

**Travis Air Force Base
Environmental Restoration Program
Remedial Program Manager's
Meeting Minutes**

01 December 2010, 0930 Hours

Mr. Glenn Anderson, Travis Air Force Base (AFB), conducted the Remedial Program Manager's (RPM) meeting on 01 December at 0930 in the Main Conference Room, Building 570, Travis AFB, California. Attendees included:

- Glenn Anderson Travis AFB
- Lonnie Duke Travis AFB
- Merrie Schilter-Lowe Travis AFB
- Dezso Linbrunner United States Army Corp of Engineers (USACE),
Omaha District
- Alan Friedman California Regional Water Quality Control Board
(RWQCB)
- Jose Salcedo California Department of Toxic Substances Control
(DTSC)
- Nadia Hollan Burke United States Environmental Protection Agency
(USEPA)
- Rich Freitas United States Environmental Protection Agency
(USEPA)
- Mary Snow Techlaw, Inc
- Rachel Hess ITSI
- Craig Carlson Trihydro
- Mike Wray CH2M HILL
- Doug Berwick CH2M HILL

Handouts distributed at the meeting and presentations included:

- Attachment 1 Meeting Agenda
- Attachment 2 Master Meeting and Document Schedule
- Attachment 3 SBBGWTP Monthly Data Sheet (October 2010)
- Attachment 4 CGWTP Monthly Data Sheet (October 2010)
- Attachment 5 NGWTP Monthly Data Sheet (October 2010)
- Attachment 6 Presentation: SS015 Field Implementation Plan and SD036 Field
Implementation Plan (for EVO Injection)
- Attachment 7 Presentation: Program Update: Activities Completed, In Progress
and Upcoming
- Attachment 8 Presentation: Field Schedule Update

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 21 October 2010 RPM meeting minutes were approved and finalized as written.

B. Action Item Review.

Action items from October were reviewed.

Action item one still open. No change.

Action item two still open. No change.

Action item three still open. No change. Ms. Burke said that she had an opportunity to look at site closure reports from McClellan, and will forward to EPA's review team for their comment. Ms. Burke will also email McClellan's report to Travis AFB to review the formatting and style. Mr. Linbrunner asked if these reports are site specific. Ms. Burke answered yes.

Master Meeting and Document Schedule Review (see Attachment 2)

The Travis AFB Master Meeting and Document Schedule (MMDS) was discussed during this meeting (see Attachment 2).

Travis AFB Annual Meeting and Teleconference Schedule

— Mr. Duke asked if the RPM meetings on the 2011 calendar fit into everyone's schedule. Mr. Friedman said that he preferred consistency; having the meeting held on a particular Wednesday or on a Thursday of every month is best. Ms. Burke said she has conflicting meetings that prevents her from having the RPM meetings on a particular Wednesday or a Thursday of each month. Ms. Burke said that the dates that she and Mr. Smith selected that are currently on the MMDS calendar agrees with her schedule. Mr. Salcedo said leave the schedule as is and everyone else will work around it. Consensus was to leave the schedule as is for now and re-address at a later date if needed.

Travis AFB Master Document Schedule

The 08 December 2010 RPM meeting has been changed to 01 December 2010.

— Focused Feasibility Study (FFS): No change. Ms. Burke said that the January meeting would be a good meeting to present a review of the FFS, and asked if Travis was considering doing a presentation. Mr. Anderson said that yes there would be a presentation overview. Mr. Freitas expressed concern that the Air Force was dropping the FFS report on the regulatory agencies without giving them advanced notice. Mr. Duke said it's been on the schedule for two years, and all parties have had ample time to prepare

for it. Mr. Friedman asked Mr. Freitas when he would be ready for it. Mr. Freitas said we haven't really gone through all the sites. Ms. Burke asked for the presentation to go over everything as a refresher. The focus has been on one site at a time and this document encompasses everything. It would be good to do an in depth overview of all the sites and their status. Mr. Duke reminded EPA they will have two months to review the draft document.

- Proposed Plan (PP): Public Comment Period date has been changed to coincide with the RAB meeting. Mr. Salcedo suggested to change the Public Comment Period date to a week before the RAB meeting to give the public at least a week to review the document. Ms. Schilter-Lowe suggested that she send an article/press release in the newspapers advertising the PP for public comment.
- Groundwater Record of Decision (ROD): No change.
- Comprehensive Site Evaluation Phase II: No change. Travis received comments from EPA. Both state agencies, DTSC and the Water Board, have reviewed the document and have no comment. Mr. Linbrunner added that the Military Munitions Response Program (MMRP) review is managed by the Omaha MMRP primary design center as well as the Air Force MMRP office where MMRP documents get a thorough review. The Response to Comments Meeting for this document will be rescheduled to early next year.
- Potrero Hills Annex: (FFS, PP, and ROD): No change.
- ISCO/ERD Technical Memorandum: The Response to Comments meeting was changed to coincide with the January 2011 RPM meeting. The DTSC and the Water Board are still reviewing the document. EPA has an initial set of comments and additional comments from Office of Research and Development (ORD). The agencies will try and get comments to Travis within the next two weeks.
- Site SS015 Field Implementation Plan: No Change. The RTC date will be changed to coincide with the next RPM meeting held in January 2011.
- Sites SS014 and ST032 Tier 1 POCO Evaluation Report: The date for when the Pre-draft is scheduled to go out for Air Force review was changed. Ms. Burke asked if EPA normally receives a copy for their records. Mr. Anderson said the document is for the Water Board. Mr. Duke added that when the document goes final, a copy will go in the Administrative Record (AR), and that once added to the AR, a copy is available. Ms. Burke asked if Travis would cc her when the draft is emailed to the Water Board. Mr. Duke asked for clarification if Ms. Burke wanted a copy of the draft document or wanted to know when the draft was sent. Ms. Burke said a copy of the draft was not needed; she just wants to know when the draft document goes out. Mr. Duke said the dates are in the MMDS. Mr.

Freitas said EPA wants to know what's going on at Travis. Mr. Wray said the date for the Predraft needs to be revised to 14 January 2011, and the rest of the dates will be rescheduled accordingly.

- Site ST018 POCO Field Implementation Report: No change.
- Site SD036 RPO Field Implementation Plan: This new document addresses the injection of the vegetable oil. This project already has an approved work plan.
- 2010 GWTP RPO Annual Report: This new document was added to the master document schedule. This report is specific to treatment plants, energy used, carbon use, etc. Mr. Freitas asked how this addresses extraction wells, if one goes down, or if there is a power outage. He asked how these things would affect the plumes. Mr. Duke explained this report is for the Treatment Plants only; the GSAP report addresses the groundwater data. Mr. Freidman said to look at the GWTP report for what happens above the ground and the GSAP report for what happens below the ground. Mr. Freitas said that the GSAP comes out only once a year; what if something catastrophic happens, like the treatment plant going down. Mr. Duke explained that if one of the treatment plants go down, the base repairs it. In ten years plant shutdowns have never presented a long-term impediment to groundwater cleanup. Additionally, treatment plant reports that discuss interruptions to the extraction and treatment systems are presented/provided monthly.
- Quarterly Newsletter (January 2011): Date changed to reflect the new issue date.
- 2009/2010 GSAP: Dates have changed to reflect the submission of the draft to agencies on 07 December 2010, and the date for the submission of agency comments has changed accordingly.

2. CURRENT PROJECTS

Treatment Plant Operation and Maintenance Update

Mr. Duke reported on the treatment plant status.

South Base Boundary Groundwater Treatment Plant (see Attachment 3)

The South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 99.1% uptime, and 5.1 million gallons of groundwater were extracted and treated during the month of October 2010. All of the treated water was discharged to Union Creek. The average flow rate for the SBBGWTP was 99.0 gallons per minute (gpm), and electrical power usage was 13,020 kWh. Approximately 17,837 pounds of CO₂ were created (based on DOE calculation); approximately 1.52 pounds of volatile

organic compounds (VOCs) were removed in October. The total mass of VOCs removed since the startup of the system is 389 pounds.

Optimization Activities: Took plant off line for a couple of days to change the groundwater treatment process from air stripping to activated carbon treatment. Travis is trying to figure out why a lot of electricity is still apparently being used (according to the meter).

Central Groundwater Treatment Plant (see Attachment 4)

The Central Groundwater Treatment Plant (CGWTP) performed at 93.2% uptime with approximately 1.96 million gallons of groundwater extracted and treated during the month of October 2010. All treated water was diverted to the storm drain. The average flow rate for the CGWTP was 40.6 gpm, and electrical power usage was 71 kWh for all equipment connected to the Central plant; approximately 97 pounds of CO₂ were created. Approximately 5.49 pounds of VOCs were removed from groundwater in October. The total mass of VOCs removed since the startup of the system is 11,198 pounds.

The West Treatment and Transfer Plant (WTTP) remains turned off for the ongoing rebound study.

Mr. Salcedo asked if this is the first time MTBE has been found. Mr. Duke said that it was found in the previous month's sample report. Travis is not sure where it is coming from; it could possibly be as simple as an airmen who spilled a couple of gallons of gas and did not report it. Travis will continue to investigate.

North Groundwater Treatment Plant (see Attachment 5)

The North Groundwater Treatment Plant (NGWTP) performed at 100% uptime with approximately 7,400 gallons of groundwater extracted and treated during the month of October 2010. The average flow rate of the NGWTP was 0.14 gpm, and electrical power use was 282 kWh for all the equipment connected to the North plant; approximately 386 pounds of CO₂ were created. The amount of VOCs removed was very low and consequently difficult to measure. The total mass of VOCs removed since the startup of the system is 656 pounds.

Optimization Activities: None to report for the month of October. Mr. Duke said that as soon as the vernal pools start collecting water, the extraction wells and treatment plant will have to be shut down.

ST018 Construction Update

Mr. Duke gave an update on the ST018 construction. This is an MTBE/POCO cleanup site.

Mr. Duke started by saying the power had to be shut off at the service station so they could tie into the transformer. Mr. Berwick brought in some wire as show-and-tell: there was no cut-off switch, no disconnect, it was all hard wired. This demonstrates just some of the issues encountered during the project.

Mr. Berwick briefly explained the horizontal drilling process; the drillers would pothole around all the of marked utilities, which were quite a few, then start the directional drilling and inserting of pipe. At times they would directional drill 400 ft. from pothole to pothole to tie in the pipe. Important to note: during the trenching no underground lines were hit. Mr. Anderson added this was a very successful project. The work was non-invasive. There are a lot of new buildings with new sod and concrete, and the concrete or grass was not disturbed by using directional drilling.

The site ST018 system consists of three solar powered extraction wells that pump contaminated water through three carbon vessels, filled with virgin coconut carbon. The construction is scheduled to be completed on 02 December 2010. Travis is waiting for the Notice of Intent (NOI) permit to be signed.

3. Presentations

SS015 Field Implementation Plan and SD036 Field Implementation Plan (for EVO Injection) (see Attachment 6)

Mr. Berwick gave the presentations on SS015 and SD036.

The key points made for site SS015 presentation included:

- Installed three injection wells near the existing monitoring well MW216x15. Shown on attached map.
- Installed four new monitoring wells to close data gaps for the characterization. The monitoring wells are 4 inch wells to serve as Emulsified Vegetable Oil (EVO) injection wells, if needed.
- The EVO/Water mixture injected will be 6,260 gallons, or 2,087 gallons per well (3 injection wells).
- The chase water to be injected will be 11,894 gallons or 3,965 gallons per injection well.

Mr. Berwick provided a map of site SS015 that illustrated where the new injection wells and monitoring wells are installed in relation to the high TCE concentration. Included in the presentation are cross section diagrams.

Ms. Burke asked if these are shallow wells. Mr. Berwick said yes, they are about 15 ft. deep. Mr. Wray added that bedrock daylights behind building 549. Mr. Freitas asked if the EVO will be injected into bedrock. Mr. Berwick said yes, but it is weathered/sandstone bedrock. Mr. Wray said

we are injecting where the highest concentration is. Mr. Freitas asked if this is just a treatment study. Mr. Wray confirmed it is a treatability study. Mr. Freitas asked if Vinyl Chloride was found above bedrock? Mr. Wray answered yes. He added that the groundwater flow in this area is to the northeast, which is a local anomaly; it flows with the contour of the bedrock. That only happens at a couple of places on base, as indicated in the GSAP reports.

Ms. Burke wanted clarification concerning the agency review of plans that are already implemented. Mr. Duke said these are plans that are based on the discussions that have been agreed upon in the RPM meetings, this is part of the TRIAD-style approach that the base has been using to make decisions, and this is why these meetings are so important. Ms. Burke asked if the EPA had comments or changes to the treatment process, would it be too late to make changes. Mr. Duke replied that the base would take EPA's suggestions into consideration. Ms. Burke said in conclusion that these meetings are more critical to Travis. Mr. Duke added that they have been useful for obtaining agency feedback for years. Ms. Burke said she is new to the process and is learning.

Mr. Freitas said EPA is concerned about containment. He stated that the base has to have a purpose: what is being targeted, how deep the contaminants are found (total depth), the treatment zone, and concentration levels. He asked if that information will be in the FFS. Mr. Anderson replied the FFS looks at the strengths and limitations that technology offers and applies it to site specific conditions. The detailed information EPA wants is found in the Field Implementation Plan.

Mr. Linbrunner said that is the beauty of the new concept of the Performance Based Contract (PBC). The contractors are not going to continue to investigate sites for the next 15 years. They have to perform because they only receive a certain amount of money to complete the work. It is not like the way that RI & FS work was done 15 to 20 years ago; this is a new concept. The contractors received a statement of objectives that they have to address. It is based on what has previously happened and what Travis and the regulators have decided 4 or 5 years ago. This provides the direction that Travis needs to follow.

The key points made on site SD036 presentation included.

- Installed eight injection wells in the "hot spot". No additional monitoring wells are needed.
- EVO has been delivered and is stored at Site SD036.
- For the four injection wells screened in the higher concentration, the EVO/Water mixture to be injected is 7,860 gallons or 1,965 gallons per well (of the area screened).
- The chase water to be injected is 18,324 gallons or 4,581 gallons per well

- (of the area screened).
- For the four injection wells screened in the lower concentration, the EVO/Water mixture to be injected is 15,720 gallons or 3,930 gallons per well (of the area screened).
 - The chase water to be injected is 36,940 gallons or 9,235 gallons per well (of the area screened).

Mr. Berwick provided a map of Site SD036 that illustrated where the new injection wells were installed in relation to the high TCE concentration area. Cross section diagrams were included in the presentation.

Program Update: Activities Completed, In Progress and Upcoming (see Attachment 7)

Mr. Wray reported on the status of field work and documents which are completed, in progress, and upcoming. See Attachment 7 for details.

Field Schedule (see Attachment 8)

Mr. Wray reported on the 2010 Field Schedule. See attachment 8 for details.

Mr. Freitas asked what would happen in the event the treatability plans do not work. Mr. Wray said that there are contingency plans for all of the sites in the FFS.

4. New Action Item Review

There are no new action items.

5. PROGRAM/ISSUES/UPDATE

None.

General Discussion

Mr. Freitas and Ms. Burke said they wanted to see in the next RPM meeting a presentation that encompasses all sites and treatability studies. Mr. Anderson suggested a tour of the base to view the sites that are being presented. Ms. Burke liked the idea and thought it would help. Mr. Freitas said he would rather see a presentation. Mr. Anderson reminded Mr. Freitas that we just said we were going to provide a presentation in the next RPM meeting.

7. Action Items

Item #	Responsible	Action Item Description	Due Date	Status
1.	Travis AFB	Petition to have the Lysimeter removed.	TBD	Open
2.	Travis AFB	Research beneficial reuse of treated water and give update.	TBD	Open
3.	EPA	Review past site closure completion reports to determine if future site closure reports are necessary.	TBD	Open