

NAVAL SUPPORT ACTIVITY MID-SOUTH  
RESTORATION ADVISORY BOARD

Co-Chairs

Mayor George R Harvell, Jr  
City of Millington

Captain Wanda Riddle  
Commanding Officer  
NAVSUPPACT Mid-South

Community Members

Mr Craig Chapman

Mrs. Frieda M. Ellerbrook

Mr Kenny Kelly, Sr

Mr Norman C LaChapelle

Mr Russell Neighbors

Mr Russell Noble

Mr Tom Seale

Mr. Charles F Smith

Cleanup Team Members

Mr Jim Reed  
Department of Defense

Mr Clayton Bullington  
State of Tennessee

Ms. Jennifer Herndon  
EPA Region IV

Adjunct Technical Advisors

Mr. Jim Morrison

Mr. John Stedman

Ms Tonya Barker

Mr. Jack Carmichael

Ms Sue Millican

July 29, 2002

Dear RAB Members:

Enclosed with this letter are several items for your attention.

First is a letter from your co-chairs, Captain Riddle and Mayor Harvell. In the letter, they outline for you the recent change in meeting frequency that the RAB adopted at the last meeting. In the letter, they have included their telephone numbers if you have any questions or concerns.

Also in this package is a copy of the minutes from the April meeting. At that meeting, along with the updates on environmental progress, you will notice that the Navy committed to maintaining communication with the members of the RAB and the mailing list on activities and progress of the environmental program. We will begin these soon.

If you have any questions or comments about the minutes, please don't hesitate to call me at (843) 820-5543, or you may call Ms. Sue Millican, NSA Mid-South Public Affairs Officer, at 874-5761.

Sincerely yours,

*Jim Reed*

Jim Reed  
Project Manager

enclosures

# NAVAL SUPPORT ACTIVITY MID-SOUTH RESTORATION ADVISORY BOARD

July 26, 2002

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Mr. Jack Carmichael

Ms. Sue Millican

Dear RAB Members:

At our previous meeting, April 23<sup>rd</sup>, the attending members of the RAB agreed that it would no longer be necessary to hold regular meetings of the board. The board will continue to meet, but only on an "as-needed" basis.

As you know, property transfer is complete and there are only a few sites remaining in the environmental installation restoration (IR) programs. The remaining investigations and activity are the kind that often takes some time to complete (like groundwater monitoring and testing cleanup options). Therefore, the amount of time to obtain the results from the monitoring and testing has reached a point where regular meetings are no longer necessary. We have discovered that there have been times when no new information was available to pass along.

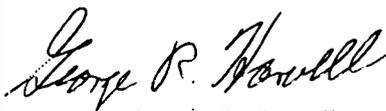
The group in attendance agreed that we would maintain the RAB for the foreseeable future. This is important because there may still be issues that require a public forum. We want to ensure there is a way for the Navy, environmental regulators and community to get together and discuss those issues.

We will continue to maintain both RAB Repositories, the one located at the Millington Public Library, and the one on Naval Support Activity Mid-South, in Building S-455.

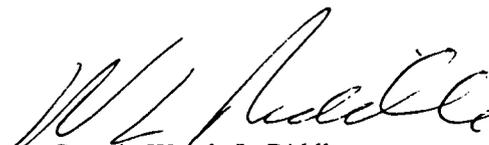
As a public/private group, meetings of the RAB can be called upon agreement by the co-chairs, with a target of at least one meeting per year to cover accomplishments and future goals. As community members, your opinions are valuable, as is your connection with the community. Please contact one of us if you would like to convene a meeting for a specific purpose. Indeed, feel free to contact either of us if you would like to discuss this change in meeting frequency or any other item related to the environmental work at the base.

Thank you for continuing to serve on this committee.

Sincerely,



Mayor George R. Harvell  
Co-chair (872-2211)



Captain Wanda L. Riddle  
Co-chair (874-5101)

**NAVAL SUPPORT ACTIVITY MID-SOUTH  
Restoration Advisory Board Meeting Minutes**

Baker Community Center  
Millington, Tennessee  
April 23, 2002

Attendees

Mayor George R. Harvell, Jr.  
Captain Wanda Riddle  
Clayton Bullington  
Craig Chapman  
Jennifer Herndon  
Russ Noble  
Jim Reed

Opening Remarks

Captain Riddle opened the meeting by welcoming everyone. She then introduced Mr. Clayton Bullington of the Tennessee Department of Environment and Conservation and Mr. Jim Reed, Southern Division, Naval Facilities Engineering Command to discuss the site updates.

BRAC and ERNA Site Updates

Mr. Bullington and Mr. Reed provided progress reports on the sites where work still remains to be completed. Handouts with this information were provided to the assemblage, and are attached to this set of minutes.

ERNA Update

During the discussion of the sites covered under the Environmental Restoration Navy Account (sites to remain under Navy control), Mr. Bullington was asked about any contamination at the old service station. Mr. Bullington replied that there is still petroleum contamination at the site. He said they only found petroleum compounds, no hazardous materials, even though it was a hazardous material accumulation area.

Mr. Bullington was also asked if tests confirmed that Monitoring Natural Attenuation was working at SWMU 2. He responded that they found cis-1,2-dichloroethene (a volatile organic compound) and other breakdown products, indicating that Monitored Natural Attenuation is working. The Navy is installing additional deep monitoring wells to keep an eye on it.

Mr. Bullington was asked about Big Creek. He replied that no contaminants have been showing up in the creek. Mr. Bullington said they will make decisions about what is or is not affecting the creek by sampling groundwater under creek. He noted that this is a difficult task.

### *BRAC Update*

During the discussion of the sites covered by the Defense Base Closure and Realignment budget (sites to be transferred from the Navy), Mr. Reed was asked about surface contamination at SWMU 5. Mr. Reed replied that there are no surface soil concerns. Samples taken after the removal confirmed that there is no risk.

Mr. Reed was then asked why there is a deed restriction on surface access at that site. He replied that they cannot guarantee there is no risk until all evaluation is complete. This includes a study of soil and groundwater at the site to make sure there is no additional contamination getting into groundwater from the soil.

In addition to the information in the handout, Mr. Reed added that new monitoring wells will be installed in April 2002 for solid waste management unit (SWMU) 15 to monitor loess groundwater at the site. A two-week dual-phase pilot study (groundwater extraction) is scheduled in the area. If the technique works, it will be used for active remediation.

Mr. Reed also added information about the pilot treatment systems at Area of Concern A (AOC A). He noted that they have had some problems with the vegetable oil system. Notably, it's not working well enough to be considered as a remedy for this location. The EnSafe pilot project, which uses sodium acetate and is more active, has emerged as the technology of choice.

Captain Riddle then introduced Phil Atkinson (EnSafe), to give a presentation on the Monitored Natural Attenuation evaluations taking place for the Corrective Measures Studies at SWMUs 14 and 39.

### *Evaluation of Monitored Natural Attenuation at SWMUs 14 & 39*

Mr. Atkinson told the group that the investigation report for Assembly E (EnSafe, 2000) recommended corrective measures for SWMU 14. Specifically, the report recommended action to address chlorinated solvents in loess groundwater. The SWMU 14 Work Plan for the Corrective Measures Study (CMS) (EnSafe, March 2001) concluded with a recommendation to evaluate Monitored Natural Attenuation as a potential remedial alternative for this contamination.

### *Site Histories*

Mr. Atkinson provided brief site histories on the locations being evaluated.

- SWMU 14 was a paint application and removal area. Building S-140 operated as a painting facility since 1943 until it was demolished in 1985. Paint-related wastes were collected into two 1,885- gallon sump pits, which were emptied as needed.
- SWMU 39 consists of a former PCB storage area and a former dry-cleaning facility. Building S-74, built in 1943, housed a laundry and dry cleaners until 1981.

### *Rationale*

Due to the hydrogeologic characteristics at each site, the limited extent of contamination, and the fact that no one is currently exposed to the contamination, a streamlined CMS was proposed. Monitored Natural Attenuation was identified as the alternative with the greatest potential to achieve

the remedial goals for these sites.

Preliminary evaluation of Monitored Natural Attenuation at SWMUs 14 and 39 suggested conditions in the groundwater that are conducive to degradation of volatile organic compounds such as PCE and TCE. These conditions include low dissolved oxygen and high organic carbon concentrations, both of which create a beneficial environment for natural bacteria to flourish. It is these bacteria which break down (degrade) the compounds.

#### *Approach*

Mr. Atkinson said that EnSafe would have to collect additional geochemical and volatile organic compound data to determine whether Monitored Natural Attenuation would work as a long-term remedy at these locations.

To do this, they will complete the following tasks:

- Install three additional wells at SWMU 14 and four additional wells at SWMU 39. The wells will be used to further evaluate the extent of chlorinated solvents in groundwater and monitor contaminant degradation and aquifer geochemistry.
- Sample these new wells and previously installed wells quarterly for one year. Samples will be analyzed for volatile organic compounds, petroleum hydrocarbons (SWMU 39 only), and natural attenuation parameters including chloride, dissolved oxygen, pH, total organic carbon, and iron.
- After four quarters of monitoring, they will evaluate the volatile organic compound and geochemical data to determine how effective Monitored Natural Attenuation has been for site remediation. If Monitored Natural Attenuation is recommended in the CMS report as a viable remedy, a long-term monitoring program will be developed.

Captain Riddle asked Keith Johns (EnSafe) to update the group on the status of the repositories and membership issues.

#### *Update on RAB Membership and Information Repositories*

Mr. Johns informed the board members that the repository located at the public library in Millington will remain open. This is due to the additional security measures currently in place on the Navy base.

Based on further changes to the cleanup schedule, and obvious lack of interest on the part of the community members, Captain Riddle proposed a change in communication methods.

She proposed a two-part change in the program:

- RAB meetings will no longer be regularly scheduled, but will be called as needed, based on current issues or community interest;
- To replace the frequency of meetings, RAB members and other individuals on the mailing list will receive mailings, such as an update or newsletter, between meeting dates.

Captain Riddle pointed out that the Cleanup Team will continue to meet and, as the Commanding

Officer, she is always apprised of progress. Captain Riddle then added that she is always accessible to RAB members.

Clayton Bullington remarked that there are only a few sites left in the cleanup program. He added that the U.S. Environmental Protection Agency and Tennessee Department of Environment and Conservation have requirements that will occasionally require public participation. He mused that meetings might be called before the remedy is agreed upon in statement of basis, to receive comments. The RAB could meet to discuss these sites and potential remedies as the Cleanup Team enters discussions. He said this would provide the opportunity to publicize a meeting when action is about to be made/big decision point and make a big deal about it.

After a brief discussion, the attending community members of the board voted unanimously to accept this proposal. From this point forward, RAB meetings will be called as needed and interim mailings will be distributed to RAB members and the entire mailing list.

#### Updates from the Millington Municipal Airport Authority and Industrial Board

Russ Noble provided a brief update from the Airport Authority. He said the airport is replacing or rewiring all lighting and bringing sewer and water down Dakar Avenue, hopefully all the way to the taxiway. This would help open development north of that area. He said they are also working on concrete repair.

Captain Riddle asked how long the airfield would be closed during repairs. Mr. Noble replied that the airfield should only be closed eight hours at a time. He said he would advise the Captain of those dates and times when they have been determined.

Mayor Harvell told the group that they have applied for some federal dollars to extend West Union northwards. Mr. Reed asked if water and sewer projects had begun. Mayor Harvell said that all funding and approvals are in place. The project should begin soon.

Mr. Noble said that the only concern is that some uncontaminated land on the North Side still has use restrictions included in the deed. Captain Riddle said that this kind of issue is a function of reuse, not environmental, and that would be the best place to have those discussions.

There were no further comments or questions. The next meeting will be held when the situation calls for it, and appropriate announcement will be made.

Meeting adjourned at 7:15 p.m.

**Property to Be Transferred**  
**BRAC Sites**  
*Base Realignment and Closure*

**Naval Support Activity Mid-South**  
**Status of Sites with Work Remaining**  
**April 2002**

BCT = Base Cleanup Team    SWMU = solid waste management unit  
TDEC = Tennessee Department of Environment and Conservation  
USEPA = United States Environmental Protection Agency

Sites Requiring Additional Investigation	Action To Be Taken [expected date of action]
None other than those listed below	

Corrective Measures Studies (CMS)	What Is to Be Studied for Corrective Action
Northside loess soil and groundwater. Includes shallow (loess) soil and groundwater at SWMUs 5 and 15 ( <i>Aircraft Fire Fighting Training Area and N-94 Underground Tank Farm</i> ), and Building N-12	<p>Shallow (loess) petroleum-contaminated soil and groundwater.</p> <ul style="list-style-type: none"> <li>• <u>N-12 and SWMU 5</u> - Groundwater will be monitored quarterly through at least December 2002 to determine if an active remedy will be required.</li> <li>• <u>SWMU 15</u> - Active remediation for SWMU 15 is being evaluated in the Loess CMS Work Plan, which is being reviewed by the BCT. New monitoring wells will be installed in April 2002.</li> </ul>

Area of Concern A (AOC A) ( <i>Northside Fluvial Groundwater</i> )	<p>Two pilot-scale remediation systems are in place to evaluate anaerobic/aerobic sequential treatment of chlorinated solvent-contaminated groundwater at AOC A. Both systems seek to remediate the groundwater by increasing natural biological activity, thereby degrading the solvents.</p> <ul style="list-style-type: none"> <li>• The system using sucrose to enhance biological activity, near the N-126 Hangar, was shut off in December 2000. Monitoring was completed in March 2001. A draft report on the test results is being reviewed by the Navy, before submission to the BCT.</li> <li>• The other system is a one-time injection of vegetable oil in August 2000 at the former N-6 Hangar. A report is expected in June 2002 on this pilot study. The system continues to be monitored.</li> </ul> <p>Results of the pilot studies will be incorporated into the CMS. The CMS report is expected to be submitted to the BCT in May 2002.</p>
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Voluntary Corrective Actions (VCA)	Action To Be Taken
	all work completed

Tanks and Oil/Water Separators	Status
	all work completed

*Note: These sites are all on the NORTH side of Navy Road. See map on opposite side of this sheet.*

**Naval Support Activity Mid-South  
Status of Sites with Work Remaining  
April 2002**

**Property to Be Retained by the Navy  
ERNA Sites  
Environmental Restoration Navy Account**

BCT = Base Cleanup Team    PCB = polychlorinated biphenyl    RCRA = Resource Conservation and Recovery Act  
SWMU = solid waste management unit

TDEC = Tennessee Department of Environmental and Conservation    USEPA = United States Environmental Protection Agency

Sites Requiring Additional Investigation	Action To Be Taken [expected date of action]
None other than those listed below.	
Corrective Measures Studies (CMS)	What Is to Be Studied for Corrective Action
SWMU 2 <i>(Southside Landfill)</i>	Chlorinated solvents in shallow (alluvial) groundwater adjacent to the Big Creek Drainage Canal. Revised RCRA Facility Investigation Report was submitted in December 2001 and approved by EPA and TDEC. Additional groundwater sampling conducted in January 2002. Next round scheduled for July 2002. Corrective Measures Study Work Plan is being developed.
SWMU 14 <i>(Former Building S-140 Site; also includes former SWMU 46, Hazardous Waste Accumulation Point for S-140)</i>	Chlorinated solvents in shallow (loess) groundwater. Monitored natural attenuation has been approved by the BCT. As part of the Corrective Measures Study, additional groundwater monitoring wells are being installed in April 2002. Wells will be sampled periodically to evaluate the effectiveness of monitored natural attenuation.
SWMU 39 <i>(former PCB transformer storage area at Building S-74)</i>	Chlorinated solvents in fluvial deposits groundwater. Work plans for a Corrective Measures Study and Treatability Study have received approval. Additional groundwater monitoring wells will be installed before summer to aid evaluation of monitored natural attenuation.
Voluntary Corrective Actions (VCA)	Action To Be Taken
SWMU 19 and SWMU 49 <i>(former underground waste tank and former hazardous waste accumulation point at Building 341)</i>	Petroleum-impacted soil at both SWMUs will be removed from after the Navy Exchange Service Station has been demolished. The project has three phases: <ul style="list-style-type: none"> <li>• Tank removal (completed in April 2001)</li> <li>• Demolition of the building (reliant on funding, anticipated for Fiscal Year 2003)</li> <li>• Removal of petroleum-contaminated soil (after demolition)</li> </ul>
Navy Exchange Service Station	Removal of petroleum source area completed in December 2001. Post-removal groundwater monitoring will begin in April 2002.
Petroleum-impacted soil under Building S-75 <i>(former boiler plant)</i>	Building S-75 and foundation recently demolished and removed. Petroleum-impacted soil, once underneath the building, will be removed in May 2002. New sod will be placed over site once soil removal is complete.
SWMU 3 <i>(Building N-121)</i>	Demolition of the Building N-121 superstructure was completed in December 2000. Soil samples, to determine if soil under the slab has been impacted, will be collected after the slab is removed. Slab removal awaiting funding.

**NOTE: These sites are primarily on the SOUTH side of Navy Road. See map on opposite side of this sheet.**