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NOTES FROM BASE REALIGNMENT AND CLOSURE TEAM MEETING DATED 11 MARCH  
2002 CNC CHARLESTON SC  
4/25/2002  
CH2MHILL

## Notes from March 2002 BCT Meeting Navy's CNC BCT Office, Charleston, SC

PREPARED FOR: Charleston Naval Complex BCT  
PREPARED BY: Richard Garcia  
DATE: April 25, 2002

The March 2002 BCT Meeting was held at the Navy's CNC BCT office in Charleston, South Carolina. The meeting began at 1300 hrs on Monday, March 11, 2002, and concluded at 1000 hrs on Wednesday, March 13, 2001.

The meeting began with introductions of team members, agenda review and action item review. There was a brief discussion to move the April meeting to Atlanta, GA. This was requested by Tony Hunt to reduce travel expenses for EPA personnel. DHEC would be limited in the amount of individuals that could attend so it was decided to conduct the April meeting in Columbia, SC.

### Monday, March 11, 2002

#### Update on Field Activities

CH2M-Jones provided an update on field activities at the following sites:

AOC 607: Dean W. presented some graphs to show the heating trends taking place at different locations at AOC 607 and compared existing heating trends with the heat required to volatilize the chlorinated solvents. He began by pointing out an area in the Southwest corner of the site where high readings were observed. Several additional electrodes will be installed in this area. Paul B. asked if we had identified the source or if the plume had moved. Tom B. stated that it could be a result of solubility due to the heating creating dissolve concentrations. Dean stated that it might be a local DNAPL pool in the clay layer.

He explained that the boiling points for TCE and PCE were lower than that of groundwater and that at present, there was enough heating to boil the groundwater, which indicates that TCE and PCE are also being volatilized by the heating. Dean concluded the presentation noting that there was good treatment taking place in several areas, and that the goal is to get the heating to reach all areas uniformly and to the temperatures required for treatment.

Gary F. stated that he received correspondence from the previous occupants of Building 225 and that they will not return to this structure.

Dean said that various sampling events were scheduled in March.

SWMU 25/70: Paul Favara indicated that preliminary results from the treatment were very positive with some areas reducing concentrations by 75% to 95%. Hexavalent Chromium

and Chromium showed great results in reductions based on historical and the latest sampling round.

SWMU 196: Paul Favara briefly explained the progress and the different possible outcome scenarios from the ChemOx treatment at this site. He indicated that the treatment area was being expanded by two additional injection wells. Most wells have showed a decrease in concentrations while a few outside the injection footprint had increased.

SWMU 166: Dean reviewed the pilot injection performed and stated that visuals indicated good results. Data should be available in March.

SWMU 39: This site was discussed in detail later in the BCT meeting.

AOC 633: Sampling had not confirmed LNAPL along the pipeline. Team evaluating if a different source could exist such as an old Fire Station nearby or old drums, which were stored in the vicinity. CH2M-Jones will also evaluate if the diesel could be a source from the transformers. Several borings were placed to the saturated zone and more will be placed to further delineate the site.

SWMU 14: Report to go out in March.

SWMU 17: PCB site. Sampling conducted. Jo Cherie to look back for a document she believes is missing regarding this site.

AOC 620: Loading Dock work completed. Demolition work is being coordinated with RDA on Bldg. 68.

AOC 700: Sampling scheduled for March.

SWMU 38: Injection planned in March. Plan to execute dig and haul of PCBs.

AOC 561: Delineation and sampling to be performed in March.

SWMU 518: Waiting analytical results.

AOC 701: Gas/Service Station. Need Update.

SWMU 3: Revise work plan performed.

GIS: New version developed. New version of GIS under review at CH2M. To be forwarded to DHEC soon.

### **Oil Water Separators - AOC 711 through 720**

Louise Palmer conducted a presentation on the path forward to various Oil/Water separators (OWS) at CNC. They are located in Zones G, F, E, and I.

Whenever available, existing samples/ data will be used in the investigation. Several of the OWSs are in use. Dean questioned whether we could obtain NFA on an OWS that is in use. Jerry indicated that an NFA probably couldn't be issued unless the unit was closed or perhaps inactive. Louise provided specific information to each OWS site as to data available. AOCs 712 and 714 are in use. Other sites not in use may have sufficient data for NFA except 713 and 720, which require further investigation. Path forward was discussed regarding grouping of sites. A document with a path forward to be issued in March.

## **Zone J RFI Status**

Charlie Vernoy of Ensafe presented information on the recent Zone J fieldwork effort.

A Power Point presentation outlining the accomplishments to date, current phase of the Zone J RFI, and future strategy was reviewed. The discussion included the investigation of water bodies surrounding the Naval Base, sampling of effluent structures, a proposed Screening Level Ecological Risk Assessment (SLERA) that may follow, and the effects of tidal influence to the stormwater distribution system. This document was to be used at the RAB meeting on March 12<sup>th</sup>. Dann suggested that the presentation be simplified to layman's terms to facilitate the presentation at the RAB meeting.

## **Tuesday, March 12, 2002**

### **Groundwater Monitoring Approach**

Tom reviewed the proposed approach at addressing sites for which recent data are not available. He briefly discussed the background effort conducted the summer of 2000 and scheduled a plan for specific sites. A key goal is to monitor sites with potential for offsite migration. It was also discussed that sites should be sampled at least once a year. Dean stated that many sites were to be addressed in the near future based on the work schedule. A yearly sampling event would be proposed for sites with long term monitoring. CMS will address each site individually.

Paul B. agreed that this is viewed as a temporary effort until all sites have been addressed. Dean W. agreed and proposed a document be developed as the "Interim Sampling Plan for 2002".

JoCherie commented that data should be compared with historical data to determine extent of migration. The data gathered may not be compiled into one report, instead it will be provided as sampling takes place. Several sites that are near a boundary line were discussed during this session including: SWMU 14; SWMU 8 where additional delineation is required; SWMU 9; SWMU 25/70 regarding its plume moving towards the Cooper River. The accuracy of contour lines and the plumes' pathway were discussed briefly; SWMU 38 and 39 and issues relating to MTBE from the Hess property; SWMU 163 and 166; SWMU 196 and its effect on Shipyard Creek; AOC 56, AOC 607; AOC 613/617; Grid well 11; and Zone E Grid well. On Zone E it was agreed that only wells within specific sites would be addressed. It was also agreed that a Sampling Plan would be submitted to DHEC.

### **Pathway Forward for Sites in Zone H RFI Report Addendum**

Tom Beisel conducted a presentation regarding Zone H an RFI report addendum to be submitted in March. Tom discussed various sites including SWMU 196, SWMU 136/663, AOC 666, SWMU 138/667, and SWMU 17 during this presentation. A brief discussion regarding the requirement to investigate the deep zone at SWMU 196 by installing a deep well was conducted by DHEC. It was also noted by Mansour that it was difficult to determine the soil characteristics in this area regarding the clay layers and what was considered shallow vs. deep. Tony stated that the Ensafe RFI report showed that information. Paul Bergstrand also noted some issues with Zone H Grid well 4 and petroleum hit at or near the north side of the barracks. Dean stated that the source might be

from an old UST site not in our contract, but that CH2M-Jones will look to this issue. It was pointed out that the last sample in this area was taken in 1996. It was noted that three reports addressing this area would be issued this month addressing all sites except SWMU 17 and SWMU 196.

### **Approach for Addressing Dioxin RFI Data**

Vijaya conducted a presentation regarding dioxins at the site. She was in search of obtaining a consensus from DHEC as to what dioxin concentration levels are acceptable for NFA. She referred to an EPA memorandum that considered concentration below 1 ug/kg as acceptable levels in soils. She pulled data from existing samples at the various areas of the Base, which indicated all results below this target level. Most samples indicated concentrations below 50 ng/kg. She presented several box plot graphs indicating the results in the various areas from the Base. It was noted that Zone H had the highest concentrations but also had the largest number of samples gathered.

DHEC was to evaluate the data and provide recommendations to acceptable levels.

### **Considerations Related to Groundwater investigations at SWMU 39 – SWMU 2 Area**

Paul Favara conducted a presentation regarding the area encompassed by SWMU 39 and SWMU 2. Slides providing the extent of the plumes in 3-D discussed. The graphics illustrated the PCE, TCE, and DCE contaminants at various concentrations. A brief discussion regarding the path forward was held. It was agreed that CH2M-Jones could proceed with DPT delineation to determine the extent of contamination from SWMU 38 and SWMU 39 towards SWMU 2. The goal was to keep a buffer in order to be able to include the area within SWMU 2 in the Phase III transfer. The team agreed on establishing a North-South line staying on the western boundary of SWMU 2. The sampling would target intermediate and deep zones and sample existing wells 21,3,6, and 18. Two macro bores will be collected with possibly more depending on results.

Paul also discussed that we will be conducting additional investigations south of SWMU 39 towards 42 to determine extend of contamination. There is one hit on North of SWMU 42 and the Team would like to determine if the source could be from SWMU 39. Paul Favara will prepare a revised work plan for this activity.

### **RDA Discussion**

This session consisted primarily on updating Robert Ryan of the RDA as to the status of the environmental work. The Phase III transfer document was discussed as to the status and possible areas to be carved out. The document as submitted does not contain any land use controls. Mr. Ryan stated that the Noisette group would like to get as much property as possible in the North area of the Base.

Other projects at CNC that were discussed briefly at the meeting included Building 68 demolition, the Noisette project, CMMC option to purchase land, Chicora tanks, the Phase II transfer, upgrades to the sewer distribution system, expansion of the Border Patrol complex, and a letter from RDA to Navy regarding Sanitec's brown-field issues.

## **Human Exposure EI**

Rob Harrell made a presentation regarding Human Exposure Environmental Indicators (EI). It provided a background on whether we had enough information, status of assessment/investigations, contaminant media, pathways, exposure significance, and conclusion. Exposures were determined not to be significant and the Human EI was determined to be "yes" to preventing human exposure. Jerry Stamps commented that under slide 9 dealing with surface soil that workers could potentially be exposed but controls were in place such as digging permits, fencing, and permits.

## **Status of Deliverables and Submittal Tracker Update**

Gary Foster provided an overview of the status of the project. He presented a map of the Base showing the various transfer areas. He also provided a slide presentation illustrating the status of sites within each area. Dean indicated that some of the SWMU and AOC areas showed in the map are larger than the actual area affected by contamination. An example is SWMU 42/505, where only an area in the North corner of the unit is presently an issue with regard to contamination, even though the map indicates a large area covering this AOC all the way to Noisette Creek.

Tony indicated that Phase 3B, if provided, will contain deed restrictions.

Gary also presented a slide with NFAs and a slide that reflected sites in which USTs and RCRA sites are adjacent to each other. He also stated that he would forward the latest submittal-tracking document to the members of the BCT.

A quick review and status of documents under review by DHEC and EPA followed.

## **Discussion of Data Validation – Summary Reports**

Herb Kelly provided a teleconference presentation addressing data validation. All parties reviewed an example package during this session. Questions were raised regarding interpretation of tables and attachments and means to make the package more user friendly. It was also suggested that future packages should have the chain of custody attached to the package and that sample extraction dates be provided.

## **Drydock (parking lot) Items, Action Items, April 2002 Agenda**

It was decided that the next meeting would be held in Columbia.

It was also decided that a letter should be issued to the RAB listing what documents were under review by the regulators and stating that their availability at the library. At the RAB meeting it should be mentioned in the future if the public would be interested in reviewing specific documents. Dean suggested that no draft documents should be made available to the public until DHEC comments were received and addressed.

It was noted that DHEC was implementing changes to the well regulations and that a copy of this document would be provided in the next meeting.

## Wednesday, March 13, 2002

### RAB Meeting Debrief

It was noted the lack of public participation at the meeting. Only RAB board members were in attendance. It was noted that presenters should make a point to turn the meeting positive by showing accomplishments to date. Examples may be employment figures at the Base and areas turned to the public sector.

### Project Managers Meeting

Several items were discussed during this session:

- CH2M-Jones requested that early comment from Phase III transfer be provided so that the April deadline is met.
- Brief discussion on addressing closure of OWS in use and means to determine NFA status if sufficient information from RFI was provided.
- Discussion regarding attendance by key players at the meeting to facilitate results an expedite process. Agenda should also be more specific in order to insure that key players are available.

### Action Items

- DHEC to research the status of SWMU 17, PCB site. Jo Cherie to look back for a document she believes in missing regarding this site. Tom Beisel to assist.
- CH2M-Jones to provide DHEC an update of AOC 701 (Gas/Service Station).
- CH2M-Jones to provide updated GIS to DHEC. New version is presently being developed and is under review at CH2M.
- CH2M-Jones to investigate request from NOAA to abandon wells near Coastal Service Center. RTC-4 is planning an expansion of this facility to the South. It appears that there are 2 wells in this location. Also one additional well is located near an O/W separator at or near this location.
- Navy to evaluate ways to better Public Communication from the project. Perform a better job at informing public of environmental advances and progress at the site and inform as to the availability of documents. Tony Hunt to document success of project to date.
- DHEC to provide a copy of the upcoming changes to SCHEC well regulations.
- CH2M to provide an updated submittal Tracking Report to BCT members.
- DHEC to provide comments from Part B revision.
- Navy is to provide Remount Road Improvement document from SCDOT.

**List of Attendees:**

U.S. Navy: Rob Harrell, Tony Hunt

USEPA: Dann Spariosu

SCDHEC: Jerry Stamps, Paul Bergstrand, Susan Peterson, Jo Cherie Overcash, Gill Rennhack, Joe Bowers, and Mansour Malik.

CH2M-Jones: Gary Foster, Dean Williamson, Vijaya Mylavarapu, Paul Favara, Tom Beisel, Louis Palmer, Richard Garcia and Herb Kelly (by phone).

EnSafe: Steve Parker; Charlie Vernoy (Tuesday only).

Gannett Fleming: Cheryl Nybro, Tim Frederick.