



**TETRA TECH**

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February 20, 2008

Project Number 0182

Mr. Curt Frye  
BRAC Program Management Office Northeast  
4911 South Broad Street  
Philadelphia, Pennsylvania 19112-1303

Reference: CLEAN Contract No. N62472-03-D-0057  
Contract Task Order 041

Subject: Restoration Advisory Board (RAB) Meeting Minutes of January 30, 2008  
Former Naval Air Warfare Center (NAWC) Warminster, Pennsylvania

Dear Mr. Frye:

Enclosed please find the minutes from the RAB meeting held on January 30, 2008. Copies of the minutes are being sent to the individuals identified on the distribution list.

Please contact me if you have any questions or comments.

Sincerely,

Jeffrey P. Orient  
Project Manager

JPO/sic

Enclosure

c: Ron Sloto (USGS)  
Tim Sheehan (PADEP)  
Toby Kessler (Gilmore & Associates)  
Dave Fennimore (Earth Data)  
Garth Glenn (TtNUS)  
Pat Schauble (ECOR)  
Kathy Davies (U.S. EPA)  
Russell Sirabian (Battelle)  
Norm Kelly (RAB Co-Chair)  
Dennis Orenshaw (U.S. EPA)  
Charlene Creamer (U.S. EPA)  
Bob Lewandowski (Navy BRAC PMO)  
Mike Nines (MGKF Law)  
Chris Candela (ATC Associates)  
File: 112C00182

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**FORMER NAVAL AIR WARFARE CENTER (NAWC) WARMINSTER  
MEETING MINUTES**

**RESTORATION ADVISORY BOARD (RAB) MEETING NO. 109**

**REFERENCE: CLEAN CTO NO. 041**

1. Meeting Date and Time: January 30, 2008, 9:45 AM to 10:40 AM
2. Location: Warminster Municipal Authority Board Room
3. Attendees: See Attachment 1 (attendance list)
4. Summary of Meeting Discussions: See below.

**Introduction and Administrative Update**

Mr. Lonnie Monaco, the Navy's Remedial Project Manager (RPM) for the project working out of the Navy's Base Realignment and Closure Program Management Office (BRAC PMO) in Philadelphia, opened the meeting by welcoming the attendees and providing an agenda for the meeting (Attachment 2).

Comments were solicited on the November 1, 2007 RAB meeting minutes. No comments were offered by those in attendance and the meeting minutes were approved as-is. Mr. Monaco reintroduced Mr. Curt Frye, who is taking over as the Navy RPM for NAWC Warminster as of the conclusion of this RAB meeting. Mr. Monaco is retiring effective February 2, 2008.

Mr. Tim Sheehan was in attendance as the PADEP representative until a replacement for April Flipse, who retired last year, can be hired. Jim Burke, the PADEP project hydrogeologist, also recently retired from PADEP. A permanent replacement will be assigned by Mr. Walter Payne, who is the Environmental Cleanup Program, Special Projects Section Chief and Act II lead for the PADEP Southeast Regional Office.

Mr. Tony Sauder (Pennoni Associates) introduced Mr. Toby Kessler and Mr. Bob Solarz of Gilmore & Associates, Inc.. Gilmore & Associates will be taking over as the Warminster Township Consultants replacing Pennoni Associates. Mr. Kessler is the point of contact for Gilmore & Associates.

### **Action Item Review**

Action items from the November 1, 2007 RAB meeting were reviewed. The action items from the November 2007 meeting are summarized below:

**1. The Navy is to look into ROD and easement issues related to Site 3 soils.**

- The Navy has sent a letter to Mr. Fioravanti to address the ROD and easement issues.

**2. The Navy is to provide a layout drawing to Mr. Fioravanti showing the locations of extraction system-related subsurface lines crossing Site 3.**

- The Navy is still looking into the issue r.e. the layout drawings. The old drawings were found to be inaccurate and Tetra Tech had been tasked to redraw them awhile back. Once copies of the drawings are obtained, they will be forwarded to Mr. Fioravanti.

**3. PADEP is to send out copies of the CRC report as appropriate and the letter requesting that CRC Chemicals include WMA 26 in their site investigation.**

- Mr. Burke sent the TEG copies of the CRC Site Characterization Report in November. The May 4, 2007 PADEP letter to CRC Industries included a mention of Warminster Municipal Authority's (WMA's) interest in site groundwater conditions because of well WMA 26.

**4. WMA is to provide an approval request letter to the Navy for the proposed treatment system designs.**

- WMA submitted an approval letter to the Navy. Mr. Monaco indicated that Navy legal staff is now in the process of reviewing the letter. Ms. Jennifer Allaire is the new Navy legal person working on the project and should be getting a letter out to Mr. Tim Hagy (WMA legal representative) soon.

### **Offsite Investigations**

Neither Ms. Charlene Creamer (U.S. EPA site assessment group) nor Mr. Dennis Orenshaw (EPA Remedial Project Manager) were present at the meeting to provide an update. Ms Kathy Davies (EPA hydrogeologist) is to get a site assessment update from them for the RAB.

Mr. Sheehan reiterated that the PADEP replacement for Mr. Burke had not been assigned yet, thus there was no update available r.e. the progress of the CRC investigation. Mr. Dave Fennimore (Earth Data; WMA consultant) expressed a concern that there is currently no designated long term replacement for PADEP on the project. The Navy will contact Mr. Payne to identify the PADEP replacement. Mr. Fennimore asked whether any additional work was planned for the CRC investigation. Mr. Jeff Orient (Tetra Tech NUS, Navy contractor) indicated that additional soil borings and wells were planned, based on the recommendations in the Site Characterization Report. Mr. Fennimore also asked if there was a schedule for completion of the additional work. Mr. Sheehan will follow up on the schedule question and get a status update for the RAB.

### **Area C Source Assessment**

A due date of mid-February was set for providing review comments on the Draft Area C Source Assessment report sent out by TtNUS in December. Mr. Sauder asked what the Navy's plan was for Area C moving forward. Mr. Monaco indicated that the Navy is planning on taking a wait and see approach for now, since the current extraction system is providing plume containment and concentrations in the most-impacted well have been steadily dropping. Mr. Orient and Mr. Ron Sloto (USGS) indicated that the low well yields and logistical issues associated with the new Ann's Choice wells are also factors to consider in assessing the potential addition of another extraction well. Mr. Bob Lewandowski (Navy BRAC PMO) stated that although the Navy is leaning towards not expanding the current remediation effort in Area C, a final decision has not yet been made. Mr. Sauder asked when decisions would be made regarding abandonment of some or all of the new monitoring wells. Mr. Orient indicated that a decision would likely be made after a few rounds of sampling of the new wells had been completed and the data reviewed by the TEG.

### **Plant Operation/LTM Update**

Mr. Will Torres (ECOR) provided a presentation updating the RAB on treatment plant operations and long term monitoring activities. The treatment plant is working well, with only routine activities occurring (including occasional replacements of pumps and motors). The monthly O&M report is due out shortly. For long term groundwater monitoring, a quarterly sampling round was completed in January and another event is scheduled for April. ECOR and the Navy are currently looking over the draft NPDES permit for the treatment plant – there is a 30 day review period to provide comments to PADEP. The discharge limits appear to be reasonable and in line with the plant capabilities. The coordinates for the plant location are in error and will need to be corrected. The potential need for an Explanation of Significant Difference (ESD) for the OU-1A ROD was discussed – Ms. Davies is to check with Mr. Orenshaw to determine whether the ESD is needed for the anticipated treatment plant modifications, which include a larger air stripper, no carbon polishing, and no metals treatment.

### **Post-ROD Monitoring at OU-10**

Comments were due on the draft OU-10 Sampling Report by November 30, 2007. Mr. Orient indicated that no comments had been received and asked whether the report could be considered final as-is. Ms. Davies is to check with Mr. Orenshaw to verify that EPA has no comments.

### **WMA Update**

Mr. Monaco indicated that he will follow up with Navy legal staff to try to expedite getting a response letter sent to WMA regarding their approval request letter for the proposed municipal well treatment system designs.

### **New Area A/OU-1A Extraction Well**

Mr. Frye stated that ECOR will be tasked with installation of the new extraction well once their contract with the Navy is renewed. Mr. Sauder asked about the anticipated schedule for implementation – Mr. Frye indicated that an award sometime around April is likely. Mr. Fennimore asked about the construction details for the planned well. Mr. Orient stated that the well would be installed adjacent to monitoring well HN-69D, be approximately 100 feet deep, and would have the same construction as the existing extraction wells. Mr. Monaco indicated that the

pipng for extraction well EW-18 (which was never used as an extraction well) would be re-routed for use in the new well. Mr. Sauder and Mr. Fennimore asked if the TEG would be involved in the well drilling/installation process, given the sensitivity of the site and DNAPL concerns, and also asked if a work plan would be available for review. Ms. Davies concurred that a careful approach was necessary and suggested using the existing Foster Wheeler plan as a starting point for planning the new well installation. Mr. Frye stated that preparation of a work plan would be included in the Navy scope of work provided to ECOR for the project. The upcoming scope of work will also include the planned treatment plant modifications.

### **Miscellaneous Topics and Issues – Action Items**

Ms. Carolyn Scala (Battelle) stated that Battelle is preparing a source treatment evaluation report for Area A. The current plan is to have a draft report out before the next RAB meeting. Mr. Fennimore asked what alternatives are being considered. Ms. Scala indicated that zero-valent iron injection, chemical oxidation, thermal treatment, and enhanced reductive dechlorination are being evaluated.

Action Items identified at the conclusion of the meeting include:

- Mr. Sheehan is to check into the status of the CRC investigation and get a PADEP point of contact to call the Navy.
- Ms. Davies is to get an update on the status of EPA site assessment activities along Louis Drive.
- Mr. Orenshaw is to get a determination whether an ESD is needed for the proposed treatment plant modifications and check with BTAG regarding the OU-10 Report.
- The Navy is to get a letter back to WMA responding to their approval request letter for the municipal well treatment system upgrades.
- Battelle is to get the draft source treatment evaluation report out by the end of February.

The RAB expressed their appreciation to Lonnie Monaco for his longtime key involvement with the investigations, cleanups, and property transfers at the former NAWC Warminster and wished him well in his pending retirement.

**Next Meeting Date**

The next RAB meeting date was set for May 14, 2008 at 9:30 AM in the WMA Board Room.

The meeting was adjourned at approximately 10:40 AM.

**ATTACHMENT 1  
ATTENDANCE LIST**

NAWC WARMINSTER  
 TECHNICAL SUBCOMMITTEE/RAB MEETING  
 DATE: January 30, 2008

NAME	AFFILIATION	PHONE	EMAIL
JEFF ORIENT	TETRA TECH	412/921-8778	Jeff.Orient@tetratech.com
Ron Soto	US Geological Survey	610-431-2343 x212	rsoto@usgs.gov
Kathy Davies	USEPA	215-814-3315	davies.kathy@epa.gov
LONNIE MONACO	NAVY	215 897-4911	orlands.monaco@navy.mil
Curt Frey	NAVY	215-897-4914	curtis.frey@navy.mil
Jen Good	ECOR Solutions	484-887-7510	good@ecor-solutions.com
Will Torres	ECOR Solutions	484-887-7510	torres@ecor-solutions.com
Peter Schaub	ECOR Solutions	484 887-7510 x 205	Schaub@ecor-solutions.com
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TIM SHEEHAN	PADEP	484-250-5726	TSHEEHAN@STATE.PA.US
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Carolyn Scala	Battelle	215-504-5003	cscala@battelle.org

**ATTACHMENT 2  
MEETING AGENDA**

**NAWC WARMINSTER  
TECHNICAL SUBCOMMITTEE/RAB MEETING**

**30 January 2008 9:30 AM**

**WMA Board Room**

**415 Gibson Ave**

**Warminster, PA**

**MEETING AGENDA**

**Administrative Update**

- Minutes of the Last Meeting
- Review Action Items (see below)

**Off-Site Investigations**

- EPA update on Louis Drive assessments
- PADEP update on CRC Chemicals

**Area C Source Assessment**

- Status of Draft Source Assessment Report reviews.

**Treatment Plant Operation/LTM**

- Plant operating status
- LTM update

**Post-ROD Monitoring at OU-10**

- Review/closeout discussion (comments were due by November 30; none received).

**WMA Update**

- Status of Wells #13 and #26 treatment upgrades.

**New Area A/OU-1A Extraction Well**

- Update on Navy plans for implementation of new extraction well installation.

**Miscellaneous Topics and Issues – Action Items**

**Time and Location of Next Meeting: - Date to be determined**

## **Action Items**

The following action items were identified at the wrap-up of the November 2007 meeting:

- The Navy is to look into ROD and easement issues related to Site 3 soils.
- The Navy is to provide a layout drawing to Mr. Fioravanti showing the locations of extraction system-related subsurface lines crossing Site 3.
- PADEP is to send out copies of the CRC report as appropriate and the letter requesting that CRC Chemicals include WMA 26 in their site investigation.
- WMA is to provide an approval request letter to the Navy for the proposed treatment system designs.

## **Directions to the WMA Board Room:**

**From County Line Rd** - instead of turning north (right) onto Jacksonville, continue west on County Line to York Rd. Turn north (right) onto York Rd. Continue to Henry Ave. Turn west (left) onto Henry Ave. Continue to Gibson Ave. Turn right into the parking lot shared by the Warminster Township and WMA. The WMA building is located towards the rear.

**From the former NAWC** - proceed to the intersection of Street and Jacksonville Rd. Turn west (right) onto Street Rd. Continue west to York Rd. Turn south (left) onto York Rd. Continue to Henry Ave. Turn west (right) onto Henry Ave. Follow directions as above to the WMA building.