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NOTES FROM BASE REALIGNMENT AND CLOSURE TEAM MEETING DATED 13 AUGUST
2001 CNC CHARLESTON SC
8/15/2001
CH2MHILL

Notes from August 2001 BCT Meeting Columbia, SC.

PREPARED FOR: Charleston Naval Complex BCT
PREPARED BY: Sam Naik
DATE: August 15, 2000

The August 2001 BCT Meeting was held at the SCDHEC Offices on Farrow Road, Columbia, SC. The meeting began at 1:30 P.M. on August 13 and concluded at 3:30 P.M. on August 14, 2001.

Tuesday, August 13, 2001

Update on Field Activities

The meeting began with introductions of team members and action item review. The updated action item list is attached. Tom Beisel and Dean Williamson provided an update on the status of field activities at various sites.

Paul Bergstrand informed the team that he received a call from Mr. Lou Mintz of the CNC Redevelopment Authority (RDA) inquiring about the status of remediation at AOC 607 (adjacent to Building 225). Paul indicated that Lou expressed his anxiousness in relocating the tenants of Building 225 from the Step Ahead program, back into the building. The team discussed the issue of communication with the RDA, in order to ensure proper dissemination of information to the RDA.

Parking Lot Items

I-26 Remount Road Interchange Construction Plans

Tony Hunt provided an update on the I-26 construction effort at the Remount Road interchange. He mentioned that Mark Walker of the South Carolina Department of Transportation (SCDOT) visited Tony's office and inquired about information on site investigations at the Zone K - CNC Annex (Naval Annex). Mark was shown the documents prepared by EnSafe, Inc. (EnSafe) on the RFI and the offsite contamination study. SCDOT will file a Freedom of Information Act (FOIA) request for copies of the relevant documents. Tony inquired if the RFI Report Addendum for Zone K had been finalized by CH2M-Jones. Dean replied that it is currently in the draft stage, and the document will be prepared for submittal. Tony added that SCDOT is interested in learning more about the contamination in Zone K.

Sani-Tech Excavations on Landfill

Tony also provided an update to the team on excavations conducted by Sani-Tech Environmental, Inc. (Sani-Tech) at Building 672 off Bainbridge Avenue in Zone H, CNC. He related to the team that Sani-Tech intended to construct a wastewater treatment plant

(WWTP) adjacent to Building 672. This plant was intended to separate waste oil from the wastewater, and the wastewater was intended to be discharged into the sanitary sewer system. According to the information Tony received, Sani-Tech submitted a request for a pre-treatment permit to SCDHEC and received acknowledgement of the pre-treatment permit from SCDHEC, but the plans for the construction of the WWTP were required to be reviewed SCDHEC. Sani-Tech misconstrued the acknowledgement of the pre-treatment permit as approval to commence WWTP construction activities and started excavations near Building 672. Building 672 is on top of the abandoned landfill (SWMU 9 in Zone H) at CNC. Sani-Tech conducted excavation into the soil cover and landfill contents in order to prepare the subgrade for foundations to support tanks for the WWTP. The excavations uncovered mostly construction debris, and some waste material such as paper, etc. The RDA discovered the excavations and stopped the excavation activities. Currently, the Navy has issued a cease-and-desist order to prevent further intrusive activities at this site. The Navy discovered that Sani-Tech had no dig permit prior to conducting the excavations.

A draft letter has been prepared by the Navy in response to these excavation activities. Tony indicated that in the Navy's view, Sani-Tech committed violations of the provisions of the FOSL as well as the lease restrictions. The FOSL for Building 672 does not allow use other than for administrative purposes. The Navy expects Sani-Tech to request through the RDA that the FOSL be revised to allow the WWTP operations which the BCT will necessarily review.

Paul Bergstrand inquired as to what happened to the landfill waste encountered during the excavation. Tony replied that the surface soil cover had been excavated and pushed to the side of the excavations, and that the landfill waste had not been removed from the excavations. He said that it is the Navy's belief that Sani-Tech intended to request the Navy to remove and dispose of the landfill waste. The Navy intends to direct Sani-Tech to push back the landfill cover material removed so far. Tony indicated that Sani-Tech had been advised that hazwoper-trained personnel are required to close the excavation.

Partnering Discussion

Paul Plotczyk led a discussion on partnering and reviewed the memorandum on the follow-up to the Initial Partnering Session held on July 10, 2001 which was attended by several team members. Paul's discussions touched on the concept of partnering, a review of the report of findings, partnering agreement elements, and a review of the draft *Operating Guidelines for CNC BRAC Team* which resulted from the Initial Partnering Session, and concluded with a review of core team member list for the CNC BCT.

Paul Bergstrand informed the team that the SCDHEC email addresses no longer included COLUMB34 as part of the email address. Gary Foster will incorporate this change in the revised team list to be distributed shortly.

Wednesday, August 14, 2001

The meeting began at 0800 AM. The first session included a presentation by Gary and Dean on the April 2002 property transfer concept.

April 2002 Property Transfer Concept

Gary and Dean made a presentation on the areas of CNC that could be readied for property transfer within the various zones by April 2002. The presentation included a display of maps of the sites and zones within CNC, to depict the sites that are near closure and the sites that need additional corrective action before they would be ready for closure, and subsequent property transfer before April 2002. Dean described the environmental issues related to some of the sites awaiting corrective actions and closure. A table showing the list of sites and possible documents that will be produced to support corrective action and closure in each area being readied for property transfer, was also provided to the team. This list was also emailed to the team by Gary on 8/15/01, and shows a total of 94 documents to be submitted by CH2M-Jones for SCDHEC review and approval before April 2002. Gary explained that these documents pertain to the "priority sites" being considered for closure and property transfer. These priority sites include deliverables for sites where transfer is expected by April 2002 as well as deliverables for other sites that need to remain a "priority" based on the anticipated duration for closure operations and future transfer.

Jamelle Ellis inquired if the 94 documents shown on the list include those already in-house at SCDHEC or only those forthcoming. Gary replied that there may be some on the list that are already in-house at SCDHEC.

David indicated that the number of documents included in the list translates to roughly 4.5 documents per SCDHEC reviewer per month. He indicated that this was probably a difficult goal to achieve with the available resources at SCDHEC, using the standard project approach that DHEC uses. He said it may be possible for SCDHEC to determine what types of key decisions have to be made in order to streamline the review and approval process, while developing strategies in consultation with upper management at SCDHEC to combine or reduce the number of intermediate decision points during the document review and approval process. He also suggested that an evaluation may need to be made to see which of the sites will be the most important ones to complete and which of the sites will have the least impact to the property transfer process if left out due to paucity of resources to review and approve documents. He clarified that SCDHEC is not saying that the schedule will not be met, but that it was an uphill task and looks challenging, given the current level of resources available to SCDHEC, and felt that an ambitious goal needed to be set with an aggressive pace of document review.

Tony estimated that the areas shown in the presentation covered approximately two-thirds of the CNC base.

Paul Bergstrand asked which of the areas shown in the presentation would get the highest priority for property transfer. Tony replied saying that the areas in Zones A, B, C, D and some areas in Zone E near the dry-docks would be the more important ones now, from the stakeholders' perspective. He added that this priority could change with time and that the Navy will keep SCDHEC informed if the priorities change.

David acknowledged that the Navy and CH2M-Jones had put a lot of effort into coming up with the April 2002 property transfer concept, and that SCDHEC needed to understand and would seek to implement this from their end, to the best of their abilities.

Presentation on Arsenic in Groundwater

Dean made a presentation on the geochemistry behind the behavior of arsenic in subsurface soil and groundwater, and its implications for the CNC RCRA corrective action process. A copy of this presentation is attached. The presentation involved a review of the basic concepts of arsenic geochemistry, factors affecting its speciation, behavior and mobility in soil/groundwater systems, dominant processes affecting arsenic, iron and manganese reduction and release into groundwater, and the interrelationships between these metals.

Drawing from material presented in textbooks written by leading researchers, Dean showed that even low concentrations of arsenic in the subsurface soil (as little as 5 milligrams per kilogram) could result in arsenic concentrations in groundwater that would exceed the MCL of 50 µg/L. Considering that the background concentrations of arsenic in soils at CNC are considerably higher than 5 mg/kg, this presentation demonstrated that the presence of arsenic in groundwater at CNC (often above the MCL) could be attributable to background levels present in the soils. Dean presented information that showed that a release (through natural processes) of an estimated 0.28% of the soil arsenic is enough to cause an exceedance of the arsenic MCL in groundwater. Dean indicated that the information presented allows the conclusion that the presence of total organic carbon (TOC) in CNC soils along with the presence of elevated dissolved iron and manganese in shallow groundwater across the base, indicate conditions favorable for iron, manganese and arsenic reductions, and that such reduction is occurring naturally. These reduction processes allow the natural release of arsenic from soil even in the absence of a discrete arsenic "source area" or regulated, waste-handling or disposal activities.

Dean used the conditions at two example sites, SWMU 120 in Zone G and AOC 709(F) in Zone F where arsenic concentrations in the shallow groundwater illustrate the naturally-occurring release of arsenic from soil via a reduction process. These sites also exhibit high concentrations of iron in the groundwater, suggesting that iron reduction is also occurring. Background grid wells in the Zone G area also indicate similar levels of iron and arsenic, suggesting that these conditions are widespread at the CNC.

He suggested that for SWMUs and AOCs which have elevated arsenic concentrations in groundwater, but where no arsenic source area is found yet, an evaluation of dissolved iron and manganese concentrations or other geochemical parameters should be taken into consideration prior to requiring further investigation or corrective measures under RCRA.

Paul Bergstrand added that the presentation furthers the understanding on the team on the behavior of arsenic in groundwater. He asked how the Navy proposes to incorporate this information into the reports. Dean felt that this information could be presented as a white paper or a technical memorandum to the team and the memo could be referred to in the reports.

Mansour asked how we would address sites where arsenic is found in groundwater above the MCL. Paul Bergstrand suggested that we can look at the background concentrations at the site and see if the arsenic is naturally occurring in soil and groundwater at concentrations high enough to cause an exceedance of the MCL.

Joe Bowers suggested looking at the technical evidence and making a technical decision.

David agreed that we could capture the information presented by Dean in a technical memorandum and refer to this memo to justify the rationale for decision-making. He also

suggested that this technical memorandum should be entered into the administrative record, and the information would be applicable to the entire CNC base.

Susan Byrd suggested that the case for arsenic in groundwater should be made on a site-specific level as well, examining and presenting the conditions at each site to support the argument of naturally-occurring arsenic in groundwater. Dean added that in most cases, the presence of iron in groundwater along with arsenic is a good site-specific indicator. Joe Bowers added that the team would need to buy-off on this approach.

The team agreed that Dean should proceed in drafting a memorandum to summarize the information.

Zone J Point-of-Entry Effluent Investigations

Charlie Vernoy and Julie Shaffer of EnSafe, Inc. presented the Zone J Point-of-Entry Effluent Sampling Work Plan. Charlie and Julie presented a background of the Zone J RFI effort to date, and the specific approach to delineating excursion zones, collection of data on NPDES discharge into the surface waters around CNC, work plan objectives, sampling strategies and the approaches to the determination of reference concentrations. A copy of the handout summarizing the presentation by Charlie and Julie is attached.

Charlie indicated that EnSafe expects to submit the sampling work plan by the first week of September 2001.

Mansour inquired if Clouter Island was included as part of this work plan. Charlie indicated that it was currently not included since there is no extensive sewer system existing at Clouter Island.

Susan Byrd inquired if comments from Sharon Thoms (EPA risk assessor) on this approach were incorporated. Charlie indicated that her comments were mostly dealing with screening criteria for ecological risk, and that they would be addressed. Susan Byrd suggested that for each outfall being considered, a description of the land use of areas that contribute to its drainage basin, as well as the drainage basin characteristics be provided in the work plan.

EGIS – User Concerns

SCDHEC reviewers using the EGIS package had some questions on the use of the screening criteria available in the EGIS database. Specifically, the concern was on the absence of MCL values for some compounds which were noticed by SCDHEC users of the EGIS. Tom will have the database checked and will evaluate updating the screening criteria table in the EGIS for the next release of the EGIS.

Tom offered to field questions from SCDHEC users while they are using the system, in order to help new users understand its features and utilities better.

Dean suggested that the soil screening criteria presently loaded into the EGIS database should not be relied upon for decision-making since some of the criteria have evolved differently in the last few months (ex., SSLs, BEQ screening criteria, etc.), and that the technical memoranda and other hard copy tables are being used by the CH2M-Jones team while screening site constituents.

Paul Bergstrand inquired if the EGIS is still a good tool to use for decision-making “at the table”. Dean replied that it was still a good tool to support decision-making, but that the team would need to look at using a variety of tools within the GIS in order for this to be effective.

Miscellaneous Issues

Tier I/Tier II Meeting

The team discussed the upcoming Tier I/ Tier II meeting. Dean requested clarification on what might be presented for case histories at this meeting. Stacey French suggested that good case histories that members from BCTs of other bases would be interested in are ones such as AOC 607, which includes a variety of issues such as indoor air monitoring, public relations issues, tenancy issues, etc., which this team has tackled well. David added that the Tier I team could be asked if they had identified any impediments to progress on this project that the Tier II team could work with them on. He felt that the CNC project presents a variety of issues to be tackled.

Deliverables Status

The team discussed the status of various deliverables that are in-house at SCDHEC for review, or proposed to be submitted for review by CH2M-Jones in the near future. The team also discussed the issue of how many reports can be provided to the EPA’s subcontractor for review. Dann Spariosu will check with his staff at EPA and provide an update to the team on the EPA subcontractors’ resource availability.

The next BCT meeting facilitator is Paul Bergstrand. The team identified some potential topics for the next meeting. The AOC 607 corrective action, Hess tank farm and the Community Relations Plan, were among the potential topics identified for the agenda at the next RAB meeting.:

List of Attendees:

U.S. Navy: Tony Hunt, Rob Harrell

USEPA: Dann Spariosu

BLWM-SCDHEC: David Scaturo, Jack Gelting, Joe Bowers, Paul Bergstrand, Stacey French, Susan Peterson, Mansour Malik, Jo Cherie Overcash, Jamelle Ellis. Susan Byrd joined the meeting on Tuesday, August 14.

CH2M-Jones: Gary Foster, Dean Williamson, Vijaya Mylavarapu, Tom Beisel, Sam Naik, Jed Heames. Trip Snelson joined the meeting on Tuesday, August 14.

EnSafe: Steve Parker; Charlie Vernoy and Julie Shaffer joined the meeting on Tuesday, August 14.

Paul Plotczyk of Work Systems Associates facilitated the discussions on Monday, August 13.

Notes from September 2001 BCT Meeting Charleston Naval Complex, North Columbia, SC.

PREPARED FOR: Charleston Naval Complex BCT
PREPARED BY: Kris Garcia
DATE: September 13, 2001

The September 2001 BCT Meeting was held at the Charleston Naval Complex in North Charleston, South Carolina. The meeting began at 1315 on September 10, 2001, and concluded at 1300 on Tuesday September 11, 2001.

The meeting began with introductions of team members, agenda review and action item review. The updated action item list is attached.

Monday September 11, 2001

Update on Field Activities

Paul Favara provided an update on the status of field activities at various sites.

SWMU 166. Paul F. made a presentation regarding selection of target treatment areas for SWMU 166. Data were screened to identify under two scenarios to select the most appropriate screening levels: 1) locations with TCE concentrations > 1,000 ug/L or ECD > 1,000 uV, and 2) locations with TCE concentrations > 2,000 ug/L or ECD > 2,000 uV. Results were comparable under both screening scenarios, with a slightly higher area incorporated under the 1,000 ug/L-1,000 uV scenario (~15% more area). The dissolved phase plume has been bounded.

CH2M-Jones proposed using the 1,000 ug/L-1,000 uV delineation scenario to identify target treatment areas. It is estimated that about 37 injection wells will be installed as part of the in-situ chemical oxidation (ISCO) delivery system, with 3-4 wells in the larger areas and 1 well in some of the smaller areas. The expected treatment radius is up to approximately 20 feet. Wells will be mostly PVC constructions, with some mild steel wells where necessary.

Post treatment monitoring will be performed, and the proposed approach will be documented in the IM Work Plan that will be submitted to SCDHEC. Path forward: Request for Bids issued by 9/21/2001; 1 week for bidder responses; 2 weeks for review and contract award; 2 weeks for work plan development.

SWMU 196. Paul F. made a presentation of plans to use ISCO at SWMU 196. The presentation began with a review of the properties of hydrogen peroxide and the TCE and PCE breakdown sequences. CH2M-Jones is proposing a two-phase treatment process. The work plan has been submitted to SCDHEC and well installations are scheduled to begin the week of October 8, 2001. The first phase (2A) will be implemented the week of October 22, 2001 and post-treatment monitoring will begin the week of October 29. The second phase

(2B) is anticipated to be conducted in the March 2002 timeframe, with full completion by May or June 2002.

SWMU 25/SWMU 70. CH2M-Jones is proposing the use of the Fer-Ox process, which injects zero-valent iron (ZVI) powder into the subsurface environment. The ZVI will reduce hexavalent chromium to trivalent chromium. The ZVI powder creates an in-situ reactive zone. This process was selected because of its ability to provide treatment beneath the buildings, without disturbing the structures. ARS Technology has been identified as vendor for this patented technology.

There are two injector options: hydraulic fracturing and pumping and 2) liquid atomization. The process will include an estimated 20 injection points. A meeting will be held next week to work with the existing tenants due to the potential for localized ground heaving. It was noted that the direction of the heave can be controlled as part of the injection process. Areas to be addressed will be selected based on exceedences of a 100 ug/L chromium concentration and the powders will be injected directly into the source area(s).

Adobe Acrobat and NetMeeting Short Course

Dann Spariosu noted that technology exists that may help expedite the document review and revision processes. In order to allow the BCT to evaluate the applicability of this technology, Dann made arrangements for two of his IS staff to make their presentation via NetMeeting. The BCT would like to extend its thanks to Richard and Brenda for their presentation and enthusiasm for these valuable tools.

Sites Being Evaluated

Dean Williamson made a presentation of sites currently being evaluated.

AOC 559/AOC 560/AOC 561. The RFI review for the Central Power Station, Disinfectant and Substation is nearing completion. Findings include identification of a location where PAH concentrations are elevated (330 mg/kg). CH2M-Jones developed a plan for a visual inspection that was completed on September 7, 2001. The inspection identified a black "coke-like" material. As a result, CH2M-Jones is currently preparing an IM Work Plan to further assess the extent of this material, and for its subsequent removal.

There are also questions regarding a monitoring well at the site, which previously indicated the presence of chlorobenzene. The well has become nearly dry, possible as a result of a leak in nearby sewer pipes. This situation needs further evaluation.

AOC 681. The RFI review for the Blast Booth and surrounding areas identified two localized exceedences: One in the surface soil and one in the subsurface soil. Both exceeded their respective BEQ screening criteria. Because this area is paved with asphalt, it is unknown whether these exceedences represent actual environmental conditions or whether there was some residual effects associated with drilling through the overlying asphalt cover. CH2M-Jones proposes to conduct a visual inspection similar to that performed at AOC 559/AOC 560/AOC 561 to determine whether a source of the elevated PAHs is present **SMWU 42.** Additional delineation will be required at this unit due to elevated arsenic concentrations found in a soil sample collected from the southeastern corner of the unit. This area has a very large, old tree that CH2M-Jones would like to save. As a result, the soil in the vicinity

of the samples will be sampled to confirm that the arsenic detections reflect actual conditions before any action is taken that could affect the health or existence of the tree.

SMWU 14/SMWU 15/AOC 684. This group of units includes an old skeet shooting range. Review of the RFI data found that contamination was very widely scattered and spotty, and typically limited to the surficial soils. CH2M-Jones sampled several hot spots and found that the leading potential source of these exceedences may be the old skeet clay pigeons, which were composed of materials consistent with the COPCs from the units. CH2M-Jones is still evaluating approaches to address these conditions. The leading alternative currently under consideration is scraping the top 6 inches of the surface soils. However, CH2M-Jones will conduct additional vertical profiling before making a final decision. .

AOC 702 and AOC 703. These two units consist of surficial paint stains out on Piers D and F. However, the piers are constructed on pylons and jut out over the Cooper River. As a result, there are no soils or groundwater to sample at these sites. Instead, these units should properly be addressed as part of the Zone J investigations. CH2M-Jones submitted a letter request to SCDHEC last week to request that these units be deleted from the Zone E scope of work. A site visit was originally planned for Wednesday September 12, but the was cancelled on Tuesday September 11 following the terrorist attacks.

Tuesday September 12, 2001

The Tuesday meeting convened at 8:15 a.m.

Presentation on AOC 620/SWMU 36 IM Work Plan for Building 68

Louise Palmer presented an overview of the IM activities being planned for Building 68 (AOC 620 and SWMU 36). This is a parcel of land that the RDA is interested in leasing, as part of the Dry Docks 3 and 4 lease. The other units associated with the lease plan include four units proposed for NFA in an RFI Report Addendum (AOC 602, AOC 604 and SWMU 106/AOC 603) and four units that are being prepared for a IM prior to completion of the RFI Report Addendum (SWMU 5/SMWU 18/AOC 605/AOC 621).

Louise provided a background summary of the units. It was noted that Building 68 is empty and stripped except for several old acid storage tanks, which have been decommissioned. The sites are located in an area zoned as Marine Industrial (M-2). Two COPCs have been identified for these units: PCBs and lead. Based on the review of the existing and newly gathered RFI data, it was concluded that PCBs at this site do not pose a risk to industrial workers.

Additional sampling was also performed for further delineation of lead and it appears that delineation is essentially complete based on a screening criteria of 400 mg/kg. CH2M-Jones has developed a draft lead target clean up value of 1,880 mg/kg as being protective of an industrial worker at this site. The proposed target clean-up level was developed using EPA's Adult Lead Model (ALM) (EPA, August 2001).

Remedial actions will be necessary at two locations: Outside the acid tank room and in the wash basin area of Building 68. CH2M-Jones is proposing a three-phase interim measure:

- Pre-excavation sampling (both interior and exterior);

- Excavation of lead-contaminated soil in the wash basin area and in front of Building 68;
- Excavation of soil, if necessary, beneath the acid room following RDA demolition of the structure .

Pre-excavation sampling will be performed inside and outside the acid tank room, beneath the wash basins, and outside the building beneath the loading dock. The data obtained from the pre-excavation sampling will be used for delineation of the target excavation footprint to address exceedences of the lead clean-up value .

Excavation beneath the acid room will be conducted following demolition only if the pre-excavation sampling indicates that lead levels in soil exceed the target clean-up level. Robert Ryan confirmed that the RDA expects a new building to be constructed on the site.

Following discussion of the proposed sampling locations, the BCT concurred that two additional sample locations should be added beneath the loading dock on either side of sample location F620SB018.

CH2M-Jones will submit the portion of the IM Work Plan dealing with the pre-excavation sampling events to SCDHEC for review by Friday September 21. It was agreed that CH2M-Jones would conduct the pre-excavation sampling, but not proceed with excavation activities until SCDHEC has a chance to review the proposed lead clean-up level. To facilitate approval, CH2M-Jones will submit a technical memorandum documenting the development of the proposed lead clean-up value to SCDHEC for review by Friday September 21. In addition, Vijaya Mylavarapu will speak with Susan Byrd (SCDHEC) and Dann Spiriosu will speak with Ted Simon, the EPA Risk Assessor regarding the acceptability/applicability of the EPA's ALM.

Discussion on RDA Issues

Robert Ryan joined the meeting for briefing and to discuss various issues of interest to the RDA.

Dry Docks 3 & 4. Dean gave an update on each of the units affected. Specifically:

- An RFI Report Addendum has been submitted to SCDHEC for review and approval for No Further Action at AOC 602, AOC 604 and SMWU 106/AOC 603
- An IM Work Plan is being developed for SMWU 5/SMWU 18/AOC 605/AOC 621 to address residual lead contamination. It should be submitted to SCDHEC for review and approval during the month of September.
- An IM Work Plan is being developed for Building 68 (AOC 620/SMWU 36) to address residual lead contamination. This IM Work Plan will be submitted to SCDHEC for review and approval no later than Friday September 21.

CIP Area. Robert Ryan provided an update on the plans for the Charleston International Ports (CIP) request for permission to construct three new warehouses at a property located on the northern side of the landfill (SWMU 9). There are three existing structures that eventually the CIP will want to demolish, but they are currently concerned with construction the first warehouse which will be located on Hobson Ave. at Halsey, across from Pier Q. Based on the preliminary drawings that had been provided to CH2M-Jones, it

appears that the siting of the warehouse would be acceptable and would not likely fall within the footprint of the landfill, but that a portion of the parking area would be impacted. There are also some auxiliary issues associated with SWMU 8 (Sludge Oil Pit).

The CIP is very interested in getting some cargo moving in and out of the area and was hoping that the area for the first warehouse could be released for construction. The BCT concurred that no decision could be made until the CIP, through the RDA and Navy, submitted engineering/construction drawings and a formal request. Robert will make sure that the plans and request are submitted to the Navy by Friday, September 14.

Department of Education. The Department of Education has returned the Chicora Tank Farm to the Navy. It is possible that this property may be turned over to the RDA. The RDA had a meeting scheduled for 12:00 p.m. (Tuesday September 11) to discuss the condition of the property and whether to accept ownership. The RDA needed a Navy representative familiar with the Chicora Tank Farm to attend the meeting and provide a technical briefing on the conditions at the site. The Navy agreed to provide the support requested. Paul Burgstrand confirmed that the Chicora Tank Farm has been transferred from the SCDHEC Waste Management Program to the SCDHEC Tanks program

Sanitech. The RDA has provided engineering drawings to the Navy. It appears that Sanitech contractors did dig into the footprint of the landfill (SMWU 9) and that work was stopped as a result. According to Paul Burgstrand, the hole is still open. SCDHEC agreed not to act on the incident until a formal response come from Sanitech, through the Navy, regarding what they proposed to do with the site. Tony Hunt will prepare the letter from the Navy to the RDA, timeframe to be determined, in time to discuss the issue at the next BCT meeting in October.

Proposed Activities

Proposed activities were discussed for several sites.

AOC 607. Dean provided a summary of the progress being made with of the construction of the *in situ* heating system at AOC 607. The perimeter soil-gas and groundwater monitoring work plan is being finalized for submittal to SCDHEC for review and approval. The perimeter monitoring system is nearly complete for the vacuum monitoring and soil gas sampling networks. Both systems will be monitored by field screening methods and analytical sampling.

Tony Hunt will be contacting the principal of the adjacent high school, to alert him that work will be starting in the area.

Zone E Uninvestigated Units. Kris Garcia provided an overview of the proposed sampling plans that are being submitted to SCDHEC to address the nature and extent at the following six previously uninvestigated units in Zone E:

SWMU 181 - Satellite Accumulation Area, Metal Trades
SWMU 188 - Satellite Accumulation Area, Paint Waste
AOC 537 - Substation, Building 342
AOC 575 Substation, Building 454
AOC 701 - McMillan Avenue Gas Station

AOC 704 - Paint Accumulation, Building 301B

The RFI sampling plan for these units will be submitted to SCDHEC within the next few days, following the September BCT meeting. Also, there were some concerns regarding whether there was actually any need investigate SMWU 181 and SWMU 188 given the physical conditions at the site. It was agreed that the SCDHEC reviewers would evaluate whether there is a need to conduct an investigation at some of these sites as part of the work plan review.

SWMU 196 IM Work Plan. Paul Favara provided an update on the activities of SMWU 196. The drilling is scheduled begin the week of October 8, but CH2M-Jones has not received the IM Work Plan approval from SCDHEC. David Scaturo committed to having comments from SCDHEC reviewers by the end of next week (September 21).

Paul also noted that CH2M-Jones would be coming back to add some additional wells to the drilling permit that had already been issued by SCDHEC.

Site Visits

The meeting agenda was ahead of schedule, so the full BCT went to AOC 607 to see the progress to date on the installation of the thermal heating system. Afterwards, the meet attendees split into groups for visits to other units of current interest throughout the installation.

Debriefing on EPA's Course on Establishing Background Criteria

Vijaya Mylavaram, along with Tom Beisel and Jo Cherie Overcash, related some of the highlights from the recent EPA training course. Vijaya noted that, under the current guidance, EPA has indicated that point estimate calculations of risk are no longer considered a favored approach. Using the range of background sample results is gaining increasing favor. One of the main lessons was that project managers should identify the background definition for each site individually, taking into consideration the various nuances of each site. Vijaya also noted that the new EPA guidance addresses establishing background values in soils only. Separate guidance documents on sediments and groundwater will be issued over the next few months.

Some of the other highlights from the course:

- Background ranges should be based on absolute measurements
- Background cannot be effectively established on a limited number (2-3) of samples
- Correlation plots may be effective tools

Submittal Tracking

The submittal tracking discussion was held offline between Gary Foster and David Scaturo.

Next Meeting

The next meeting of the BCT is scheduled to be held on October 8th and 9th. However, the 8th is Columbus Day, a federal holiday. Alternative dates will be discussed during an upcoming weekly conference call.

Unaddressed Issues

Due to immediate effects of the terrorist attacks, the September RAB meeting was cancelled. In addition, several agenda items were not addressed and subsequent site tours were cancelled. The following agenda items were not addressed:

- Zone A Discussion - Alex Sagebien, Amerada Hess, was unable to enter the installation following the heightened security alert.
- RAB Meeting preparation and recap
- Project managers meeting

Action Items:

- CH2M-Jones will submit the Building 68 Phase I IM (sampling) Work Plan and a technical memorandum documenting the development of the proposed 1,880 mg/kg lead clean-up value using the ALM to SCDHEC and EPA by Friday September 21
- Vijaya Mylavarapu will speak with Susan Byrd (SCDHEC) regarding the acceptability/applicability of the EPA's ALM
- Dann will speak with Ted Simon, the EPA Risk Assessor regarding the acceptability/applicability of the EPA's ALM
- Robert Ryan will submit the CIP construction plans and a formal request for release of the property associated with the proposed CIP warehouse
- Tony Hunt will prepare a draft letter from the Navy to the RDA responding to the landfill breach by Sanitech.
- Tony Hunt will contact the principal of the high school prior to commencement of thermal treatment at AOC 607.
- SCDHEC Reviewers will provide comments on the SWMU 196 IM Work Plan by Friday September 21
- Paul Favara will submit a letter to SCDHEC requesting an amendment to the AOC 196 drilling permit to include some additional well point locations.
- Management Team will address the schedule for the October BCT meeting.

List of Attendees:

U.S. Navy: Rob Harrell, Tom Fressili (Tuesday morning, only)

USEPA: Dann Spariosu

BLWM-SCDHEC: David Scaturo, Joe Bowers, Paul Bergstrand, Susan Peterson, Jo Cherie Overcash.

CH2M-Jones: Gary Foster, Dean Williamson, Vijaya Mylavarapu, Tom Beisel, Sam Naik, Jed Heames, Paul Favara, Kris Garcia, Louise Palmer, Casey Hudson.

EnSafe: Charlie Vernoy

RDA: Robert Ryan (Tuesday morning, only)