



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

Nov. 18, 2010

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 95 ABW/CEVR

SUBJECT: Minutes of the Environmental Restoration Program Restoration Advisory Board
(RAB) Meeting, 19 August 2010

1. Time: 1745
2. Place: Rosamond, California
3. Chairman: Col Jose Torres, Air Force Co-chair
4. The following RAB members were present:

<u>Name</u>	<u>Position</u>
Mr. Kevin Depies	California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) Remedial Project Manager (RPM)
Mr. Ai Duong	Edwards Air Force Base (AFB) RPM
Dr. Joseph Healy, Jr.	United States Environmental Protection Agency (U.S. EPA) RPM
Mr. Milton McKay	Air Force Research Laboratory (AFRL) Public Representative
Mr. Tim Post	Cal/EPA Regional Water Quality Control Board (RWQCB) Lahontan Region RPM
Mr. Richard Salazar	Edwards AFB Main Base Test Wing Public Representative
Mr. Peter Zorba	Public Co-chair/Lancaster Public Representative

5. The following members were absent:

<u>Name</u>	<u>Position</u>
Ms. Julie English	Boron Public Representative
Mr. Robert Smith	California City Public Representative
Dr. Leslie Uhazy	Rosamond Public Representative (Alternate)
Ms. Brenda Weems-Hunter	Edwards AFB South Base Public Representative
Mr. Victor Yaw	Mojave 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	Lancaster Public Representative (Alternate)
Vacant	National Aeronautics and Space Administration (NASA) Public Representative
Vacant	North Edwards Public Representative
Vacant	Rosamond Public Representative

6. The following advisors were present:

<u>Name</u>	<u>Organization</u>
Mr. Joseph Dunwoody	95 ABW/CEVR
Ms. Patrice Hallman	95 ABW/CEVR
Mr. Gary Hatch	95 ABW/PAE
Ms. Rebecca Hobbs	95 ABW/CEVR
Mr. Tom Merendini	95 ABW/CEVR
Mr. Bruce Oshita	95 ABW/CEVR
Mr. Stephen K. Robinson	95 ABW/PA
Mr. Warren Seidel	AFFTC/JA
Dr. Stephen Watts	95 ABW/CEVR

7. Others present were as follows:

<u>Name</u>	<u>Organization</u>
Mr. Ranney Adams	AFRL Environmental Manager
Dr. Albert Chang	TYBRIN
Ms. Carla Fucich	JT3
Ms. Allison Gatlin	Antelope Valley Press
Ms. Vanessa Green	JT3/CH2M HILL (Recorder)
Ms. Sarah Grossi	AECOM
Mr. Dave Leeson	Air Force Center for Engineering and the Environment (AFCEE)
Ms. Jennifer Martin	NASA
Mr. Dan Morgan	NASA
Dr. David Newman	Rosamond Resident
Ms. Leilani Richardson	JT3/CH2M HILL
Mr. Paul Rogers	JT3/CH2M HILL
Mr. Manouchehr Salehi	TYBRIN
Ms. Nadya Senftleben	Rosamond Resident
Mr. Ray Sugiura	AECOM

8. Col Torres read the *Statement of Purpose and Conduct* and presented the minutes from the 20 May 2010 RAB meeting for acceptance. The minutes were accepted as presented.

9. Restoration Advisory Board Training Session–*Technical Impracticability/Containment Zone* (attachment 1). Ms. Hallman led a training session explaining how technical impracticability

(TI) and containment zones are obtained through the *Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA)*.

a. Mr. Post commented that up until the AFRL containment zone was put into place, there were only two other containment zones in California.

b. Mr. Duong responded that it took Ms. Hallman and her team more than 10 years and \$40 to 50 million to obtain a TI waiver. Mr. Duong stated the team had to go through the normal *CERCLA* process and provide extensive documentation to prove to regulators that a TI waiver is the best course of action.

10. Presentation—*Small Business Innovation Research (SBIR) Program* (attachment 2).

Mr. Dunwoody briefed on the SBIR and how it is being used to fund Environmental Management projects above and beyond the regular Environmental Management budget at Edwards AFB. The current SBIR program-funded restoration project is a continuous indoor vapor-monitoring system for volatile organic compounds (VOC).

a. Mr. Post asked whether the monitoring system would be placed in buildings that have already been tested. Mr. Dunwoody responded that if regulatory agencies agreed, the systems may be placed in buildings that have been tested, but also elsewhere to determine whether there is an indoor VOC issue. However, the program was far from that part of the planning stage.

b. Mr. Depies asked if there was a schedule posted for this project. Mr. Dunwoody responded that the project is currently in the solicitation stage with different vendors.

c. Mr. Zorba asked if another system was in place while the continuous indoor vapor-monitoring system for VOCs was being developed. Mr. Dunwoody said that the current process for determining if a building has vapor intrusion issues is that Environmental Management staff drill holes in the slab, take subslab samples, and physically collect air samples from the building. This process is a one-time event. Mr. Dunwoody stated that the current SBIR project would attempt to create a prototype that could run continuously and provide real-time information.

d. Mr. Zorba asked if existing technologies were being considered for this application. Mr. Dunwoody responded that existing technologies (e.g., gas chromatographs or sensors) are not accurate enough for the application. Mr. Dunwoody added that the reviewers of SBIR projects, at all levels, conduct background research to determine if there are existing technologies that could be developed into the desired prototype.

e. Mr. Duong commented that vapor intrusion programs are relatively new and have become popular recently, prompting many companies to delve into the market. He said that Edwards AFB will need a lot of support in the next 5 to 10 years in this area and Environmental Management is looking at several options for vapor intrusion programs.

11. Restoration Advisory Board Vacancy Update—Mr. Hatch reported that the applications for the Main Base Air Base Wing, North Edwards, and Lancaster alternate representatives are being processed at the Air Base Wing level. He added that applications had been received and are currently being packaged for the Rosamond and Housing representative vacancies. This leaves

two remaining vacancies: NASA and North Base. Advertising will be placed in the NASA newsletter.

a. Mr. Depies stated that representative attendance at the RAB meetings has been low. He asked if there is a formal process in place for keeping track, evaluating, and encouraging attendance. Col Torres suggested that the RAB propose verbiage to be added to the RAB Charter that would encourage representatives to attend meetings and outline corrective actions for habitual absence. Mr. Seidel stated that this could be done with an amendment supplement to the RAB Charter. Mr. Hatch and Mr. Seidel agreed to write the verbiage. The RAB members would need to review and approve the amendment at a future meeting.

b. It was decided the RAB coordinator would e-mail the RAB members with a tentative date for the next meeting and ask for feedback on availability; then, a decision would be made on which date would facilitate maximum attendance.

12. Reports from Public Representatives.

a. Mr. McKay, AFRL, had no comments from his constituents.

b. Mr. Salazar, Main Base Test Wing, had no comments from his constituents.

c. Mr. Zorba, Lancaster, had no comments from his constituents. However, he added that members of the public have observed that the *Report to Stakeholders* is arriving 1 month behind. Ms. Richardson commented that the reason for this is often due to funding issues.

13. Reports from RPMs.

a. Mr. Depies, DTSC, said that state furloughs are continuing to impact the state's ability to review reports.

b. Mr. Post, RWQCB, said he took two draft Records of Decision (RODs) before the board in July 2010. The board passed a resolution authorizing the RWQCB executive officer to sign the documents if there are no major changes and Mr. Post said he did not foresee any major changes. He plans to take the Site 3 ROD before the board in November 2010.

c. Dr. Healy, U.S. EPA, said the U.S. EPA headquarters in Washington, D.C., has had several questions about what is going on at Edwards AFB. He added that he has been able to work on the following documents: 1) Basewide Conceptual Model, 2) Arroyos Draft ROD, and 3) Site 3 ROD.

d. Mr. Duong called for reports from Environmental Management program managers (attachment 3).

(1) Mr. Dunwoody briefed on Operable Unit (OU)1 Main Base Flightline, Military Munitions Response Program (MMRP), and Petroleum Sites Program. Mr. Dunwoody showed board members maps of the North and South OU1 plumes, Site 44 plumes, the MMRP areas, and the petroleum sites.

(a) Mr. Depies asked why Site 538 was under the Petroleum Sites Program and not handled as a *CERCLA* site because it is contaminated with trichloroethene. Ms. Hobbs noted that contamination occurring after 1986 is handled under the Compliance Restoration Program, which is managed by the Petroleum Sites Program. Mr. Duong added that funding is the primary reason this site is currently under the Petroleum Sites Program and once funding is granted, cleanup would be handled by the appropriate OU program manager.

(2) Ms. Hobbs briefed on OU2 South Base, OU7 Site 3, and OU7 Chemical Warfare Materiel.

(a) Edwards restoration officials are responding to the regulator comments on the Remedial Action Work Plan for Sites 5/14. Funding has been requested for fiscal year (FY) 11 to do a remedial investigation to determine the source of carbon tetrachloride contamination at Site 541. The Site 541 plume has commingled in some areas with the mile-long plume at Sites 5/14. Ms. Hobbs stated that in the future, a revised proposed plan and ROD amendment would be written to combine Sites 541 and 5/14 cleanup, rather than handling the sites separately.

(b) Ms. Hobbs said that regulator comments on the draft final Remedial Action Work Plans for Sites 76 and 86 were going to be delayed a few weeks. At Site 76, potassium permanganate would be injected into the groundwater to destroy the localized trichloroethene. At Site 86, a gaseous nutrient would be injected into the groundwater to destroy the localized trichloroethene contamination.

(c) At Site 29, the final remedy documented in the ROD was to remove surface debris, put a cap on the site, install a fence around it, use stormwater controls and conduct long-term monitoring. After removing surface debris, geophysics revealed that a small amount of contamination remained and clean closure would be more cost effective. Ms. Hobbs stated that clean closure, as opposed to long-term monitoring, is estimated to save \$2.5 million.

(d) Sites 81 and 102 were initially part of the OU2 ROD, but were pulled out for further investigation, sampling, and risk assessment. The Remedial Investigation Work Plan Addendum is in review with the RPMs. After review, the Air Force will prepare a proposed plan, have a public comment period, and write up the ROD.

(e) Additional site cover and better storm controls are estimated to be implemented at OU7 Site 3 Landfill in early 2011.

(f) Under the OU7 Chemical Warfare Materiel program, extensive sampling is not possible at the three CWM areas, because there may be chemical agent present. The plan is to cap the areas, and install stormwater berms and fences.

(3) Ms. Hallman briefed on OUs 4 and 9, AFRL sites.

(a) Ms. Hallman discussed the Remedy-in-Place measures taken at OU4 and 9 sites and showed photographs of the measures.

(b) Site 36 had soil removal actions and remedies for the contamination in the bedrock, which will be addressed in the Arroyos ROD. Access controls and signage have been installed on the road to Site 36.

(c) A fence was installed at Site 115, which was a missile silo, to keep people out but allow access if necessary.

(d) Signage and fencing was added to Sites 167 and 318.

(e) Site 6/113 had stormwater controls, fences, and signage installed.

(f) The groundwater at Site 125 is getting into Test Cell B, and the Air Force is pumping, evaluating, and disposing of it, while looking at future options.

(4) Mr. Oshita briefed on the OU5/10 North Base sites.

(a) The current Federal Facilities Agreement schedule for draft final OU5/10 Feasibility Study will be revised because of additional plume characterization and delineation requirements. Dr. Healy commented that the Air Force, U.S. EPA, AFCEE, and state will be involved in these negotiations.

(b) Site 231 will undergo a Time-Critical Removal Action between September and October 2010 to maximize the window of opportunity between the end of Phase I and beginning of Phase II of the Army's Sky Warrior Program. The Army program shares the location with Site 231.

(5) Mr. Merendini briefed on OUs 6 NASA, 7 Basewide Miscellaneous, and 8 Northwest Main Base.

(a) Mr. Merendini said OU6 NASA is due for a 5-year review in September 2011. Dr. Healy commented that while other document deadlines can be postponed, an extension for the 5-year review would not be available.

(b) The draft OU8 Proposed Plan has been delayed and an extension will be requested. During the Feasibility Study, it was determined that the plumes were not clearly defined.

(c) Operable Unit 8 Site 25 was removed from the OU8 ROD because of the complexity and size of the site. Mr. Merendini said there is a large project in progress to further define the extent of the plumes, install 40 additional wells, and conduct geophysical surveys for delineating fractures in the bedrock, and determine flow. The Air Force is developing a video to provide background and perspective on the remoteness, size and complexity of the site.

14. The next meeting is proposed for 18 November 2010 in North Edwards, California (site location is to be determined).

15. The meeting was adjourned at 1945.

APPROVED AS WRITTEN.

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//original signed by//

JOSE L. TORRES, JR., Colonel, USAF
Air Force Co-chair
Restoration Advisory Board

PETER ZORBA
Public Co-chair
Restoration Advisory Board

Attachments:

1. Restoration Advisory Board Training–*Technical Impracticability/Containment Zone*
2. *Small Business Innovation Research Program*
3. Reports from Environmental Management program managers

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