



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 371

MEETING MINUTES**FINAL**

371

SUBJECT: BRAC Cleanup Team Meeting

MEETING DATE: March 21, 1997 at 8:30 a.m.

MEETING LOCATION: Building 144, Defense Distribution Depot Memphis

ATTENDEES: See Attached Attendance Sign-in Sheet

DISCUSSION**1 Agenda**

- Whoever prepared/distributed the agenda should include the meeting time and date.

2 Risk Assessment for Golf Course Impoundments

- Comments received from Defense Distribution Region East (DDRE), Tennessee Department of Environment and Conservation (TDEC), Environmental Protection Agency (EPA), and Defense Distribution Depot Memphis (DDMT)
- Corps of Engineers-Mobile District (COE-Mobile) will provide comment responses by Friday, March 28, 1997.
- The BRAC Cleanup Team (BCT) will provide DDMT any modifications to the comment responses by April 30, 1997. DDMT will forward any comment response modifications to COE-Mobile. Contractor can turn final document around in two weeks once any modifications received.
- The BCT agreed the data used in the report was old and updated data was necessary for the risk assessment (RA) process. However, Mr. Dann Spariosu (EPA) believed the goal of this risk assessment was to get a basic determination if there was a problem. A formal risk assessment will be conducted for the entire installation as part of the feasibility study project phase. Mr. Spariosu also suggested to Mr. Kurt Braun (COE-Mobile) that the AE contact the EPA toxicologist to discuss sampling issues one-on-one.
- Ms. Denise Cooper (DDMT) interjected that the thinking at the time was to eliminate the risk and at the same time take samples. Mr. Spariosu countered that this RA served in a screening capacity. It was prepared to give the BCT an idea if an emergency situation existed that required actions as well as to demonstrate that there was no need to drain and dredge the lake. Mr. Spariosu believed there was no need to redo the current RA or delay finalizing the current RA.
- The BCT agreed to go through the comment response process and finalize the current RA. The BCT also agreed to take some more fish tissue samples per EPA Risk Assessment Guidances (RAGs).

- Mr. Spariosu will provide a RAGs point of contact to Mr. Braun. The BCT agreed not to spend a lot of time reporting the results of the fish sampling because the results would be part of the overall remedial investigation/feasibility study report and the associated risk assessment.
- Mr. Kaden suggested the BCT discuss how the fish sampling results would be issued at another BCT meeting after the sampling had occurred and the BCT had the results.
- Ms. Terri Gray (RAB member) expressed the opinion that the planned sampling effort should include similar types of fish and analyses as old data in order to compare the past with the present.
- Mr. Ellis Pope (COE-Mobile) and Mr. Shawn Phillips (DDMT) will coordinate on the scope, so that it will include sampling and analyses based on both EPA's RAG and the old data. Mr. Braun will prepare a cost estimate. Mr. Braun will task the contractor to submit a scope of work and a cost estimate for collecting and analyzing fish tissue samples. DDMT, EPA, and TDEC will need the scope for their records.

3. Status of Dunn Field Groundwater Reports

- DDMT forwarded the Modeling Report that Waterways Experiment Station (WES) prepared to TDEC and EPA during the week of March 18, 1997 for 30-day review and comment. Mr. Spariosu and Mr. English said their document comments would basically consist of the need for more information to explain what WES put into the model. The BCT was still looking for something to review such as modeling parameters, boundary conditions, assumptions, etc.. The BCT thought they had requested information such as modeling parameters, boundary conditions, and calculations in December after the WES presentation. Mr. Spariosu reminded the BCT that Mr. Jack Carmichael (USGS) had commented to WES at the December meeting that these were pretty pictures, but that he needed to see information such as what boundary values they chose. Mr. Spariosu asked if Mr. Carmichael could contact WES direct to discuss his specific concerns about the Modeling Report.
- Mr. Julian Savage (COE-Huntsville) asked what level of report the BCT required because an in-depth written report would have to go through WES's editors and would take some time to prepare.
- Mr. Terry Templeton (TDEC) wanted to see WES discuss the geologic interpretation. Mr. Templeton noted some verbiage in the Modeling Report suggested some things that may turn out to be fairly controversial about the interpretation and that may be key to recovery system. He suggested the BCT talk about some of these issues and what WES could provide. He realized it was just a model and that WES may not have answers.

- Mr Underberg then discussed CH2M Hill's 3-phase approach to the installation of the extraction system. The first seven wells will go along the fence line. Mr Underberg was confident of the spacing for these initial seven wells because of CH2M Hill's empirical check of WES's modeled well locations. Once these wells were in place, the drawdown data received from these wells would be entered into the model to plot the locations of the other wells. If both WES and CH2M Hill were wrong about the well placement, then the BCT would be looking at placing some wells offsite to catch the through flow. As currently designed, the initial seven wells along the fenceline should intercept the bulk of contaminant flow. The other wells would be placed in areas where concentrations were lower and would extend the barrier. Together, the wells along the fenceline would basically intercept the contaminant plume.
- Mr. English voiced the opinion that the design was attacking the problem backwards by not going after the entire plume. He wanted to see something along the leading edge of the plume, which would also lessen the impact of disposing of pumped water.
- Mr. Spariosu brought to the BCT's attention that by placing the wells within the highest concentration levels the pump system would be attacking the source.
- Mr Underberg reminded the BCT that once the discharge point was blocked, natural attenuation would start working on the leading edge of plume.
- Mr. English also voiced the concern that after all the wells were installed and working some of the first seven wells may no longer be needed. Mr. Braun reminded him that once the source was removed several or all of the wells may no longer be needed.
- Mr Underberg said WES used the edge of the depression as a model boundary due to lack of information about the formation's western end. WES also had problems modeling the channel due to this lack of information. Mr Underberg added that the well placement, as designed, stopped the flow of contaminants from entering the depression.
- The BCT asked the question, "Do we install several more wells to be able to model the depression? Or do we install pumping wells and stop the flow of contaminants from reaching depression?" Mr. Spariosu said he would probably favor going with the first seven wells, but that he required USGS's input before concurring with this design. Mr. English interjected that the first seven wells would be helpful in providing the BCT documentation to assist with property access of necessary off site wells and to support the discussion of natural attenuation as a cleanup alternative. The BCT supported installing pumping wells.
- Mr. Savage will have WES prepare a report to include boundary conditions, modeling parameters, assumptions, etc. Preparing the report should simply involve pulling tables together.
- The BCT agreed that while WES pulled together a report to include the boundary conditions, modeling parameters, assumptions, Mr Spariosu would have Mr Carmichael review the WES Modeling Report and contact WES and Mr Underberg with any specific questions or data requirements.

- Mr Savage will contact WES on March 24, 1997 via phone then follow up with a letter requesting the report be to him by March 28, 1997 that will "cc" DDMT, EPA, and TDEC Mr Savage will fax the report to DDMT, EPA, and TDEC, then forward a hard copy to DDMT, who will forward it on to EPA and TDEC.
 - Comments on 50% Design, Groundwater Characterization Technical Memo, and WES Modeling Report are due to DDMT by April 18, 1997
 - The BCT tasked Mr Savage to contact WES about attending a groundwater modeling meeting at DDMT the week of April 21, 1997.
- 4 April/May BCT and RAB meetings and BCT Workshop
- Both TDEC and EPA will be unavailable for a BCT meeting on April 17, 1997 (the next regularly scheduled meeting date) DDMT will request COE-Huntsville and Mobile attend a project meeting on April 17, 1997 The BCT planned to meet again the week of April 21, 1997 at the groundwater modeling meeting.
 - The BCT will be in Charleston for a BCT Workshop the week of the May Restoration Advisory Board (RAB) meeting. The BCT suggested that RAB decide at the April meeting whether to cancel or postpone May's meeting. Ms. Sue Estes (ME₃) will put something together for the RAB announcing the BCT's desire to move the RAB meeting to May 22, 1997.
 - If DDMT intended to send both the remedial project manager, Mr Phillips, and the BEC to the BCT Workshop in Charleston, then Mr English needed a letter from Mr. Kaden indicating that DDMT will send both so Mr English can justify sending Mr. Terry Templeton (TDEC)
 - Mr. English suggested that if Mr. Templeton and Mr. Phillips could not attend the BCT Workshop, then perhaps the BCT could arrange a partnering session in state to "download" the BCT Workshop information to them
5. Amendment to Groundwater Interim Remedial Action Record of Decision
- The 50% Design deviated from Alternative 8 in the Interim Record of Decision (IROD) with which TDEC and EPA have concurred The BCT questioned whether this deviation required an action with respect to the IROD?
 - Since this was an IROD, Mr. Spariosu was uncertain what actions were necessary and will check with his office to answer to this question.
 - Mr Kaden mentioned that the BCT and DDMT must be prepared to explain the changes to the public - both the pros and the cons
- 6 Project Management
- The BCT tasked Mr Savage to have CH2M Hill update the communication project listing and to begin providing the project schedules (Microsoft Project) as they had in the past.

7. Background Sampling Report

- CH2M Hill forwarded to COE-Huntsville a pre-draft report providing results from the Background Sampling activities conducted in October and November 1995
- Mr. Savage will forward six copies of the pre-draft to DDMT, TDEC and EPA by March 28, 1997 for review and comment.

8. Groundwater Interim Remedial Action/WES Presentation

- Mr. Kaden asked if WES was available to attend the May RAB meeting and if the BCT wanted WES to make the December presentation to the RAB. He then suggested an overall groundwater presentation be prepared that included WES's part in the design process
- Mr. English suggested that after Mr. Carmichael and the other BCT members had reviewed WES's Modeling Report that "we" present the information to the RAB with WES present to answer specific questions. Regulators must be comfortable with the model before allowing anyone from WES to explain it to the RAB.
- The BCT tasked Mr. Savage to request WES attend the May 22, 1997 RAB meeting.
- The BCT discussed having Mr. English or USGS (Mr. Parks) make the presentation. Mr. English suggested Mr. Michael Bradley (USGS) make the presentation. Mr. Kaden also suggested having USGS at the RAB to address questions from the presentation.
- Mr. English has a video on groundwater remediation techniques, but it may too long to show at a RAB meeting. Mr. English will look at it, then send it to DDMT to view. Mr. Underberg suggested DDMT look at breaking the video into segments to show at consecutive RAB meetings. Mr. Savage offered to make copies of the tape for RAB members to take home to view.
- The question of who was to prepare the presentation was never answered. Mr. Savage will have WES provide their public relations information that should discuss who they are and what they do. Mr. English also wanted USGS to provide input into the presentation.

9. City of Memphis Sewer Criteria - Mr. Greg Underberg

- DDMT, COE-Mobile and CH2M Hill met with the City of Memphis' Public Works Division on March 14, 1997 to discuss discharge limits for the Dunn Field groundwater interim remedial action (IRA)
- The City will accept discharge containing DDMT's maximum concentrations. These concentrations are lower than the City's limits. The City will be able to increase their limits, if necessary.
- The City requested weekly sampling of the discharge for the first four weeks of pumping, which would then go to monthly then quarterly sampling.
- The City wanted \$250,000 per year to allow discharge into the sanitary sewer.
- In the past, CH2M Hill had concerns about iron fouling of a treatment system. CH2M Hill sampled several of the wells again to get more information about the iron levels. The iron problem does not appear to be as bad as CH2M Hill previously thought. CH2M Hill will compare the costs of treatment vs. discharge to the City.

- Treated water could go into the stormdrain system at Outfall 11, if it has the capacity DDMT's stormwater discharge permit would have to be modified to accept the discharge. The design, if water was to be discharged into a stormdrain, should determine capacity of the stormdrain during storm events. Someone suggested the design include sending the water to the City during storm events. This would be dependent upon the capacity of stormdrain system.
- Mr. English asked if adjacent pumping wells would close the gap in the event a well pump failed. Mr. Underberg responded that the adjacent wells would close the gap to a certain extent, but the well pump would be back on line within 24 to 36 hours. Also, down gradient wells should capture any contaminants that made it past the non-operating well.
- Mr. Braun suggested negotiating the discharge price with the City, since discharging to the City was one of two options. Mr. Kaden agreed negotiating with the City must occur, but pre-treatment costs must be taken into account and used as a leverage in these negotiations.

Concur:

Signature Obtained
G.L. KADEN
DDMT BEC

Signature Obtained
DANN SPARIOSU
EPA Region IV

Signature Obtained
JORDAN ENGLISH
TDEC

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