

**Travis Air Force Base
Environmental Management
Environmental Management, Building 570, Travis AFB, California
Environmental Restoration Program
Remedial Program Managers Meeting
Meeting Minutes**

9 February 2005, 0930 Hours

Mr. Mark Smith, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 9 February 2005 at 0930 in the Base Civil Engineering Conference Room, Building 570, Travis AFB, California. Attendees included:

- Mark Smith Travis AFB
- Glenn Anderson Travis AFB
- Dale Malsberger Travis AFB
- Tom Sreenivasan Travis AFB
- Wilford Day Travis AFB
- Gregory Parrott 60 AMW/JA
- John Lucey U.S. Environment Protection Agency (U.S. EPA)
- Elizabeth Allen TechLaw
- Alan Friedman Water Board
- Jose Salcedo Department of Toxic Substances Control (DTSC)
- Mike Wray CH2M Hill
- Amir Matin URS
- Eric Rixen Shaw Engineering and Infrastructure (Shaw E&I)
- Amber Brenzikofer Parsons Engineering Science (Parsons)

Handouts distributed throughout the meeting included:

- Attachment 1 Meeting Agenda
- Attachment 2 Master Meeting, Teleconference, and Document Schedules
- Attachment 3 Phytoremediation Demonstration Building 755 Sampling Results, TCE and TCE Metabolite Concentrations in Plant Tissue, TCE in Concentrations in Tree R3T4, Table 1 – Phytovolatilization Results
- Attachment 4 SBBGWTP Monthly Data Sheet (January 2005)
- Attachment 5 CGWTP Monthly Data Sheet (January 2005)
- Attachment 6 NGWTP Monthly Data Sheet (January 2005)
- Attachment 7 URS Field Activities, Travis AFB (January 2005)

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The meeting minutes from the January 2005 RPM meeting were approved and finalized.

B. Master Meeting and Document Schedule

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

Travis AFB Master Document Schedule

- Page 1, FT004 Groundwater Interim Remedial Action Remedial Action Report response to comments meeting, response to comments due, and draft final due dates were changed to not applicable (NA). This document will go final on 28 February 2005.
- Page 1, LF007 Groundwater Interim Remedial Action Summary Report response to comments meeting, response to comments due, and draft final due dates were changed to NA. This document went final on 18 January 2005.
- Page 3, Quarterly Newsletter (for 28 April 2005 RAB) schedule was updated.

2. OPERABLE UNIT UPDATE

A. North, East, West, Industrial Operable Unit Plan of Action and Milestones

1. Revised Draft Ecological Technical Memorandum

Mr. Malsberger stated comments were received from the Water Board and DTSC. U.S. EPA has concurred with DTSC's comments from Mr. Mike Anderson. A response to comments meeting has been scheduled for 23 February 2005 at 9:30 a.m. (This meeting will include the risk assessors and RPMs with the exception of Mr. John Lucey who will not be available.) It was agreed that the RPM and suppliers teleconferences scheduled for 23 and 24 February 2005 will be cancelled.

2. Draft Record of Decision

Mr. Malsberger stated that the Air Staff and AMC have not given their approval yet to Travis AFB's response to Air Staff and Air Mobility Command (AMC comments on the working copy of the ROD).

Mr. Gregory Parrott is at a symposium and will meet with Air Staff and/or AMC personnel to address the issues. The problem appears to be that Air Staff is now reviewing all RODs, which has resulted in a backlog.

Mr. Smith stated that he will revise the Federal Facilities Agreement (FFA) if the ROD is not submitted to the agencies by 3 March 2005.

Mr. Lucey stated that he has briefed his management on the ROD and the delay. There are a number of issues that Region 9 is having with the Air Force concerning disputes and RODs, and unfortunately it is

getting worse as time goes on. One issue is the “stacking up” of RODs at Air Staff. It is now U.S. EPA’s position to no longer informally revise the schedule for FFA documents (i.e., RODs). A letter will be submitted to Travis AFB stating, in accordance with the FFA, if 10 February 2005 deadline cannot be met, the U.S. EPA would like to have a formal extension. The next step would be a letter from the Air Force requesting this extension. U.S. EPA will then approve or deny the requested extension.

Mr. Smith asked Mr. Lucey if he briefed his branch chief that the RPMs have, up until now, agreed to informal extensions of the draft ROD delivery date as spelled out in the FFA. Mr. Lucey stated, “yes”.

Mr. Smith stated that he would most likely request a six month extension in order to not have to update the FFA more than once for this issue. Mr. Smith will check with Mr. Parrott for an update.

Mr. Malsberger asked if it would be easier to change the FFA date. Mr. Lucey stated not at this point.

Mr. Anderson asked if there is enough justification to submit a letter requesting an extension along with an explanation of the previous extension (i.e., the additional work required to complete the Ecological Technical Memorandum).

Mr. Lucey stated that although he agrees with Mr. Anderson’s proposal; however, the reality of the situation is that it really is the Air Force causing the delay. The reason Air Staff is not signing is because there is no standardized language on the state land use covenant for California, cost reimbursement issue, land use control implementation, indoor air pathways, etc. It is Mr. Lucey’s opinion that this will not be resolved quickly.

Mr. Malsberger stated that we should focus on issuing the draft ROD. The Air Force should state their positions, document them in the ROD, and then, if we have to, go to dispute. This will allow implementation of all the non-disputed items. Mr. Lucey stated that at this time, it is out of the RPMs’ hands.

3. CURRENT PROJECTS

A. Phytoremediation

Mr. Anderson stated that last September, a team from Utah State University (USU) was at Travis AFB to perform transpiration tests. The purpose of the transpiration test was to determine if the Eucalyptus trees at DP039 are releasing solvents into the atmosphere and if so, is there is a way to quantify the release. If the trees were not releasing solvents into the atmosphere, then the only way for the trees to successfully stabilize the plume or remove the solvents from the subsurface would be to have the solvents be incorporated in

the cellular structure of the trees. The test results were important to the success of this innovative technology demonstration.

Ms. Amber Brenzikofer presented the results of the transpiration tests study. A handout was distributed that illustrates the results (see Attachment 3). Ms. Brenzikofer stated that the ambient air at the time of the sample collection was too warm, causing the trees to conserve water. The analysis indicated that trichloroethene (TCE) is volatilizing from the leaves; however, the TCE concentrations were artificially high because the trees were conserving water. (This is considered a positive result.)

Parsons is now in the process of determining a means for quantification to determine how much TCE is being released.

Tissue sampling was performed to determine how much TCE was in the leaves, stems, and roots. Figure 1 shows the tissue sample locations; Figure 2 shows the tissue concentrations that were found in the trees for the past three years. Tissue sampling started in 2002 for TCE and TCE metabolite products.

The trees appear to be volatilizing the TCE rather than metabolizing it. The 2004 results showed good hits in the roots; however, leaves were low in TCE. Figure 3 indicated that the concentrations would not be more than what is in groundwater. In conclusion, positive results were achieved.

Mr. Lucey asked why TCE was not found in the leaves. Ms. Brenzikofer stated that USU said that in all studies concentrations were not found in the leaves because it volatilizes quickly. The highest concentrations are found in the stem and core of the trunks.

Mr. Friedman asked if the expectation is that the tree would be able to effectively volatilize and transpire VOC throughout its active life? Ms. Brenzikofer stated yes. In addition, most of the hybrid poplar species will metabolize 96% of the TCE and release 4% out of the leaves. There has not been an extensive study on Eucalyptus trees.

Mr. Anderson stated that Parsons is using an AFCEE contract for this study. Parsons will develop a report that will provide all the information accumulated over a seven-year period. A draft will be reviewed by the Air Force in March 2005. Mr. Anderson stated that the Air Force will submit a draft final report for the agencies to review.

Mr. Anderson stated that there are other unanswered questions such as do the trees transpire at night as much as they do during the day, what would be the test results if the conditions are optimal, how much is being released daily, week, monthly, etc. This is important because there is need to know if there is enough contaminant mass being removed. In addition, this is a treatment system that continues to improve itself. Mr. Anderson stated that this study is worth a continual look.

Mr. Anderson also stated that if positive results continue, then there will be a need to determine where additional trees should be placed to ensure that the entire DP039 solvent plume is stabilized.

Ms. Allen asked how it is measured to determine if the phytoremediation is effective, because measurable goals will be necessary in order to incorporate the information into the record of decision.

Mr. Smith asked the agencies to provide input on what additional data they may like to see that has not been included in this report.

Mr. Matin commented that it would be important to do a capture zone analysis in this area. Mr. Anderson stated that Parson did add sensors and have collected data over the last seven years.

Mr. Lucey asked if air samples were collected around the leaves. Ms. Brenzikofer explained that when sample collection tubes were placed over the branches, natural air is run through the tubes to mimic natural winds. The moisture is then captured and analyzed to measure TCE in the ambient air.

Ms. Allen asked if TCE is actually being released in a dissolved phase. Ms. Brenzikofer stated that according to USU, the TCE will volatilize whether there is moisture or not. Additionally, it does not initially have to come out of the leaves; it can be released through the stem and bark.

Mr. Lucey asked would the roots take it out of the soil gas phase. Ms. Brenzikofer stated that it is unknown if the concentrations are coming from the soil gas phase or the soil vapor around the water table.

Mr. Lucey asked if any soil gas samples were taken. Ms. Brenzikofer stated no.

B. Final LF007C Groundwater Interim Remedial Action Summary Report

Mr. Malsberger stated that there were not comments on the Draft LF007C Groundwater Interim Remedial Action Summary Report. The Final LF007C Groundwater Interim Remedial Action Summary Report was issued on 13 January 2005.

C. CAMU Inspection and Monitoring Quarterly Report

Mr. Malsberger stated that the Air Force is working on the corrective action management unit (CAMU) Inspection and Monitoring Quarterly Report internally. This report should be submitted to the agencies next week as an email attachment.

D. South Base Boundary Groundwater Treatment Plant

Mr. Sreenivasan reported that the SBBGWTP performed at 99.8% uptime with approximately 5.8 million gallons of groundwater extracted and treated

during the month of January 2005. The average flow rate for the SBBGWTP was 130.5 gallons per minute (gpm). Approximately 2.0 pounds of VOCs were removed during January 2004. The total mass of VOCs removed since startup of the system is approximately 269 pounds (see Attachment 4).

The SBBGWTP experienced one shutdown during the month of January 2005 due to base power outage.

No construction water was processed through SBBGWTP during January 2005.

No optimization activities were planned or performed at the SBBGWTP during January 2005.

E. Central Groundwater Treatment Plant

Mr. Sreenivasan reported that the CGWTP performed at 99.5% uptime with approximately 3.7 million gallons of groundwater extracted and treated during the month of January 2005. The average flow rate for the CGWTP was 82.4 gpm. Approximately 82 pounds of VOCs (of which 62 pounds were from vapor) were removed during January 2005. The total mass of VOCs removed since startup of the system is 7,525 pounds (see Attachment 5).

The thermal oxidation system continued to treat soil vapor from the 2-phase well as part of the SS016 focused vapor extraction activities. Quarterly vapor samples collected this month indicated an increase in TCE concentrations from 29 parts per million by volume (ppmv) in September to 54 ppmv in December. Recent concentrations continue to indicate TCE in the vicinity of the 2-phase well. Therefore, focused extractions will continue at this well and samples will be collected in March 2005 as the quarterly sample.

The West Treatment and Transfer Plant (WTTP) vacuum blowers remained off line during the rebound study. Rebound samples will be collected in March 2005 (semi-annual frequency).

All treated water from the CGWTP is being diverted to the storm drain.

No optimization activities were planned or performed at CGWTP during January.

F. North Groundwater Treatment Plant

Mr. Sreenivasan reported that the North Groundwater Treatment Plant (NGWTP) performed at 80.1% uptime with approximately one million gallons of groundwater extracted and treated during the month of January 2005. The average flow for the NGWTP was 27.7 gpm. Approximately 1.3 pounds of VOC were removed during January 2005 of which three pounds were removed from groundwater. The total mass of VOCs removed since startup of the system is 5,384 pounds (see Attachment 6).

The NGWTP experienced several shutdowns primarily due to power outage that triggered wet well level transmitter problems. A few calibrations of the level transmitter with remote starting did not help to alleviate the problem. Finally the level transmitter was replaced on 10 January 2005. Since then, the plant is operating normal.

The soil vapor extraction system was taken off line on 8 December 2004 due to high water levels rising above the well screens. The system will remain off line until late spring of 2005.

All treated groundwater from the plant was sent to the duck pond for beneficial use.

G. Draft SD042 Closeout Report

Mr. Anderson asked Mr. Lucey if he had the opportunity to review the draft SD042 Closeout Report. Mr. Lucey stated that he did review and would discuss this document further with Mr. Anderson after today's meeting.

4. PROGRAM ISSUES UPDATE

- Mr. Smith stated that the performance-based contracting (PBC) is coming to Travis AFB. Travis AFB is pre-positioned to support the PBC initiative, so there should not be any interruption in groundwater treatment and sampling. Performance-based contracting will take place this summer.

Mr. Lucey stated that in the past an initial meeting with prospective contractors was to occur. Mr. Lucey asked if this was still the plan. Mr. Smith stated no. He further clarified that the previous meeting that Mr. Lucey is referring to, was held to come up with a statement of objectives for a performance-based effort. There will be little initial impact on Travis AFB, if any. A general statement of work, similar to Travis AFB's current statement of work will be used by a new contractor. The Air Force should only expect a savings in that one contractor will be performing similar work at many different installations. Travis AFB will remain involved in the groundwater treatment and sampling programs and expects that sometime in the future an objective will be proposed. At that time, Travis AFB will meet to discuss any new statement of objectives. Mr. Smith stated that he intends to keep everyone informed.

- Response to the Land Use Control Letter was made available to the agencies.

5. Field Activity Reports

Mr. Smith distributed the field activity reports from URS (see Attachment 7).