



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 95TH AIR BASE WING (AFMC)  
EDWARDS AIR FORCE BASE CALIFORNIA

May 20, 2010

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 95 ABW/CEVR

SUBJECT: Minutes of the Environmental Restoration Program Restoration Advisory Board  
(RAB) Meeting, 18 February 2010

1. Time: 1730
2. Place: California City, California
3. Chairman: Mr. Peter Zorba, Public Co-chair
4. The following RAB members were present:

<u>Name</u>	<u>Position</u>
Mr. Ai Duong	Edwards Air Force Base (AFB) Remedial Project Manager (RPM)
Mr. Joseph Healy, Jr.	United States Environmental Protection Agency (U.S. EPA) RPM
Mr. Milton McKay	Air Force Research Laboratory (AFRL) Public Representative
Dr. David Newman	Rosamond Public Representative
Mr. Tim Post	California Environmental Protection Agency (Cal/EPA) Regional Water Quality Control Board (RWQCB) Lahontan Region RPM
Mr. Richard Salazar	Edwards AFB Main Base Test Wing Public Representative
Mr. Robert Smith	California City Public Representative
Mr. Victor Yaw	Mojave Public Representative
Mr. Peter Zorba	Lancaster Public Representative

5. The following members were absent:

<u>Name</u>	<u>Position</u>
Col Jose Torres	Air Force Co-chair
Mr. Kevin Depies	Cal/EPA Department of Toxic Substances Control (DTSC) RPM
Ms. Julie English	Boron Public Representative
Mr. Edward Sileo	Lancaster Public Representative (Alternate)
Dr. Leslie Uhazy	Rosamond Public Representative (Alternate)
Ms. Brenda Weems-Hunter	Edwards AFB South Base Public Representative
Vacant	Edwards AFB Base Housing Public Representative

Vacant	Edwards AFB Main Base Air Base Wing Public Representative
Vacant	Edwards AFB North Base Public Representative
Vacant	National Aeronautics and Space Administration (NASA) Public Representative
Vacant	North Edwards Public Representative

6. The following advisors were present:

<u>Name</u>	<u>Organization</u>
Ms. Patrice Hallman	95 ABW/CEVR
Mr. Gary Hatch	95 ABW/PAE
Mr. Tom Merendini	95 ABW/CEVR
Mr. Bruce Oshita	95 ABW/CEVR
Mr. Paul Schiff	95 ABW/CEVR
Mr. Warren Seidel	AFFTC/JA

7. Others present were as follows:

<u>Name</u>	<u>Organization</u>
Mr. Ranney Adams	AFRL Environmental Manager
Mr. Todd Battey	AECOM Technical Services, Inc. (AECOM)
Mr. Joe Dunwoody	95 ABW/CEVR
Mr. Scott Edwards	Public
Ms. Vanessa Green	JT3/CH2M HILL (Recorder)
Mr. William Hall	Air Force Center for Engineering and the Environment (AFCEE)
Mr. Robert Kohlhardt	AECOM
Ms. Patti Kumazawa	JT3/CH2M HILL
Mr. Dave Leeson	AFCEE
Ms. Wendelyn Leon	JT3/CH2M HILL (Recorder)
Ms. Stephanie Pacheco	TetraTech, Inc.
Ms. Leilani Richardson	JT3/CH2M HILL
Mr. Paul Rogers	JT3/CH2M HILL
Mr. Ray Sugiura	AECOM
Dr. Stephen Watts	95 ABW/CEVR

8. Mr. Zorba read the *Statement of Purpose and Conduct* and presented the minutes from the 19 November 2009 RAB meeting for acceptance. The minutes were accepted as presented.

9. RAB Training Session–*Remedial Process Optimization (RPO)* (attachment 1).

a. Mr. Oshita led a training session explaining RPO at Edwards AFB.

b. Mr. Post asked how often the AFCEE ERPO team members inspected the sites at Edwards AFB. Mr. Oshita responded that AFCEE first visited Edwards AFB in February 2009. In February 2010, Mr. Duong visited AFCEE Headquarters and provided an update in terms of how the base was doing with implementing the RPO recommendations.

10. Presentation—*Perchlorate at Edwards AFB—Current Progress: Site 285 and AFRL* (attachment 2). Mr. Oshita briefed on the current status of the Site 285 Groundwater Extraction Treatment System and noted that the system has successfully removed 151 pounds of perchlorate from March 2003–December 2009. Ms. Hallman briefed that an evaporation tank was removed from Site 36 at AFRL. Approximately 40 cubic yards of perchlorate- contaminated soil is scheduled to be removed this year based on a 2008 Record of Decision (ROD).

a. Mr. Salazar asked what areas are at risk of being contaminated if the plume migrates. Ms. Hallman replied that the plume at South AFRL, which is the only area that has a ROD, will stay on the base and travel toward the south boundary of the base over the course of a thousand years. She added that the arroyos area would flow more toward the north over the course of 100-plus years.

b. Mr. Salazar asked if there were any aquifers that would ever draw on the AFRL water. Ms. Hallman replied that the migration is part of the long-term solution at the South AFRL site. She also noted that over the course of time the contaminants will eventually move from the bedrock into the sand, which will easily be captured and treated. Ms. Hallman added that the Air Force is continuing to find ways to prevent the contaminants from reaching the aquifers.

c. Mr. Zorba asked if the Antelope Valley-East Kern Water Agency (AVEK) supplies drinking water to the community north of the base. Ms. Hallman noted that Mr. Zorba's assumption was correct and that AVEK will deliver more water in the future. Mr. Zorba then asked if the projected reduction in state water supplies and the increased pumping will draw the plume migration off base. Ms. Hallman replied that the concern is being discussed and evaluated. Mr. Battey added that the groundwater in North Edwards and other outlying areas has limited pumping because of the high arsenic levels in the water. Mr. Zorba and Mr. Battey discussed possible arsenic treatments and site model assumptions.

d. Mr. Salazar asked if there will be assistance from the Air Force to monitor the sites near the communities that may be affected. Ms. Hallman replied that if or when the water migrates into the community wells, the Air Force will provide assistance; but the plan is to prevent off-base migration. Mr. Duong added that the models for the sites are continuously refined. Currently the data states that the plume will not reach the base boundary for 125 years. He also noted that as soon as new data come out, the RAB will be updated.

11. RAB Vacancy Update—Mr. Hatch reported that there are five RAB vacancies: NASA, North Base, North Edwards, Housing, and Main Base Air Base Wing. All vacancies are to be re-advertised. Mr. Salazar and Mr. Zorba suggested that the ad for the RAB positions could be redesigned and also suggested Edwards try to use public service announcements on the local radio stations.

12. Reports from Public Representatives.

a. Mr. McKay, AFRL, reported that the *Report to Stakeholders (RTS)* had been distributed to the community and he had not received any comments from his constituents.

b. Dr. Newman, Rosamond, reported distributing the *RTS* to the community and students at Antelope Valley College and he had not received any comments from his constituents.

c. Mr. Salazar, Main Base Test Wing, reported that the *RTS* had been distributed to the community. He also noted that he spoke to technicians at building 1807 about the recent whey injections at Operable Unit (OU) 1. Mr. Salazar has not received any comments or concerns from his constituents.

d. Mr. Smith, California City, reported that his constituents were more partial to the January 2010 *RTS* edition because Mr. Smith's profile was a featured article. He also reported that he had not received any comments from his constituents.

e. Mr. Yaw, Mojave, reported that the *RTS* had been distributed to the community and he had received no comments from his constituents.

f. Mr. Zorba, Lancaster, reported that he distributed the *RTS* to his community and he has been an advocate for Edwards AFB at regional meetings with local, county, and state officials.

### 13. Reports from RPMs.

a. Mr. Healy, U.S. EPA Region 9 RPM, reported distributing the *RTS* to guests at the San Francisco EPA office. He also thanked the Air Force for giving his EPA section chief and groundwater modelers a tour of Edwards. Mr. Healy noted that the tour made the modelers more aware of the physical environment and the challenges that are dealt with on Edwards Air Force Base.

b. Mr. Post, RWQCB, had no comments.

c. Mr. Duong called for reports from OU Program Managers (attachment 3).

(1) Mr. Schiff briefed OU1 and the Military Munitions Response Program (MMRP).

(a) He noted that the OU1 Proposed Plan has been extended to incorporate revised groundwater transport modeling and resolution of comments from the U.S. EPA National Remedy Review Board (NRRB). A public comment period on the proposed plan is expected to be held in summer 2010. Mr. Schiff noted two wells received injections in January as the first part of the Site 16 *In Situ* Bioremediation Interim Response Action Study Work Plan. He also mentioned that the integration of Site 16 vapor-extraction wells into the Site 18 dual-extraction system is complete and operational. He said that the petroleum-only draft Site 20 *In Situ* Chemical Oxidation Remedial Action Report Addendum was issued in January 2010.

(b) Mr. Schiff noted that the MMRP Comprehensive Site Evaluation (CSE), Phase II Final Report is projected to be submitted to the regulators in March 2010. Mr. Schiff noted that the U.S. Army Corps of Engineers are currently pursuing right of entry for privately owned parcels included in Surface Clearance and Expanded CSE II efforts. Mr. Schiff also mentioned that the remedial investigation phase for MMRP sites is currently planned for Fiscal Year 2011.

(2) Mr. Schiff briefed for Ms. Hobbs on OU2, OU7 Chemical Warfare Materiel, and OU7 Site 3. He noted that the draft final Site 76 and Site 86 Remedial Action Work Plans for OU2

are due to regulatory agencies for review in April 2010. Mr. Schiff noted that the draft OU2 Sites 81 and 102 Surface Skeet Target Debris and Lead Shot Removal Work Plan was submitted to regulatory agencies for review. He also mentioned that the OU7 Site 3 Proposed Plan public comment period will be held from February to April 2010. Mr. Schiff noted that the OU7 Site 442 Remedial Action Work Plan is due to regulatory agencies for review on 21 June 2010.

(3) Ms. Hallman briefed on OUs 4 and 9. Ms. Hallman reported that four groundwater monitoring wells were installed at South AFRL Sites 6/113. She also noted that the final inspection for soil and debris sites has been rescheduled to May 2010.

(4) Mr. Oshita briefed on OU5/10 North Base. He noted that the RPM comments for the draft final Feasibility Study are due 22 March 2010. Mr. Oshita mentioned that the OU5/10 excavations are scheduled to be completed by May 2011. He added that the final ROD is scheduled for March 2012. He added that the work scheduled for FY11 construction of groundwater remedies of Sites 282, 285, 422, 240/241, and 231 has been canceled due to a pump and treat waiver denial by AFCEE. The sites will now go thru the RPM review process in-line with the other OUs on base.

(5) Mr. Merendini briefed on OUs 6, 7 (Basewide Miscellaneous), and 8. Mr. Merendini noted that the OU6 post-ROD plans include installation and sampling of six new monitoring wells in March 2010. The draft OU7 Proposed Plan is scheduled for RPM review in February 2010. He added that a non-time-critical removal action is scheduled for Sites 280 and 294. The draft OU8 Site 25 Feasibility Study is in RPM review and the draft final submittal has been extended.

14. The next meeting is scheduled for 20 May 2010 in Boron, California (site location is to be determined).

15. The meeting was adjourned at 1945.

APPROVED AS WRITTEN.

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AI D. DUONG  
Acting Air Force Co-chair  
Restoration Advisory Board

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PETER ZORBA  
Public Co-chair  
Restoration Advisory Board

Attachments:

1. RAB Training—*Remedial Process Optimization*
2. *Perchlorate at Edwards AFB—Current Progress: Site 285 and AFRL*
3. Reports from Environmental Program Managers

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