# NOTES FROM BASE REALIGNMENT AND CLOSURE TEAM MEETING DATED 12 MARCH 2001 CNC CHARLESTON SC

3/29/2001

CH2MHILL

# Notes from March BCT Meeting

PREPARED FOR: Charleston Naval Complex BCT

PREPARED BY: Sam Naik

DATE: March 29, 2001

The March BCT Meeting started at 1:30 PM on Monday, March 12, 2001 and ended at 4:30 PM on Tuesday, March 13, 2001.

The agenda for the meeting is attached to this document.

## Monday, March 12, 2001

### Action Items Review

A review of the action item list from the previous BCT meeting was reviewed and updated. Some action items were added to this list during the course of the BCT meeting. The updated action item list is attached.

### General Discussion on COPC Screening and Criteria

Dean Williamson and Vijaya Mylavarapu presented the background and general approach of the COPC screening process. This was an effort to determine if there was common understanding within the team on how this screening process is being exercised on this project. Team members had input on the sampling plan for the initial RFIs, the determination of site contaminants based on analytical results from sampling, past site uses and waste processes, etc. Todd Haverkost clarified that the sampling plan was directed at possible sources of contaminants.

A discussion was conducted on the applicability of statutory screening goals such as MCLs, RBCs, generally accepted standards such as 400 mg/kg goal for lead in soils, 1 µg/kg goal for TEQs, and proposed revisions to the arsenic MCL. Dann Spariosu suggested that COPCs should be considered on a case-by-case basis and to consider generally accepted standards during the delineation stage in order to streamline the screening process. Early decisions could be made based on acceptable goals (e.g., industrial level cleanup goals for Zone E) or background values rather than strictly looking at RBCs.

A discussion followed on background concentrations and their use in evaluating COPCs in comparison with RBCs and SSLs. Dean provided the example of arsenic in soils (e.g., at Zone H) where the background concentrations are significantly higher than the RBCs, and we could be pursuing background arsenic concentrations far away from some sites. Mihir suggested that it would help SCDHEC in the review process if information was provided showing where the range of site contaminant concentrations fall within the range of background concentrations for the particular zone, in addition to frequency of detections.

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The team discussed the varying numbers of background samples collected from zone to zone. Mihir suggested that we should look across zone boundaries and within a certain radius, if a site is located close to the boundary between two zones.

The question of cumulative impacts of toxic contaminants that might cause the sum of the hazard indices to exceed 1 was raised. Vijaya explained the process of evaluating cumulative side effects when there are multiple compounds. She clarified that as long as the sum of individual hazard quotients for a particular target organ does not exceed a value of 1.0, then they are not considered COCs. She also indicated that the probability of having multiple contaminants having the same target organ is very small, particularly when dealing with the types of parameters found at the CNC and at most industrial and DOD facilities.

Vijaya clarified that the term COPC refers to a chemical when it is being investigated and the term COC is applied to the chemical when its concentrations are considered to pose an unacceptable risk to human health or ecological risk. The ultimate consideration is the degree of risk based on the existence of a valid pathway for exposure by human or ecological receptors.

A copy of the Powerpoint® presentation made for this session is attached to this memo.

## Project Manager's Breakout Session

### Discussion on Pathway Forward for Sites

Dean presented an explanation of the process being followed within CH2M-Jones to evaluate the completeness of RFI work, and the steps following this evaluation. He presented the information in a tabular form and explained that after the initial screening of chemicals against screening criteria, the list of COPCs in surface soils, subsurface soils and groundwater would be evaluated to see if they presented a pathway for exposure. The completeness of the existing RFIs would be assessed to see if there were data gaps. Following an evaluation of the risk assessment conducted in the RFIs, the list of COCs in the RFI would be evaluated. Based on the list of valid COCs, a remediation approach will be proposed.

Dean said that in some instances, conducting an Interim Measure to either conduct additional investigation or removal (or treatment) of contamination could fast-track the pathway forward from some sites, without necessarily having to go through an elaborate evaluation under a formal CMS process before performing remediation. Paul Bergstrand and Mihir Mehta offered to help evaluate this process to determine a definitive pathway forward for sites early on in the process, to expedite the remediation and closure of sites.

Tony Hunt asked if information could be added to Dean's table that would show if there were tenants that would be impacted by field activities at a site. He clarified that the question would be on physical impact (e.g., temporarily relocating tenants, etc.). Gary Foster said that it was reasonable to predict such impact on a quarterly basis, by looking at the project schedule.

## Other Discussions During Project Manager's Meeting

Paul Bergstrand suggested the team should not overlook some of the Draft CMS Reports that SCDHEC has discussed with the Navy and Ensafe. Tony will provide CH2M-Jones with a list of such reports submitted to SCDHEC. Mihir suggested that CH2M-Jones provide a list prioritizing to SCDHEC the documents submitted for SCDHEC review. Tony suggested that some of the Interim Measure Work Plans and reports could be prioritized, especially where they would allow fieldwork to commence soon. Dann Sparriosu suggested that if agreements were made on some sites that were candidates for NFA, this would reduce the list of documents to be reviewed. Mihir indicated that if there are sites where the RFI suggested a CMS but there were no COCs, the team can look into closing out such sites with an NFA.

Paul Bergstrand indicated that SCDHEC had hired a new hydrogeologist and had advertised for a new engineering position to fill a vacancy. He said this would help supplement the SCDHEC team on the project.

A discussion was held on the RFI comment resolution process. Paul Bergstrand indicated that every SWMU/AOC presented in the RFI will have been looked at and commented upon by SCDHEC. Mihir added that if there are no comments after RFI review for a given site, it is fair to assume that there is acceptance by SCDHEC of the RFI completeness for that site.

Dean inquired Tony on the status of some pending copies of analytical reports for certain sites that CH2M-Jones is waiting to receive from the Navy. Tony will assist CH2M-Jones to access these in the storage area at CNC. A discussion was held on providing work plans and reports on a CD and to further evaluate this possibility.

Gary shared the project submittal schedule with the team. Responding to a suggestion on the need to conduct fieldwork soon since weather conditions have improved, Mihir indicated that SCDHEC can write a letter providing conditional approval for fieldwork. Dean will send an email to Mihir making the request for conditional approval, and approval from SCDHEC will be provided via a letter.

Paul Bergstrand suggested that well installation requests be streamlined. Paul would like well installation requests not be made too far in advance of well installations, but approximately 2-3 weeks prior to installations. The well installation requests should be accompanied by information on the number of wells to be installed, their planned depths, diameters, some construction methods and details. The email or hardcopy requests should be followed with a phone call. Mihir asked if a standard form could be provided to CH2M-Jones that could be filled out to provide all the necessary information. Paul said that there was no standard form required by SCDHEC, but the information required could be concise (not more than 1 page).

On the issue of using DPT at sites, Paul Bergstrand suggested that DPT data should not be used to drive site management decisions but to aid in site characterization efforts by acting as a guide for installation of permanent monitoring wells or soil borings. A discussion followed on the applicability of the vertical profiler for site characterization efforts. Dean inquired if it is SCDHEC policy to require a monitoring well at every site. Paul Bergstrand

replied that it is not necessarily the case, but the requirement would be based on a site-specific evaluation.

### AOC 607

Dean provided a draft schedule for the AOC 607 (Building 225) remediation effort . He emphasized that the tasks preceding the six-phase heating which will begin in the Fall of 2001 have to be met without slippage. Mihir indicated that SCDHEC can help expedite the schedule and speed up the review process for the plans and reports by discussing the scope with CH2M-Jones and conducting the review simultaneously with the public comment period. He indicated that SCDHEC will make the review of plans and reports for this site a priority.

Dean explained that the scope of the remediation effort will be driven by the findings of the source area delineation and the schedule will be driven also by subcontractor availability. Paul Bergstrand inquired if the deep groundwater contamination was being investigated at this time. Dean indicated that such evaluation will be looked into after the shallow groundwater contamination was addressed. Dean presented the current understanding of the conceptual model of the contamination at this site.

## Tuesday, March 13, 2001

### Zone F Building 68 Demolition and Sampling

Tony opened the discussion with the question on what the team thought the path forward for this site was. Susan Peterson indicated that additional sampling was needed to get a better idea of the contamination. Dean indicated that the RFI completeness evaluation process will be followed and asked what the scope of work was for the building demolition. Tony indicated that the scope was to demolish the building down to the piers. A discussion followed regarding the need to sample for PCBs due to the presence of the transformer and whether or not there was justification to sample the concrete as part of the RFI investigation. Dean indicated that the work plan for the site involves coring through the concrete and sampling the media underneath the concrete to verify the presence of contamination in soil. Tony said that the Navy could request the RDA to check for contamination in concrete and if there was contamination in the concrete, soils underneath should be sampled. Dean said the tentative schedule for initiating the sampling would be late April 2001.

### Building 177 – Identification of Key Issues and Path Forward

Paul Bergstrand provided an overview of Building 177 layout, historic sample locations, possible historic site uses, drainage patterns, possible contamination from the paint booths, etc. A discussion followed on the possible operational scenarios at a painting and plating shop operation. Tony indicated that the drains from the building were considered during the Zone L studies for cross-connects and it was shown that the drains connected to a storm drain.

A discussion was made on whether a new SWMU/AOC was warranted here or the RFI for the existing AOC 563 (which is inside the building) could be expanded. There is a second AOC within the footprint of Building 177 (AOC 571). Additionally, AOC 572 is

approximately 50 ft from Building 177 and AOC 573 extends out from the southeastern corner of Building 177. Rob Harrell and Dean said that since there are so many AOCs in this area, it would be difficult to assign the source of contaminants in the area to any particular AOC or SWMU and if some of these sites are ready to be closed out while others are not, it would confuse the process. The team agreed that the sites will be addressed together in documents. It was agreed that this issue would be resolved during March.

## Zone K Clouter Island Scoping Package

Steve Parker made a brief presentation of the scoping package for the Zone K Clouter Island effort as well as the PAH memo for Clouter Island. Mihir suggested that we could have a breakout session during the April BCT Meeting to discuss Clouter Island scoping.

Tom Beisel requested Steve to provide any new survey data gathered, to CH2M-Jones so that it can be incorporated into the EGIS.

## SSL Memo

Dean presented copies of the revised SSL memo prepared by CH2M-Jones based on discussions and SCDHEC comment resolutions on the January 9, 2001 CH2M-Jones memo. This memo was presented earlier during the February BCT meeting. Dean suggested that the team needs to resolve the SSL issue quickly since it extends across a lot of sites. Mihir agreed that a quick resolution to this issue was important.

## Interim Measure Report – FY 2000 Groundwater Monitoring

Tom Beisel made a presentation of the information provided in the IM for the FY2000 groundwater monitoring. Tom explained that the benefit of this report was to be as a reference tool for the team during evaluation of groundwater issues at the sites included in this report. Tom said that we are looking at contaminant plumes at sites resulting from old releases and that these could potentially be at equilibrium. The concept of groundwater divide and the reasons for its variation due to various hydrogeological factors was also explained.

Paul Bergstrand requested that the dates of aerial photos be included in reports whenever aerial photos are employed to illustrate site conditions. He suggested that if there was sufficient interest, SCDHEC can check out aerial photos from the Univ. Of South Carolina library.

## Impact of Arsenic MCL Change

A discussion was held on the EPA proposal to reduce the MCL for arsenic from 50 µg/L to 10 µg/L. Stacy French indicated that due to the change in administration of the Federal government, there is a stay on the promulgation of the new arsenic MCL. Mihir indicated that SCDHEC cannot currently enforce the 10 µg/L arsenic MCL. He said that SCDHEC's goal is to clean up sites to background level, not necessarily to the MCL, but a background cut-off number needs to be established to flag site concentrations for further evaluation. He added that if the arsenic MCL comes down to 10 µg/L, then the team should revisit the SSL calculations, but should stay with the 50 µg/L arsenic MCL for the time being.

Vijaya asked if data from Dr. Mirecki's study on arsenic was available yet and if there was any information on background information from wells outside CNC. Tony promised to look into the matter. Mihir suggested that the team should try to resolve the background concentrations of inorganics in groundwater and indicated that SCDHEC will conduct an internal discussion on this matter. Tony urged the team to conduct this discussion even before the next BCT meeting.

## Interim Measure for Zone K Offsite Contamination Investigation

Todd Haverkost presented the results of the interim measure conducted by Ensafe to investigate offsite contamination from chlorinated VOCs near Zone K. Todd showed several illustrations of the findings of the sampling investigation and indicated that there were no sources of contamination detected north of Zone K. In the area north of Zone K, there were no findings of contamination in the groundwater deeper than 25 ft. below ground surface. The findings suggest that the offsite point with the highest concentration of contaminants does not seem to be related to onsite contamination (inside the CNC boundary) at Zone K, based on a groundwater divide between the two points of elevated contamination. Todd indicated that chloroform was seen consistently in the offsite area and could be attributed to off-site sources. In summary, there does not seem to be a need for the Navy to pursue further investigation.

Mihir added that based on his discussion with Stacey, his impression was that no contamination source seems to be coming into CNC at Zone K from offsite sources. Tony indicated that the Navy and SCDHEC would discuss this issue further.

## Meeting With SPA Representatives and pre-RAB Meeting Discussions

The meeting was joined by Keith Collinsworth (SCDHEC), Keith Johns(Ensafe), Steve Conner (South Carolina State Ports Authority(SCSPA)), Tom Hutto (General Engineering) and Suzanne Zoda (EnviroComm). A brief session was facilitated to hear questions and concerns of the SCSPA, one of the lessees of property at CNC. A memorandum prepared by Tom Hutto with questions on the progress of the environmental cleanup was provided to the BCT.

Tom Hutto asked what the long-term assessment of the cleanup schedule was. Tony indicated that a target of April 2002 is being looked at for remedy-in-place. Dean added that "remedy-in-place" does not mean "remedy complete", and that there could be ongoing monitoring work at that time as well. A discussion followed on the potential types of restrictions that could be placed on development activities at various tracts of land at CNC. Keith and Mihir indicated that a combination of cleanup and land use controls will be used to determine the fate of sites at CNC. Tom Hutto asked what possible restrictions could be placed on intrusive activities over the SWMU 9 landfill area in Zone H. Keith indicated that the developer would have the burden of satisfying DHEC that all engineering, safety and environmental concerns would be adequately addressed in the design for any proposed activity within the landfill footprint. Keith indicated that since the exact nature of the landfill waste contents are unknown, it would be difficult to speculate on the impact to the landfill waste and the environmental conditions around the landfill area, from surcharges or development on the landfill area. He added that it would also be difficult to predict land use after the land transfer is done.

Keith indicated that SCDHEC's position is not to allow early transfer of parcels until remedy is in place and until SCDHEC is confident that the remedy is working. Tony added that there are no sites on CNC that are allowed for development where cleanup or remedy is incomplete.

SPA representatives also indicated that they were under the impression that the site would be made suitable by the Navy for marine terminal uses, since that is what the zoning provided for. Tony Hunt indicated that any future users were welcome to do whatever facility upgrades were required to make the property effective for commercial use but that the Navy was not required to perform redevelopment work for future land users. Dean also confirmed that CH2M-Jones' contract had no obligation to perform redevelopment work on behalf of current or future lesees or owners but that those lessees or owners could invest their own capital in completing whatever redevelopment they chose to pursue.

## Site Visits

### PAH Sample Siting for Zones A, K and Railroad

Concurrent with the project managers' meeting, a site visit was conducted by Vijaya, Stacey and Darryl Gates to identify and mark PAH soil sampling locations in Zones A and K, and areas potentially impacted by the railroad lines in these zones.

Site visits were also conducted by team members to Building 177, AOC 700 and SWMU 156 to assess site conditions.

## April BCT Meeting

It was decided that the April BCT Meeting would be held at the SCDHEC offices on Farrow Road, Columbia, SC on Wednesday April 11, 2001 and Thursday April 12, 2001.

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## CNC BCT MEETING, MARCH 12-13, 2001,

### Charleston Naval Complex, N. CHARLESTON, SC

List of attendees:

**USEPA:** Dann Spariosu

**Navy:** Tony Hunt, Robert Harrell

**BLWM-SCDHEC:** Mihir Mehta, Paul Bergstrand, Stacy French, Susan Peterson, Mansour Malik, Mike Danielsen (3/13/01 only), Keith Collinsworth (3/13/01 only).

**Ensafe:** Todd Haverkost, Steve Parker

**CH2M-Jones:** Gary Foster, Dean Williamson, Vijaya Mylavarapu, Tom Beisel, Sam Naik, Jed Heames, Darryl Gates

Attachments:

March BCT Meeting Agenda

COPC Presentation

BCT Action Items Table

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