedial Design**

Mr. Malsberger stated that Travis AFB has resolved the comments received from RWQCB. Mr. Malsberger requested letters from U.S. EPA and DTSC stating no comments will be submitted and/or the comments will be deferred to the RWQCB.

Mr. Malsberger stated that Travis AFB is in the process of working with U.S. Fish and Wildlife Services (USFWS) to resolve the listed species issues. Travis AFB has requested USFWS to do an informal or formal consultation to agree on the impact of installing the wells within the vernal pools.

## **3. NEWIOU ROD**

Mr. Malsberger proposed that Travis AFB develop a plan on various sections of the NEWIOU ROD to get consensus prior to completing the draft ROD. Mr. Malsberger, Ms. Lehigh, and Ms. Stanley will determine what items are necessary and have the draft schedule at the end of the process. The agencies agreed to the approach. The proposed plan of action will be presented at the next RPM meeting.

Mr. Salcedo proposed that Travis AFB have a U.S. EPA representative present with the contractor during the habitat survey in order to expedite concurrence.

Mr. Malsberger stated that in a future RPM meeting, there will be a presentation and/or tour on a few NEWIOU sites for familiarity.

Mr. Lucey proposed that the public should also be reintroduced to the site. Mr. Brickeen stated that this could be done through the newsletter and/or Restoration Advisory Board (RAB) meetings.

**B. West/Annexes/Basewide Operable Unit**

**1. Ecological Protection Technical Memorandum**

Mr. Anderson stated that comments on the technical memorandum had been received from DTSC and U.S. EPA. The Air Force had provided responses to the agency comments, and Mr. Salcedo is in the process of finalizing his review of the responses to DTSC comments. The technical memorandum will be finalized the same time that the WABOU Soil ROD is submitted as a draft final, and copies of the final version will then be provided to the agencies.

**2. RW013 Cleanup Levels**

Mr. Anderson asked Mr. Lucey if Mr. Steve Dean was able to review the soil design for RW013. Mr. Lucey is attempting to contact Mr. Dean. Mr. Anderson requested that Mr. Dean contact Lt. Roberts.

Mr. Anderson stated that he will submit WABOU Soil ROD text changes to CH2M HILL on 11 January 2002 with instructions to incorporate the changes and distribute the changeout pages to those who received the draft final copy of the ROD.

Mr. Lucey stated that the rationale for backing away from  $10^{-6}$  should be enhanced in a letter from the Air Force. It should state that the contaminated material is 6 feet below the surface, and there is no complete exposure pathway.

Mr. Anderson stated he could make reference to the email correspondence in the letter, explaining the site-specific conditions. If ROD text changes are going to be made, they need to be made now.

Mr. Lucey agreed to reference the letter, and Ms. Raker concurred. Mr. Lucey also commented that Mr. Dean does not have the final say and if he disagrees he can state that in writing in a response to Mr. Anderson's letter.

Ms. Lehigh asked if U.S. EPA's management reviewed this and what were their issues. Mr. Lucey stated that he has not brought this to his management's attention. He was waiting for Mr. Dean to review it and then bring up the discussion to his management. In concept, U.S. EPA's management has reviewed the document but they are not aware of the issue concerning the departure from  $10^{-6}$ .

Mr. Anderson stated that if these issues are not resolved by tomorrow, Travis AFB will move forward. Ms. Raker asked Mr. Lucey to let her know if his agency is going to sign the WABOU Soil ROD.

Ms. Raker said she would not have any comments on the RW013 design package. Mr. Salcedo said he had submitted the package to the Department of Health Services (DHS) for their review, but had not received comments from them yet.

### **3. Applicable or Relevant and Appropriate Requirements**

Mr. Anderson stated that he and Ms. Raker will talk later for clarification on which ARARs related to the CAMU need to be included in Section 6 of the WABOU Soil ROD. Once completed, a new Section 6 will be distributed to all parties. Ms. Raker stated that she will need DTSC to defer or concur with the ARARs. An email will be sent to the Water Board containing the final ARARs. Ms. Raker suggested that Mr. Lucey brief Ms. Suzette Leith, the U.S. EPA attorney who has been working on Travis AFB projects, on this issue.

## **3. CURRENT PROJECTS**

### **A. South Base Boundary Groundwater Treatment Plant**

Mr. Sreenivasan reported that the SBBGWTP performed at 99% uptime with approximately 5.2 million gallons of groundwater extracted and treated during the month of December 2001. The average flow was 119 gallons per minute (gpm). Approximately 6 pounds of volatile organic compounds (VOCs) were removed during December 2001. The total mass of VOCs removed since startup of the system is 163.8 pounds (see Attachment 3).

During December, the air stripper system was checked out for its readiness for the restart, and a startup plan was submitted to and approved by the RWQCB. The system was restarted 2 January 2002 and currently serves as the sole treatment process at the SBBGWTP for removing VOCs.

Change out of the carbon in the lead vessel is scheduled for 10 January 2002 so that fresh carbon will be available as a backup during times of air stripper maintenance.

A startup summary report will be prepared and submitted to the RWQCB by 9 January 2002, detailing the air stripper restart process and the results of initial sampling and monitoring.

### **FT005 Easement Agreement**

Mr. Sreenivasan stated that escrow was completed on 28 December 2001. Although, funds are not available to complete the construction, preliminary surveys will begin as soon as the weather clears. The FT005 off-base activities are planned to be completed by August 2002. Additional funds are being sought to complete the project.



## **B. Central Groundwater Treatment Plant**

Mr. Sreenivasan reported that the CGWTP performed at 80% uptime with approximately 3 million gallons of groundwater extracted and treated. The average flow for the CGWTP was 83.7 gpm for the month. Approximately 28 pounds of VOCs were treated during December 2001. The total mass of VOCs removed since startup of the system is 1,954 pounds (see Attachment 4).

Mr. Sreenivasan reported that on 5 December 2001, trichloroethene (TCE) of 1.2 ppb and cis 1,2-dichloroethene (DCE) of 0.42 parts per billion (ppb) was detected in the effluent. These levels are below the instantaneous maximum effluent limit but above the 30-day median maximum effluent limit. Additional samples were collected on 3 and 4 January 2002 with non-detect results.

Mr. George Joyce stated that the air compressor of the ultraviolet/oxidation (UV/Ox) system deteriorated and failed. It was more cost-effective to replace the entire unit than to do repairs. The compressor was replaced and the system was restarted.

Mr. Joyce stated that he and Mr. Johnson discussed operating the VOC removal methods of the Central Groundwater Treatment Plant under a new configuration. The UV/Ox system is set up to operate in series, but only one skid is currently being operated. AFCEE has asked URS to evaluate operating both UV/Ox skids in series to improve destruction removal efficiencies. In addition, AFCEE suggested placing the three 2,000-pound liquid granular activated carbon (LGAC) vessels in series as the primary VOC removal process units. URS is also evaluating new configurations for the two 20,000-pound and three 2,000-pound liquid LGAC vessels and generating cost impacts to arrive at an economically attractive and process-efficient alternative. This proposal will be discussed further at the next RPM meeting.

### **Irrigation System Operation**

Mr. Sreenivasan stated that the Wing Commander approved a basewide irrigation plan; however, it does not include Area 200. Environmental Management and Civil Engineering will discuss various beneficial use options for the treated groundwater.

## **C. North Groundwater Treatment Plant**

Mr. Sreenivasan reported that the North Groundwater Treatment Plant (NGWTP) performed at 70.5% uptime. Approximately 3.5 pounds of VOCs were removed during the month of December. Approximately 0.84 million gallons of water were extracted and treated. The average flow for the NGWTP was 27.5 gpm for the month of December. The total mass of VOCs removed since startup of the system is 144.4 pounds (see Attachment 5).

Piping to the duck pond is complete. Discharge of treated groundwater to the duck pond began on 19 December 2001. The NGWTP has shut down on several occasions due to high-high or low-low wet well level caused by plugging of filters or incorrect wet well level indication. The cause(s) are being investigated.

Persistent rain during December has raised the groundwater level in the dual-phase extraction wells, causing water to enter the SVE piping at a rate exceeding the capacity of the drain transfer pump. The SVE system has been shut down until the groundwater elevations subside.

**D. FT002 Berm Project**

Mr. Malsberger stated that an email was submitted in November 2001, which was when Travis AFB became aware of the base beautification project to construct a berm. Mr. Lucey had suggested a formal letter for documentation. This was done on 31 December 2001.

Mr. Malsberger asked the agencies for feedback. Ms. Raker gave approval, Mr. Lucey stated that he has not read the letter, and Mr. Salcedo had no problems with the letter, if the letter is similar to the email. The agencies will submit approval letters.

**E. LF008 O&M Manual Review**

Mr. Anderson stated that the Air Force has provided responses to the U.S. EPA comments on the draft LF008 O&M Manual.

**F. DP039 Treatability Study Report**

Mr. Anderson stated that U.S. EPA has concerns on the language used in the draft DP039 Treatability Study Report. Mr. Lucey will be submitting a response to the Air Force response. This will be discussed in the March 2002 RPM meeting.

**G. GSAP Progress**

Mr. Brickeen stated that the groundwater sampling is complete and samples are currently being analyzed.

**4. PROGRAM ISSUES UPDATE**

**A. RAB Update Letter**

Mr. Brickeen stated that he will email the RAB update letter to the agencies for review by 12 January 2002. This letter will cover the completion of the easement, ROD status, ARARs, and RW013 cleanup level issues.

**B. Base Passes**

Mr. Brickeen stated that passes will be issued today.

**C. DSMOA**

Mr. Salcedo stated that the DSMOA appendices were changed this morning to incorporate the changes agreed to and can be signed today.

**D. FY02 Funding**

Mr. Brickeen stated that signing of the defense budget was delayed and it is unknown when the funds will be released.

**E. Other**

Mr. Brickeen stated that the next RAB meeting will be meeting on 24 January 2002. The Community Relations Focus Group meeting will be coming up.

**F. Field Activity Reports**

Mr. Brickeen distributed the field activity reports from CH2M Hill and URS (see Attachments 6 and 7).

**ACTION ITEM LIST  
(Action Item Opened)**

<b>AGENDA</b>	<b>RESPONSIBLE</b>	<b>ACTION ITEM</b>	<b>DUE DATE</b>	<b>STATUS</b>
1.	RWQCB	Follow up on the letter from the Air Force in response to the notice of violation for the NGWTP.	Open	Pending
2.	DTSC	Submit “no comment” letters on the Treatment Plant Performance Monitoring Recommendations, WIOU NAAW, CAMU soil acceptance level technical memorandum, groundwater protection technical memorandum, and ST032 technical memorandum.	1/11/01	Pending. To be given next week.
3.	All	Review DP039 data after the GSAP Annual Report is submitted	12/05/01	Pending. (Due date was changed from 24 October 2001 to 13 March 2002.)