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NAVAL BASE CHARLESTON ENVIRONMENTAL PROJECT TEAM MEETING MINUTES FOR
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**Naval Base Charleston
Environmental Project Team**

Meeting Minutes

1999

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 3 to 4 Feb 99

Place: NH-C/Project Team Room

Time: 0800 - 1700

Attendees: Tony Hunt, Reece Batten, David Dodds (SDIV); Paul Bergstrand, Johnny Tapia, Ann Clark (DHEC); Dann Spariosu (USEPA); Jeri Johnson (RDA); Tom Fressilli (CSO); Thomas Beisel (CH2MHill); Todd Haverkost, Larry Bowers (EnSafe); Joe Land (GQI)

Invited Guests: Jed Heames (DET); Craig Smith (EnSafe)

Leader: Paul Bergstrand

Scribe: Larry Bowers

DISCUSSIONS/DECISIONS

9902-M364	Paul	<p>Check-in</p> <ul style="list-style-type: none"> - Review of ground rules. - Check in of project team members.
9902-M365	Paul	<p>DHEC Staffing</p> <ul style="list-style-type: none"> - Two new engineers are on board to assist PB and JT with the CNC CMS regulatory support effort. Charles Watson (80%) and Susan Peterson (50%). One hydrogeologist has accepted the position (Eric Catcart @ 80%) and a second hydro is soon to be assigned (person will be @ 50%). Recall that a risk assessor (@ 50%) has already been assigned to the CNC effort. Percentages indicate approx. amount of involvement each person will have with the CNC RCRA effort. That is, utilization on project. - PB and JT will continue to act as DHEC leads and they will represent the work of these individuals. If work is of a complex or detailed nature, then the individual DHEC person will represent work.
9902-M366	Paul	<p>Introduction of New RAC</p> <ul style="list-style-type: none"> - Tom Beisel, P.G., Project Manager, of CH2MHill (Atlanta office) was introduced to the project team. He represents the new RAC that has replaced Bechtel (previous RAC). Team members introduced themselves and their primary functions to Tom.
9902-M367	Joe and Paul	<p>Validate Agenda and Establish Parking Lot Items</p> <ul style="list-style-type: none"> - Completed.

9902-M368	Joe and Reece	<p>Dec Project Team Meeting AI Follow-up</p> <ul style="list-style-type: none"> - A205 - an agenda item for this meeting - A206 - done - A207 - to be done today (carry over item) - A208 - done - A209 - will be brought to Apr meeting by PB - A210 - done - A211 - drafted version completed but not ready to go out (soon though) - A212 - all we still have is the general footprint of the overall area and not building- or development-specific locations - A213 - backfill gravel in the SWMU 8 excavation is not expected to adversely impact or restrict overhead lay down development requirements - A214 - an agenda item for this meeting - A215 - done - A216 - done
9902-M369	Tony	<p>Area 737</p> <ul style="list-style-type: none"> - Clarification required; Area 737 is the 73 acre transfer site in Zone G. It will now be referred to as the SPA (State Port Authority) area. - The following sites are located in the SPA area or its adjacent buffer zone. - Zone H: SWMU 9 (really SWMU 20, and AOCs 649, 650, 651) and AOC 653. Zone G: AOC 633, AOC 634 (nfa site), AOC 638 (nfa site), SWMU 8, AOCs 636 and 642, AOCs 637, 643, 653 (SWMUs 6 and 7), UST 224 and UST 641, AOCs 628 and 629 and SWMU 11. Zone F: SWMU 36, SWMU 4 (nfa site), AOCs 619 and 620. Zone I: AST 3909 and UST 123-1. - Jeri wanted to know when a FOSL would be available for the SPA. TH said about 4 to 6 months. - The Navy proposes to assemble a figure showing RCRA and UST and pipeline sites that are located in the footprint and buffer zone of the SPA. In addition, a list of development restrictions, if any, will be produced for each site.
9902-M370	Reece	<p>SWMU 8/9</p> <ul style="list-style-type: none"> - Handout provided. - Reece briefed the team on SWMU 8 (and to a lesser extent, SWMU 9) status. - The large trench in SWMU 8 is in the process of being backfilled with gravel and will be clay and soil cover capped. An additional excavation and subsequent product removal effort, SW of the original one, will be completed by Jul 99. Total trench dimensions (including additional excavation) is approx. 100' by 700'. - Vertical risers will be installed along centerline of trench, about 50 to 100' apart. Risers will be 8 to 12' ID and perforated in subsurface area. Team agreed that risers should remain upright (not flush with ground surface) and protective bollards installed. Risers can always be reduced to flush mounts at a later date should the need (re-use requirements) arise, and not vice versa. - SWMU 9 geophysical survey completed and results to be forwarded to SDIV, for SDIV and DHEC review to re-establish landfill boundary. Physical topographic survey will be completed after landfill boundary is re-established by SDIV and DHEC.

9902-M371	David and Tony	<p>FOST and FOSL</p> <ul style="list-style-type: none"> - FOSL and FOST candidates: CU, marina, CTF and EDC-1 - EDC-1 (economic development conveyance) - no restrictions; EDC-2 - RCRA sites identified and IMS done, are now clean or remedial action is currently taking place and site will soon be clean; EDC-3 - CMS sites (thus, remedial alternative not yet identified, evaluated or implemented). - EDC consider all types of sites: RCRA, UST/AST, LBP, asbestos. - Marina waiting completion of Zone I RFI. CU is clean. CTF is a public benefit conveyance to the City of No. Charleston, School District, and the Navy will not be able to demo all tanks due to some unresolved (funding and other?) issues.
9902-M372	Tony	<p>IC</p> <ul style="list-style-type: none"> - The Navy would like to provide to Tier II an example of IC (institutional controls) for an example area such as Zone A. - Zone A has been selected because of the interest the City of No. Charleston has in Pier A (see last bullet though). - Dann reminded the team that IC should be included in the CMS process and that the CMS will evaluate/estimate the cost of maintaining the IC (for certain sites, such as SWMU 9). Another good example would be SWMU 2. What would be the costs to maintain IC associated with an asphalt cap (as a possible alternative) versus excavation based on lead rgos? - Tony proposed using Zone E (the heavy industrial area) as an example area that will obviously require some IC. Thus, Zone E will likely be the test case (as opposed to Zone A) for IC presentation to Tier II.
9902-M373	Larry	<p>Waste Consolidation at SWMU 9</p> <ul style="list-style-type: none"> - Handout provided. - Larry briefed the team on an EnSafe position paper that was written regarding the potential benefits (and liabilities) of consolidating (at SWMU 9) low level impacted surface soil obtained throughout CNC. It is anticipated that the final remedial option at many of CNC soil sites will likely consist of a low cost and low technology alternative such as dig-n-haul. Instead of transporting this nonHW material offsite for disposal over a year or two period, how about consolidating the impacted surface soil on top of SMWU 9? And then capping this material due to exposure concerns? Larry requested input from the team regarding concerns associated with the proposed waste consolidation effort. - Several questions arose from the team: Will this proposed effort trigger or reopen landfill operation and permitting requirements (USEPA)? Have you reviewed the new EPA guidance outlining management of remediation waste at RCRA sites (DHEC)? - End result; review recent EPA document (Oct 98) and report back to team as to feasibility of proposal. Likelihood of soil consolidation at SWMU 9 is low.

9902-M374	Tony	<p>Sump PCB labels at SWMU 17</p> <ul style="list-style-type: none"> - The likelihood of sumps still containing PCBs (at the 2 ppm level) is low. - PCB warning labels were recently removed. - The sumps (drums) are secured from illicit entry. That is, the bung straps and bolts have been checked and replaced as necessary. - Any excavations completed by SCG&E near the building associated with SWMU 17 will have to be approved and managed by SCG&E H&S personnel. That is, SCG&E is directly responsible for the protection of their people in any trenches they may produce at SWMU 17. SCG&E is also held responsible for its trenches and other people that may come in contact with the trenches (passer-bys and trespassers). - It's an OSHA (H&S) issue and not a RCRA issue.
9902-M375	Jed	<p>DET Update</p> <ul style="list-style-type: none"> - Handout provided. - Jed briefed the team on the status of: Zone A grid, AOC 699, SWMU 8, SWMU 166, Zone G grid PCBs, SWMU 11, SWMU 25, SWMU 9, and Bldg. 226. - SWMU 11 SCR now available. - SWMU 9 test pit results done; Tony, Reece and DHEC will redefine SWMU 9 boundary based on the DET activity. Then DET will complete 50' grid topo survey. - Zone A grid report due 19 Apr yet likely avail by Mar. - AOC 699 is in works. - SWMU 8, SDIV approved OK for additional excavation (SW of existing trench). PB would like to see monthly sampling (gaging for product) of stand pipes when they are installed. Determine need for additional product recovery. - SWMU 166 SCR available by 22 Feb. - Zone G grid PCBs SCR is available. - SWMU 11 SCR out 3 Feb. - SWMU 25, WP being submitted for approval to remove electrical vault 7A. - PB asked for a status briefing of the DET, as a group. Jed said the DET will no longer be a civil service agency come Sep 99. The DET hopes to privatize by then and continue to support SDIV and/or other clients.
9902-M376	Tony	<p>IW Issue</p> <ul style="list-style-type: none"> - Issue; transfer of property with IW from Navy to State Dept. - MOA; Navy must comply with all BRAC requirements and will provide an EBS to the State Dept (or any other tenant for that matter) prior to property transfer. - State Dept IW installed in '96. We have driller's name, etc. - Bottom line; MOA is protective of IW issue to some extent but dig permits are required by all tenants at CNC, therefore providing the protective coverage sought by the team. However, dig permits are required as long as the CSO exists. When the CSO goes, so does the permit requirement, unless some other permitting authority is in place.
9902-M377	Ann	<p>Tier II Expectations</p> <ul style="list-style-type: none"> - Ann posed the following q's to the team. - Is there anything I can support you with regarding the Tier II link? - Tier II involvement, how much and how often? - You can vote on this when I am absent if you prefer, but Tier II wants to know who you would like representing your group - Glenn or myself? - Team consensus vote selected Ann to replace as our Tier II link.

9902-M378	Tony	<p>AOC 700</p> <ul style="list-style-type: none"> - Tony presented several figures (via USGS) showing GW flow predictions at AOC 700. It appears that a storm sewer, that runs parallel to Avenue D, tends to skew the GW contours adjacent the site. - Discussion continued regarding GW flow at AOC 700 and it was noted that EnSafe has recently re-evaluated GW flow at this site for the Zone C CMS work plan. - The team agreed that an additional GW well should be located between Building 1646 and Avenue D. This would satisfy DHEC's concern regarding GW characterization associated with Building 1646 former storage activities. Analysis will be for inorganics and pesticides. This effort will be part of the Zone C CMS.
9902-M379	Larry	<p>TS Update, SWMU 166 and AOC 607</p> <ul style="list-style-type: none"> - SWMU 166; aquifer test is currently taking place. - AOC 607; aquifer test is planned for next week. - Preliminary results (real preliminary) for SWMU 166 - recovery rate for test well is 1 gpm (aquifer capable of several gpm's though, low gpm), drawdown at pump well @ 1 gpm is approx. 4 to 6 feet and drops down to 2 feet or less in adjacent observations wells (radially, about 10 to 25' from pump well), ZOI approximately 200' and in the quarter to 2 inch range. - To soon for update at AOC 607. - Apr team meeting will hear/see more applicable TS updates. It will likely include results of pump tests and GW model, briefing on TS design (layout, key parameters, etc.), and schedule update.
9902-M380	Team	<p>Meeting Frequency</p> <ul style="list-style-type: none"> - The team agreed to keep the present bi-monthly meeting frequency and increase the use of teleconferences as needed. - The team also agreed to occasionally re-evaluate meeting frequency.
9902-M381	Larry	<p>SWMU 44 CMS Re-sampling</p> <ul style="list-style-type: none"> - Larry briefed the team on the number of SWMU 44 soil samples required in the Zone C CMS work plan. - A 25' foot grid in the foot print of the excavation area would yield close to 400 sample locations, thus 800 samples (upper and lower per location). A 50' grid would yield about 100 sample locations. - Team input was requested on sampling strategy. Do we go with biased grids or go statistics? - The team agreed that a statistical approach would be best seeming this area was fully disturbed after RFI completion. - A sampling strategy figure based on statistics will be provided to the team by 16 Feb and a conference call to discuss such strategy will occur on 24 Feb, 1000 eastern. Don Cooke will set up conference call. Note that Zone C CMS field work is scheduled to begin by 1 Mar 99, thus this issue needs resolution prior to Mar.

9902-M382	Larry	<p>Handling of Minor Sites at Zone H</p> <ul style="list-style-type: none"> - It was brought to the attention of the team that several Zone H CMS sites (most of the minor sites) should now be considered for NFA or moved directly into the Navy PST program. There is no need to complete a CMS on some of these sites. - This recommendation was based on the fact that CMS data gaps have since been closed and the results of the additional CMS sampling have indicated significant decrease or total elimination of project team designated COCs. - Sites in question include: SWMU 136 and AOC 663 (recommend transfer from CMS to PST program), SWMU 159 (rec. NFA), AOC 653 (rec. NFA), AOC 655 (rec. transfer from CMS to PST program), AOC 656 (rec. NFA), and AOC 666 (rec. transfer from CMS to PST program). - The project team agreed to the following process to handle these types of sites: 1) If DET ISM completed at site, then site must remain in CMS report - the CMS report will essentially summarize the results of the DET ISM and based on CMS data gap results will conclude a NFA for the site - no remedial alternatives will be identified, evaluated or ranked - no SOB will be written - because these elements of the CMS would NOT be applicable. 2) If no DET ISM completed at site, then the site will be removed from the CMS process via a memo (site summary, CMS data results, rationale for NFA advocacy, etc.) to DHEC - the CMS report will refer to this memo and designate the site as NFA - no remedial alternatives will be identified, evaluated or ranked - no SOB would be written - because these elements of the CMS would NOT be applicable.
9902-M383	David	<p>SWMU 166 and MNA</p> <ul style="list-style-type: none"> - It was agreed that David and Larry (plus Ronnie, Charlie and Todd K. - EnSafe MNA) would hold a conference call on 8 Feb to discuss MNA and TS start/stop protocol for SWMU 166 and AOC 607. - The intent of the discussion would be to clarify when MNA would cease during TS work, when it would restart after the TS, its estimated duration post-TS, and post-TS areas of influence that will require MNA re-base lining. Proposal is to be provided to DHEC by 22 Feb for conference call on 24 Feb. Time of 24 Feb conference call has not been established, but Charlie will lead this effort. Participants will be DHEC, David, Larry, Ronnie, Charlie and/or Todd K.

9902-M384	Joe	<p>Team Training/Mission Vision Goals (MVG)</p> <ul style="list-style-type: none"> - A revisit to our Vision and Mission statements produced the following. - Vision: To accomplish our mission we will be innovative, manage risk, make decisions, expedite transfer, improve teamwork, establish and meet milestones, and be responsive to community needs. - Mission: The mission of the Charleston Naval Complex Environmental Clean-up Team is to return the former base to the community through effective, efficient and expedited clean-up ensuring protection of human health and the environment. - Exercise; Joe requested that everyone list their project-related goals for the next 18 months. That is, what would you like to see accomplished in the next 18 months. List 5 goals per person. - The team then was divided into two groups and each group sorted their goals based on commonality. The list of goals generated by each group was then reviewed by the entire team and discussions ensued. Where are we heading? What can we do to better reach that end point? etc. - Examples: complete RFI phase by Jan, expedite FOST/FOSL process, remedy selected and in place at 166/607 by Aug 00, complete 50% of CMS by Aug 00, etc. - Exercise provided a focus point for near and long term goals; attainable goals with team consensus.
9902-M385	Craig	<p>AOC 680/681 Update</p> <ul style="list-style-type: none"> - Handouts provided. - AOC 678/679: GW - Well 001 sampled twice and ND for VOCs, inorganics (arsenic) at 5.3 ppb yet well below MCL. Soil - Boring 003 at 678 detected BEQ > RBC but < SSL, and GW at nearby well 002 was ND for BEQ. Recommend NFA for site. - AOC 680: GW and soil - Additional well, 680 004 was added. Soil at boring 005 had low levels of DCE but adjacent new well 004 was ND for VOCs. - AOC 681: Three OW separators present at site. Some surface soil did appear impacted but subsurface soil was not. A potential 2nd source exists. - Revised RFI, Zone I, to be completed by mid February. - Addendum package with latest results will follow distribution of RFI report.
9902-M386	Tony	<p>CAMP</p> <ul style="list-style-type: none"> - The CAMP (Corrective Action Management Plan) was revised via support and input from all team members. - The CAMP includes status of RFI and CMS efforts, action required, and responsible entity. - Tony will modify/update existing CAMP based on today's input and transmit new CAMP to team members by 12 Feb.

9902-M387	Tony	<p>SWMU 39 Off-site Well</p> <ul style="list-style-type: none"> - Tony discussed the purpose and scope of the diffusion samplers to be used at SWMU 39. DHEC expressed concern about the need for additional sampling points west of the west property line (near tributary of Noisette Creek). Navy questioned the value of this type of data seeming it was obvious that VOCs were at the property boundary yet not at the offsite well west of the tributary. - The Navy proposed using the VB diffusion samplers in all the SMWU 39 perimeter wells and possibly all the other SWMU 39 wells. Tony suggested that Mr. VB could come down from Columbia for the next team meeting in Apr and provide a briefing on the samplers, their intended purpose, their benefits, etc. - It was concluded that Mr. VB would be asked to brief the team on the VB samplers during the Apr team meeting.
9902-M388	Tony	<p>AOC 646 and Building 3906 at CTF</p> <ul style="list-style-type: none"> - COC was BEQ, I risk at 3.9E-7 and R risk at 1.9E-6, surface soil, 4 samples (upper and lower). - Question to team: What do you think about site risk and presence of building among tanks? - DEHC response: Take building out. Demo it. No problem with risk seeming it all stems from BEQs. - Team consensus; NFA AOC 646 and demo building.
9902-M389	Tony	<p>FOST and FOSL Revisited</p> <ul style="list-style-type: none"> - Marina, CU, CTF; FOST by Apr 99 - Marina: some inorganics in GW - CTF: other than an IR site in center, its ready to go - CU: clean, center of Zone D (parking lot and warehouses) - EDC-1: FOST Jun 99
9902-M390	Joe	<p>Close and Wrap-up Plus</p> <ul style="list-style-type: none"> - schedule update - mission vision goals exercise - DET update - Team leader ran tight ship - timer/clock - FOST/FOSL issues - agenda building - team lunch out - Tier II resolution - RAC (CH2MHill) presence - DHEC staffing increase - Dann's new BMW <p>Negative</p> <ul style="list-style-type: none"> - timer/clock - room temperature - agenda/acronym confusion - lack of specific names on agenda items - go to all members for ideas (quiet group in rear) - DHEC staffing not yet fully completed (2nd hydrogeologist not identified or placed) - no rides in Dann's new BMW

Action Items

9902-A217	Tony	Check status of FOSL for SPA area. By 19 Feb.
9902-A218	Tony	Provide list of proposed sites (RCRA, UST, pipeline) and redevelopment restrictions for SPA area to team. By 5 Feb.
9902-A219	Tony	Respond to the RDA regarding aforementioned AI. By 19 Feb.
9902-A220	Dann, Ann, and Tony	Complete scoping meeting to clarify/pin down FOST language. By 24 Feb.
9902-A221	Dann	Speak with EPA attorneys regarding FOST language and development of baseline transfer document. By 29 Feb.
9902-A222	David	Draft LUR/IC for CIA (with EnSafe support if needed). By 26 Feb.
9902-A223	Johnny	Forward EPA RCRA Waste Management guidelines to team. Review applicability for potential soil consolidation at SWMU 9. By 15 Feb.
9902-A224	Tony	Check with CSO regarding IW letter to tenants. By 15 Feb.
9902-A225	Larry	Don Cooke will determine a statistically defensible sampling strategy for SWMU 44 CMS effort. Figure with sampling points will be forwarded to team by 16 Feb and conference call will commence on 24 Feb at 1000 eastern. Don will coordinate figure distribution and call.
9902-A226	David	Submit TS and MNA start/stop protocol to DHEC by 22 Feb for conference call on 24 Feb. EnSafe (Ronnie, Todd K. and Charlie) will support. No time set yet for conference call, David will coordinate.
9902-A227	Tony	Submit VB sampler protocol at SWMU 39 (GW and gas) to DHEC. By 1 Mar.
9902-A228	Todd	Develop poster of team mission statement for wall. Confirm final mission statement with Joe Land and/or Tony. By Apr team meeting.
9902-A229	Tony/David	AOC 681, Navy will review and propose action required for this site (such as DET ISM or additional characterization work). To team by 18 Feb.
9902-A230	Tony/David	EDC-1 Figure completion. By Apr 99.
9902-A231	David	Propose SWMU 8 data needs. By 26 Feb.

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 13 to 14 Apr 99

Place: NH-C/Project Team Room

Time: 0800 - 1700

Attendees: Tony Hunt, Reece Batten, David Dodds (SDIV); Melissa King, Paul Bergstrand, Eric Cathcart, Charles Watson (DHEC); Dann Spariosu (USEPA); Jeri Johnson (RDA); Tom Fressilli (CSO); Thomas Beisel (CH2MHill); Larry Bowers (EnSafe); Joe Land (GQI)

Invited Guests: Steve Freeman, Alec Sagebien (Hess); Natalie Warner (Foster Wheeler for Hess); Don Vroblesky (USGS); Jed Heames (DET); Rick Davis (SDIV); Mike Montgomery, Tom Boyd (NRL); Charlie Vernoy, Todd Kafka, Craig Smith, Amy Stehlin, Jay Cornelius (EnSafe)

Leader: David Dodds

Scribe: Larry Bowers

DISCUSSIONS/DECISIONS

9904-M391	David	<p>Check-in</p> <ul style="list-style-type: none"> - Review of ground rules. - Check in of project team members. - Revise agenda.
9904-M392	Melissa	<p>DHEC Staffing</p> <ul style="list-style-type: none"> - Two new DHEC staffers are on line and are present at today's PT meeting; Charles Watson (80% devoted to CNC) and Eric Cathcart (80% devoted to CNC), an engineer and a hydrogeologist, respectively. Not present are Susan Peterson (and engineer) and Mike Danielson (a hydrogeologist) who will be 50% devoted to CNC. - Johnny Tapi's replacement is expected soon. Johnny has accepted a lateral transfer to another department.
9904-M393	Joe	<p>Corporate Name Change</p> <ul style="list-style-type: none"> - The Center for Leadership Development, Inc. has replaced Galileo Quality Institute. All else remains the same.

9904-M394	Joe	<p>New Member Drill</p> <ul style="list-style-type: none"> - Completed. - What you should know about me. - What you should know about the team. - What I expect from you. - What you can expect from me. - Pet Peeves (annoyances). - David, schedules that are not met. - Tony, gossip and lack of responsiveness. - Dann, lack of empowerment of personnel to make decisions at the table. - Larry, unnecessary details/requests. - Tom, hiding things and not bring issues to the table for resolution. - Reece, people who toss trash out their car windows. - Melissa, bad attitudes. - Charles, - Eric, - Paul, the public's misunderstanding of environmental programs.
9904-M395	Tony	<p>Redevelopment and Restoration at CNC</p> <ul style="list-style-type: none"> - Rick Davis, SDIV will arrive this morning to discuss SDIV's proposal for site restoration and redevelopment, simultaneously. - This process will not happen overnight, but SDIV is planning on it soon. - CNC selected as the lucky base. - SDIV will be replaced by a single contractor who takes full responsibility and burden of complete site cleanup and transfer. - More from Rick.
9904-M396	Tony	<p>RAB Agenda</p> <ul style="list-style-type: none"> - Add Rick Davis. - Dann is concerned about DET ISM's quasi-circumventing the public participation process. Public input is required during this process and Dann has not seen much of that. - How do we want to inform the RAB and community members of ISM intent for sites? So far, there really has been no means for RAB or community input into the ISM process.
9904-M397	Tony	<p>CU and Marina FOST Comments</p> <ul style="list-style-type: none"> - Marina (Bldg. 635); EBS referred to a transformer containing PCBs (and it leaked). This transformer was located where 636 now stands. Therefore it is assumed that any impacted soil was removed during the removal of the transformer and the construction of the Bldg. No further action will be taken. - 2 ASTs use to be on property but only 1 remains, and it does not leak. NFA. - The marina will thus be transferred to the Parks and Recreation Commission with unrestricted reuse (officially commercial and recreational reuse). - Incorrectly stated that there was no lead or asbestos in building. FOST will be revised. Asbestos is nonfriable and not accessible. - CU; additional property is being requested for transfer, therefore FOST will be revised and resubmitted.
9904-M398	David	<p>Email Change at SDIV</p> <ul style="list-style-type: none"> - Last name first followed by 2 initials. All else remains the same.

9904-M399	Rick	<p>Outsourcing CNC</p> <ul style="list-style-type: none"> - Handout provided. - Rick briefed the team on the results of SDIV's presentation/briefing to Adm. Granuzzo. - Outsourcing proposed, comparable to FISC Oakland. - Let contractor take the entire base and accept full responsibility for its cleanup, transfer, liabilities for known and unknown contamination ... basically the entire pot of boiling lobsters, clamshells and all. - Firm fixed price, insured.
9904-M400	Joe	<p>Outsourcing Concerns of the PT</p> <ul style="list-style-type: none"> - Slow down schedule. - Why now? - Why CNC? - Did you (SDIV) really think about the ramifications of this? - New/different way of doing business ... better? or worse? - Private firm will be focused on \$\$. - PT would not be empowered (really wouldn't exist) - what recourse would there be to the Navy? - An unknown relationship. - Difficult for a "successful" team to change way of doing business. - Will DHEC/EPA be allow to review SOW and boiler plate proposal? - Lets meet on 26 Apr 99, to discuss this further.
9904-M401	Craig	<p>Zone F RFI C/RTC</p> <ul style="list-style-type: none"> - Handout provided. - Eric comments below. - 1; Charlie Vernoy will provide input tomorrow during his presentation. - 2; per c/rtc - 3; clarification of comment requested - 4; this info (AOC 607) will be provided to Craig from Fred, Krista and Ted (EnSafe CMS team for AOC 607) - 5; need additional rounds of data and revisit issue, then decide on course of action (risk management decision) - 6; ? - 7; OK - 8; arsenic to the RCRA program, fuel to the UST program (proposed by Craig) - 9; OK - 10; OK - 11; ? - 12; DHEC concern ... explain galvanizing process, location of UST, release history, sampling points through concrete apron? - Johnny comments below. - 1 to 10; OK - 11; clarify analytical results of the samples. - 12 to 16; OK - 22; we propose two more wells. - 23 to 25; OK - 26; fate and transport section will be revised to clarify that there is no fate and transport issue.

9904-M402	Larry and David	<p>PT Banner (Mission and Vision Statements)</p> <ul style="list-style-type: none"> - For the most part the PT liked the banner. However, Jeri (RDA) did not like it all (why now?). - Remove blue flying flag in center and replace with BRAC symbol. Group the three key members (SDIV, DHEC, and EPA) around the BRAC symbol. - Good for go after revision.
9904-M403	Jed	<p>Det Update</p> <ul style="list-style-type: none"> - Handout provided. - SWMU 8 is the only approved ISM that is being worked right now. Area 2 excavation to start soon. - A work plan has been generated for SWMU 25 (electrical vault removal). Mike Wheeler is site manager. - SWMU 9 topo map likely late May.
9904-M404	David	<p>CAMP Schedule</p> <ul style="list-style-type: none"> - Schedule was revised with input from team members. - Schedule will be distributed to team members.
9904-M405	David and Joe	<p>RAB Debrief</p> <p>Plus</p> <ul style="list-style-type: none"> - attendance - other members spoke up - DET presentation - alternate opinions from other RAB members - CTF questions - HMO analogy - Gabe's UST/AST update <p>Negative</p> <ul style="list-style-type: none"> - trust issues - lack of preparation of environmental presentation - lack of support by upper USN management - perception that project team not accomplishing anything - late assignment to David - few community members - the use of acronyms - RAB did not fully understand Rick's presentation - RDA believes CAMP is made in stone and does not understand or accept schedule slippage - Rick's simplification of cleanup technologies (such that old technologies are not good, etc.) - no comparison to Oakland site - have we asked RAB for its opinion on issues? - Rick sold them out - Rick presentation had a hidden agenda (which will undo partnering established over the years) - how will you measure success of current team vs new team/contractor? <p>SDIV will put their own spin on the situation to make the "new way" look better than the previous way of doing business.</p>

9904-M406	Keith	<p>Success Communication</p> <ul style="list-style-type: none"> - The intent of our “success communication” campaign is to provide information to a mixed audience (Navy, RAB, civilian community, consulting community, etc.). - This is seen as an opportunity to share our successes with those who would benefit from this information. - Keith needs 1) a list of what type of successes we would like to share, and 2) a list of audiences that are to be the recipients of this information. - Some potential success stories: 1) How positive reuse has benefitted from environmental work, 2) How environmental work has gone on while facility has continued operations, 3) Responsiveness to FOSL {container facility FOSL in particular}, 4) Success in source control with ISMs that have NOT impaired reuse potential, 5) Environmental management strategy has allowed reuse/reutilization to be a priority over corrective action, 6) Risk management strategy {the significant reduction of sites from the RFA to the RFI to the CMS to the CMS}, 7) Show number of ISMs, asbestos work, LBP work, USTs/ASTs, etc., 8) 607 and 166 progress to date, 9) DET utilization, and 10) CTF conveyance. - Some potential audiences: 1) Washington, 2) State Legislature {DHEC news letter}, 3) Professional publications. - Joe Land conducted a “sticky paper” drill where additional success stories and target audiences were generated. Information provided to Keith.
9904-M407	Charlie and Todd K.	<p>MNA Update and Project Refresher</p> <ul style="list-style-type: none"> - Handout provided. - Two rounds of MNA sampling have been conducted at five sites that are currently in the CMS process: 9, 17, 39, 166 and 607 sites. - Charlie and Todd K. discussed the qualitative assessment approach to MNA; its benefits and its process. - CMS sites that have current TS (treatability study) work in progress will greatly impact any future MNA efforts. Therefore it is NOT advisable to continue the MNA and TS process simultaneously. A start/stop and re-evaluation cycle is recommended and Larry will discuss this in more detail after later during the PT meeting. - Contents of the SWMU 166 Interim MNA Report was discussed. It is a very detailed report that provides limited value to the EnSafe/Navy MNA team and thus a strong recommendation was made to NOT continue with the production of interim MNA reports. - Limitations at the four other sites were discussed. Please see handout. - Presentation concluded with a discussion of the “next step” for the MNA effort at CNC. MNA and TS efforts will no longer be evaluated as simultaneous events at CNC sites. A re-evaluation of MNA will be conducted post TS work (and only if post TS results indicate a need for subsequent MNA evaluation). No more interim MNA reports will be produced for the CNC project. Instead, a full MNA evaluation will be provided in the CMS report because MNA will consist of a potential remedial alternative and its evaluation is mostly applicable to the CMS report stage. - Decision: hold a Tech subcommittee meeting on 26 Apr 99 (EnSafe office) to discuss issue further. Attendees to include Navy, DHEC and EnSafe (CV and TK).

9904-M408	Don	<p>Diffusion Samplers</p> <ul style="list-style-type: none"> - Don Vroblesky, of USGS Columbia SC was an invited guest. Don briefed the team on the benefits and history of diffusion samplers. He said he would help interpret data also. - The team's primary interest was for the use of the d samplers at SWMU 39 primarily in the area of the Noisette Creek and property boundary interface. - Three handouts provided. - DET will be used to place samplers in the field. - Approximately 50 d samplers estimated for the interface zone. Several will go into perimeter wells for correlation purposes while a majority will go into the creek/sediment/shoreline/surface water interface region. - Sampling technique not USEPA approved but has been accepted by several USEPA regions and state agencies throughout the US. - DET (Jed) will provide sample placement points and Navy will buy off. - Several discussions ensued regarding the types of d samplers, their placement and time required for diffusion process. - The team was VERY accepting of this technology and supports its use at SWMU 39 and other applicable sites at CNC.
9904-M409	Alec	<p>Hess Remediation Efforts To Date</p> <ul style="list-style-type: none"> - Invited guests: Alec Sagebien (Hess, Supervisor of Refining and Marketing Remediation), Natalie Warner (Foster Wheeler, Env. Engineer), and Steve Freeman (Hess, Special Projects Foreman). - Delineation efforts are done. - Semi-annual sampling (BTEX, naptha, etc) done in Jan and Jul. About 1.5 feet of product remains on SW portion of property (that is, NW portion of SWMU 39). - Interim CA; vacuum truck used to recover product monthly. - Pilot test completed; vacuum truck used on one well and pressure drops measured on others. About 1 inch of drawdown indicated at well 39014. ZOI close to 06 and 02 also. - At well 11, SWMU 39, Hess has installed a passive free product recovery device (big wick sorta). - Hess remediation system; 7 wells manifolded to a central vac system, product removal is the only goal right now with MNA to polished the remaining dissolved phase. Obviously, pore air in the depressed cone would be vacuumed off also. One to 2 gpm, and about 110 cfm for air. Likely start Jan 00.

9904-M410	Jay and Mike	<p>Zone J update via EnSafe and NRL</p> <ul style="list-style-type: none"> - Jay provided an update on screening values for Zone J sediment. - Multiple screening values can be used. The Zone J RFI completed sediment screening on USEPA values current as of that time. However, new USEPA eco screening values are available. - Tony mentioned the new Navy policy (May 97) which states that the Navy will consider risk from all significant sources and pathways. Does it really matter if the Navy removes the source because another source (non Navy) may be present which would effectively undo any Navy efforts. Therefore, an obvious effort of Navy work will consist of searching for non Navy sources. - Jay provided a list of sediment screening values and the results of using them for Zone J. - Tony reiterated the purpose of the NRL assist. We want to get a better fix on sedimentation rates, particle size analysis and PAH correlation. Also want to get a better fix on mass balance of the CNC water column. And we also want to determine the effects and benefits of mineralization (self remediation) so we don't disturb the process by say, remediation dredging. - Mike Montgomery of the NRL gave an extensive presentation regarding the Zone J sediment results. The next step was discussed.
9904-M411	Larry	<p>SWMU 166 and AOC 607 TS Update</p> <ul style="list-style-type: none"> - Handouts provided. Overhead used. - A brief discussion regarding the results of the step and constant rate pump tests for these two sites were discussed. Pump rates, duration, drawdown curves, etc. ZOI approximately 100 to 200 feet for both sites. And both sites good candidates for proposed TS technologies. No hydrogeologic barriers to TS implementation. - SWMU 166 A-A Sequential Biodegradation TS Design Document has been submitted to the Navy. Coordination and contracting with vendors to start late April. Tentative operational dates and milestones provided in handout. - The reason (e.g. impacted deep aquifer identified during the pump test) for recent GeoProbe sampling activities at AOC 607 was discussed. Analytical results not yet available though. Current technology proposed for TS may be reconsidered based on results of pending GeoProbe data.
9904-M412	Larry	<p>MNA/TS Start/Stop and Re-evaluate Cycle</p> <ul style="list-style-type: none"> - Handouts provided. Overhead used. - Larry reiterated what Charlie and Todd K. discussed during their MNA presentation. - TS and MNA activity will NOT be conducted simultaneously at CMS sites. As soon as site is targeted for TS work, all MNA activities will be placed on hold until the TS is completed and the site is allowed to re-equilibrate (e.g. stabilize hydrogeologically). And MNA work will re-start at sites post the TS only if the results of the TS indicate that MNA may support a polishing role for residual contamination.
9904-M413	Tony	<p>February PT Meeting Action Item Follow-up</p> <ul style="list-style-type: none"> - Will revisit this at June PT meeting.

9904-M414	Joe	<p>Close and Wrap-up</p> <p>Plus</p> <ul style="list-style-type: none"> - team leader did a good job handling rapidly changing agenda priorities - time keeper - good attitudes - Don Vrobleyky presentation - New DHEC members comfortable with new roles - MNA/TS Start/Stop and Re-evaluate Cycle discussion - covered a lot - New DHEC personnel present <p>Negative</p> <ul style="list-style-type: none"> - rough meeting, lots of unplanned activities - telephone interruption - changing agenda, constantly - outsourcing assignment - MNA miscommunication - to many out of towners and agenda shuffling
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Action Items

9904-A229	Larry	1 page resumes of team members to Larry. By 15 May.
9904-A230	Tony	Presentation summarizing ISM to date, for next RAB meeting. By 15 May.
9904-A231	David	Coordinate with RW Smith (SCE&G) to ID potentially impacted vaults (SWMU 25 and others) and address responsibilities for work in the areas of existing SWMUs and AOCs. By 15 May.
9904-A232	Paul	Check on air filters at CTF. By 15 May.
9904-A233	Tony	Look at ?art? questions as they relate to alternatives at various sites. By 30 Apr.
9904-A234	Keith	Boil information down for success communication and provide boiler plate/input. Email to team. By 24 Apr.
9904-A235	Tony	Propose list of screening values for Zone J sediment after a consistency determination is completed, etc. By 15 May.
9904-A236	Tony	Revisit February PT meeting action items. By 1 Jun.

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 7 to 9 Jun 99 **Place:** NH-C/Project Team Room **Time:** 0800 - 1700

Attendees: Tony Hunt, David Dodds (SDIV); Melissa King, Ann Reagan, Paul Bergstrand, Mihir Mehta, Eric Cathcart (DHEC); Dann Spariosu (USEPA); Tom Fressilli (CSO); Todd Haverkost, Larry Bowers (EnSafe); Joe Land (CLD)

Invited Guests: Tammy Gunner, Mike Wheeler, Kevin Tunstall, Jed Heames (DET); Keith Johns (EnSafe)

Leader: Tony Hunt

Scribe: Larry Bowers

DISCUSSIONS/DECISIONS

9906-M415	Tony	Check-in (1st) - Review of ground rules. - Check in of PT members.
9906-M416	David	Facility Tour - A base tour was provided for new DHEC PT members (Eric Cathcart, Charles Watson, and Mihir Mehta). Several current PT members were also present during the base tour. - The group spent several hours visiting the key sites (such as SWMU 39, AOC 607, SWMU 166, SWMU 8, SWMU 17, etc.) at the base.
9906-M417	Tony	Check-in (2nd) - Review of ground rules. - Check in of PT members. - Revise agenda.
9906-M418	Tony	Feb PT Meeting AI Follow Up - A217, proceeding and in progress, approx. 25 Jun 99 for FOSL - A218, still working w/Gabe M. assist - A219, ditto - A220 to A223, done - A224, FYI, CSO will not issue letter pertaining to IW ... yet a req't still exists for new tenants requiring that they must come to the CSO (as part of lease agreement) to request permission for any type of invasive activities (digging, IW, etc.) - A225 to A231, done

DISCUSSIONS/DECISIONS (Continued)

9906-M418 (Continued)	Tony	<p>Apr PT Meeting AI Follow Up</p> <ul style="list-style-type: none"> - A229, most resumes but not all have been received - A230, working - A231, working - A232, have checked but will need to check with DET also - A233, to be discussed this month - A234, working - A235, Jay C. is to follow up on this and will provide info to Tony - A236, done
9906-M419	Jed	<p>DET ISM Update</p> <ul style="list-style-type: none"> - Handout provided - AOC 643 (PCBs and arsenic) WP waiting on DHEC approval - SWMU 9 being surveyed now - AOC 633 (PCBs) will issue WP by 11 Jun - AOC 681 sampling done, report to EnSafe and SDIV by 11 Jun - AOC 670/? waiting for NTP - SWMU 177/RTC identified some subsurface anomalies but they were utilities, no UST found at site - SWMU 39 funding rec'd and locations approved, will install about 18 diff samplers by next week, 2 weeks in, data by late Jul - SWMU 8 new area being excavated now, product being recovered
9906-M420	Jed	<p>SWMU 2 ISM WP C/RTC</p> <ul style="list-style-type: none"> - DET ISM not addressing eco issue (per DHEC concern), but DET says source is being addressed and reiterated that RFI stated eco issues were minimal - DET will include a statement that says "ISM may not be final remedy" - DET will place plastic on ground during loading of trucks (per DHEC request) and will construct silt fences for run off control (south side of site only) - DHEC concerned that DET WP does not define h & v extent of lead, Jed then provided fig to PT and explained rationale for dig n haul strategy (will reword WP as necessary) - DHEC concerned about GW control during excavation, Jed said DET will stop excavation upon GW intrusion and will attempt to obtain confirmation samples before intrusion or rain events, all sampling to be done ICW CSAP
9906-M421	Jed	<p>SWMU 25 ISM WP C/RTC</p> <ul style="list-style-type: none"> - If GW comes into vault, it will be sampled and disposed of accordingly - yes, vault will be removed - DHEC requested that extent of conduit excavation be described, Jed then described - DHEC said a composite sample below vault will suffice - Jed stated that the vault and approx 1 foot of surrounding soil will be removed (extra source removal) - a few other issues discussed and resolved

DISCUSSIONS/DECISIONS (Continued)

9906-M422	Kevin	<p>CTF Update</p> <ul style="list-style-type: none"> - Tank M approx. 80% complete - 2 more tanks next - Pigging and foaming occurring now - All tanks are empty - DET task scheduled for completion late Aug 99 - Sludge in Tank O has been removed
9906-M423	Tony	<p>RAB Prep</p> <ul style="list-style-type: none"> - News release on "cancer clusters" in the CHS neck area will be discussed (Ann Reagan provided handout and briefing on findings of study ... excess of pleural [lung] cancer via occupational exposure [asbestos likely], study includes former SY workers) - More review of cancer study occurring - Tony emphasized that these cancers are "occupational" and not "environmental" - And the blue crab and shrimp consumption ban is still in affect for SY Creek (DHEC advisory)
9906-M424	Tony	<p>RAB Q&A, Aug and Apr 94</p> <ul style="list-style-type: none"> - The PT provided input to this Q&A sheet which resulted from questions by Art Pickney in 1994. Its important to note that answers were provided in 1994, yet Art has requested the Navy to update their answers (that is, any major changes occur in the last five years that may affect your answers to our concerns). - A total of 32 questions were provided by Art. - Key issues revolved around cleanup levels, background determination, USTs, fact sheets, and a few others.
9906-M425	Eric	<p>Zone F RFI C/RTC</p> <ul style="list-style-type: none"> - Please refer to handout provided. - Obtain results of water qualitative results from the North Charleston water system ... not necessary to analyze water from them (just use their existing sampling and analysis results).
9906-M426	Mihir	<p>ISM Concern</p> <ul style="list-style-type: none"> - Mihir expressed concern about the current sampling strategy for ISMs. - As resolution, please refer to Action Item 9906-A242.
9906-M427	Mihir	<p>Zone F AOC 607</p> <ul style="list-style-type: none"> - Mihir questioned why a TS was being conducted at AOC 607, he felt that a remedial system with demonstrated effectiveness (such as SVE) should be directly installed minus any TS work ... why not just call the TS the final remedy and be done with it - Larry responded by briefly re-stating the purpose of the TS as well as its objective, and how the TS fits into the overall CMS process - Larry also requested that Mihir review the AOC 607 TS WP for further explanation as to the purpose and value of the TS in the CMS process

DISCUSSIONS/DECISIONS (Continued)

9906-M428	Joe	<p>RAB Debrief Plus</p> <ul style="list-style-type: none"> - David's and Gabe's presentation, informational and well received - Ann's briefing on the cancer cluster study - Dann's response (pointed out potential legal problems) to Lou's Q regarding EPA/DHEC position on transition (new contract) - Tony's response during panel discussion - CTF poster <p>Negative</p> <ul style="list-style-type: none"> - Lack of community participation (1 person) - Mail (RAB reminder) went out late - SWMU 166, no figure during presentation - Body language, folded arms, during presentation - Could have mentioned concrete and CTF - UST slide had way to much print and info - Acronyms - Wasted effort, no community members care - Better visuals during presentation - Lou cut off Dann's response to EPA/DHEC position on new contract
9906-M429	Larry	<p>CMS WP Streamlining</p> <ul style="list-style-type: none"> - Larry presented the pros and cons associated with CMS WP's and proposed the elimination of the WP as we know of it (Zones H, A, and C style CMS WPS will NOT be produced for pending CMS zones or sites) - Consensus: On a site-by-site basis, a memo may be submitted to DHEC/EPA to fulfill the DHEC (and RCRA permit) requirement for a CMS WP. The memo will contain the objective of the CMS, will reference the Comprehensive CMS Work and Project Management Plans, and will identify the process to close any "CMS" data gaps, if applicable. For any data gaps that are identified as "RFI" data gaps (and thus not necessary to complete the CMS) at the completion of the RFI, additional RFI sampling will be scoped and commence, and an addendum to the RFI report will be issued. The RFI data gap issue is NOT to be resolved in the CMS.
9906-M430	David	<p>CAMP Update</p> <ul style="list-style-type: none"> - CAMP (RFI, CMS, ISM, EBST/FOST) was revised with input from team members - Revised CAMP will be distributed to team members
9906-M431	Todd	<p>Zone L RFI General Comments</p> <ul style="list-style-type: none"> - Rail line; PAHs and pesticides mostly - Sewer line; nothing of significance except in area where sewer line cut across existing AOCs or SWMUs with known contamination - Therefore, EnSafe recommends that the reviewer of the Zone L RFI report keep the above facts in mind during report review

DISCUSSIONS/DECISIONS (Continued)

9906-M432	Tony	<p>New Contract Item List</p> <ul style="list-style-type: none"> - Handout provided - Tony discussed the different types of deliverables expected by the new contractor - The Navy intends to separate sites and activities into those that can be completed (or most of it) by the transition period, and those that can't (that latter work will be executed by the new contractor) - The bidders will be provided with a bid package and Appendix C-1 will list RCRA sites requiring CA
9906-M433	Todd	<p>Tech Memo, GW Inorganics Study</p> <ul style="list-style-type: none"> - Handout provided - Todd discussed the results of the past meeting in Columbia (Todd, Craig S., Paul, Johnnie) ... a list of decision rules were developed - Re-sampled about 20 problematic wells across the base ... analyzed inorganics in the filtered and unfiltered samples, and TSS in the unfiltered sample also ... check for correlation between the F and U samples and TSS value - Upon completion of study 1) not much difference between filtered and unfiltered samples 2) however, there was a difference between samples obtained via low flow (<1 gpm) and via regular flow procurement though - So Todd developed another set of decision rules ... sampling method plays a much larger role in dictating the results of inorganics in GW sampled at the base then whether the sample was filtered or not - Example; 13 of 16 problematic wells contained thallium > MCL (via regular sampling process), yet only 1 of 26 wells detected thallium via the low flow sampling process (and all were < MCL) - This memo will be discussed at EnSafe on 13 Jul?
9906-M434	Mihir	<p>SWMU 166</p> <ul style="list-style-type: none"> - Mihir and Paul were concerned about the re-location of the TS system (about 150 feet south of the conceptually planned area) and about its size (about 50 to 70% smaller than its conceptual size) - Larry suggested a conference call between EnSafe, SDIV, DHEC and EPA to resolve DHEC concerns. The conference call will include the TS system designers and GW modeling folks who will be able to provide a response to DHEC concerns
9906-M435	Tony	<p>Next Meeting</p> <ul style="list-style-type: none"> - Leader will be Todd - Potential agenda items includes SMDP on screening list (NOAA, EPA, F&W, DNR), FOST approval process, out sourcing , SWMU 39, etc.
9906-M436	Joe	<p>Wrap Up and Close Out Plus</p> <ul style="list-style-type: none"> - New members are up to speed quick - Field trip to sites - CMS WP memo, new and effective way of doing business - Adding faces to voices (new DHEC staff) - New member addition - Flourescent lights - CTF site visit

DISCUSSIONS/DECISIONS (Continued)

9906-M436 (Continued)	Joe	<p>Negative</p> <ul style="list-style-type: none"> - To many DHEC personnel at table, need to identify when a certain DHEC person is required and then extend invite to table - RAB community input was a disappointment - More questions than answers - RAB mailing list not receiving RAB meeting agenda
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Action Items

9906-A237	Tony	Forward BRAC symbol to Todd for PT banner (electric version requested). By 25 Jun.
9906-A238	Larry	In search of resumes from: Todd, Ann, Tony, David. Will assemble and forward to PT upon receipt. By 4 Jul.
9906-A239	Tony	Provide building close outs for asbestos to Ann. By 19 Jun.
9906-A240	Tony	Revise 2 sets of RAB questions and forward to PT for quick check/comment and then will forward to RAB. By 21 Jun.
9906-A241	David	Change F to E in RCRA Permit. Regarding AOC 621. By 15 Aug.
9906-A242	David	Fax data points to Mihir for AOC 621 ISM WP. By 25 Jun.
9906-A243	Todd	Conduct meeting in CAE to discuss Zones F & G RFI comments. Coordinate meeting for 30 Jun 99 (0930) and include Todd, Craig S., and DHEC. Todd is to prepare a complete set of responses prior to meeting. May also discuss Zone I RFI, GEL 15 area, and Tech Memo for GW inorganics. Prior to meeting on 30 Jun.
9906-A244	Dann	Have Tiki contact Tony regarding RAB. By 4 Jul.
9906-A245	Larry	Conference call on SWMU 166 (to address DHEC concerns regarding TS system location and scale). By 15 Jun.
9906-A246	Dann	Check into EPA approval response letter requirements. By 25 Jun.
9906-A247	Todd	Conduct meeting at EnSafe office regarding Tech Memo (inorganics in GW study). Meeting at 1 PM on 13 Jul. Prior to meeting on 13 Jul.
9906-A248	Mihir	NG Drill (as in "new guy" drill). Bring 10 lbs steamed and seasoned shrimp to next PT meeting. Crackers and cocktail sauce mandatory. Napkins provided by SDIV. By 10 Aug.

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 24 to 25 Aug 99

Place: NH-C/Project Team Room

Time: 0800 - 1700

Attendees: Tony Hunt (SDIV); Paul Bergstrand, Mihir Mehta, Charles Watson, Eric Cathcart, Susan Byrd, Susan Peterson (DHEC); Dann Spariosu (USEPA); Todd Haverkost, Charlie Vernoy, Larry Bowers (EnSafe); Joe Land (CLD)

Invited Guests: Kevin Tunstall (DET); Ted Blahnik, Don Schroeder, Greg Temple (EnSafe)

Leader: Todd Haverkost

Scribe: Larry Bowers

DISCUSSIONS/DECISIONS

9908-M437	Todd	<p>Check-in</p> <ul style="list-style-type: none"> - Review of ground rules. - Check in of PT members.
9908-M438	Tony	<p>Administrative Details</p> <ul style="list-style-type: none"> - There are new restroom assignments (now have separate men and women restrooms). - There is a 50 cent cost for all items in kitchen. - There has been no selection for the replacement of David Dodds as the Navy's RPM.
9908-M439	Todd	<p>Jun PT Meeting AI Follow Up</p> <ul style="list-style-type: none"> - A237, scratched, NA - A238, scratched, NA - A239, completed - A240, one set of questions completed, the other being worked - A241, completed - A242, completed - A243, completed - A244, completed - A245, completed - A246, completed - A247, completed - A248, still waiting on NG to deliver the goods

DISCUSSIONS/DECISIONS (Continued)

9908-M441	Mihir	<p>Document Submittal Process</p> <ul style="list-style-type: none"> - Three (3) copies of major deliverables (RFI, CMS, etc.) need to be provided to DHEC (for engineer, hydrogeologist, and file); all 3 copies are to be directed to Mihir. Note that the official cover letter should be addressed to John Litton while the package needs to be mailed direct to Mihir. - Regarding emails; feel free to email direct to Paul and Mihir at any time. Or to any other DHEC person (ensure you copy Paul and Mihir though). - Regarding telephone calls; feel free to call any DHEC person at any time. - Please refer to 9908-M445.
9908-M442	Mihir	<p>Bi-weekly Update on Field Activities</p> <ul style="list-style-type: none"> - Handout provided. - DHEC requests that a bi-weekly update on field activities be completed and forwarded to DHEC (for informational and oversight purposes). DHEC would like to know what "field work" is in the pipeline for <u>the pending 2 weeks only</u>. - All pending field work requires reporting; this includes any field work pending for the RFI, ISM, PS, or CMS. - EnSafe comment; we can comply but do note that some field work changes occur at the last minute and are beyond our control. Therefore, work could be "added" or "deleted" at the last minute. DHEC stated they understood this possibility and that this was acceptable.
9908-M443	Kevin	<p>DET Update</p> <ul style="list-style-type: none"> - Handout provided. - DET will stand down on 11 Sep 99. - DET will officially become part of SCRA on 13 Sep 99. - A few former DET workers will remain on the gov't payroll at the base (for 3 to 6 months) to attain full retirement status. - SWMU 9 topo survey also includes the SWMU 8 area. EnSafe needs this info to complete the revised Combined SWMU 9 CMS. - All DET ISM Completion Reports are scheduled for completion on 10 Sep 99, prior to DET stand down.
9908-M444	Paul	<p>GW Monitoring</p> <ul style="list-style-type: none"> - Handout provided. - DHEC provided a list of approx. 13 sites that are recommended for quarterly monitoring. - Todd stated that EnSafe currently has a very similar list. The two lists can be tied together and presented to the PT for approval. - Tony stated that the Navy is still considering the possibility of mixing zones for certain areas. The Navy would also like to look for additional areas where wells are no longer necessary (though this effort has been completed before in the past). - Todd and Paul will take an existing EnSafe spreadsheet and modify to specific DHEC requested parameters. - This issue will be revisited and the final "updated" list will be subject to PT consensus. A basewide well figure will be provided at that time also.

DISCUSSIONS/DECISIONS (Continued)

9908-M445	Mihir	<p>Document Revisions and C/RTC Resolution</p> <ul style="list-style-type: none"> - Todd informed Mihir of current process, and history behind it. - PT agreed that revised documents will consist of "highlighted revisions." Three revised documents (per 9908-M441) will be submitted to DHEC. And of the 3 revised copies submitted, only 2 will contain highlighted revised text. The third copy will contain revisions also but the revisions will NOT be highlighted. Please refer to "Consensus Items" list in these minutes. - In regards to C/RTC, DHEC would like for a meeting (other than the PT meeting) or a conference call to occur to resolve all DHEC comments. - EnSafe and Navy reminded DHEC that the Technical Subcommittee meetings of the past were specifically started for that purpose. The PT concurred with DHEC's request. Please refer to "Consensus Items" list in these minutes.
9908-M446	Mihir	<p>CMS/SOB Strategy</p> <ul style="list-style-type: none"> - A meeting will be held at DHEC HQ on 13 Sep 99 to discuss the RFI/CMS strategy (eg, prioritization and new contract transitioning). - Mihir expressed concern about scoping CMS requirements before the document is submitted. Larry informed Mihir that scoping of CMS requirements is "standard operating practice" and that this practice has been complied with for all CMS documents currently in the pipeline. - CMS (and RFI) strategy is to be discussed in at the 13 Sep Columbia meeting.
9908-M447	Don	<p>SWMU 17 FP Recovery Proposal</p> <ul style="list-style-type: none"> - Todd provided a brief history for DHEC of the proposal effort. - DHEC expressed concern about the new contract, and thus their need to ensure the permittee closely follows the permit requirements. - DHEC requested the following: <ul style="list-style-type: none"> - The FP recovery proposal needs to be submitted as a "formal" document, therefore it will be revised and submitted to DHEC as a CMS WP addendum. The proposed work will be separated into two documents. Additional site characterization work will be titled a CMS WP addendum and the FP proposal effort will be titled a pilot study proposal. - Note that DHEC has requested that ALL "treatability studies" be called "pilot studies." - DHEC felt that the proposed study was too long in duration and thus it was an ISM and not a pilot study. DHEC feels the FP recovery pilot study should last a matter of weeks and not months. EnSafe will clarify the expected volume of FP recovery. If volume is limited, then DHEC is more accepting of the proposal as a pilot study and not ISM. - Contamination contours with representative tables will be included. - Include additional wells in an area of the site indicated on a figure by Paul. Requested additional dnapl/lnapl investigation. Also requested additional investigation for a site AST and its associated piping.

DISCUSSIONS/DECISIONS (Continued)

9908-M448	Todd	<p>SWMU 12 Revisited</p> <ul style="list-style-type: none"> - Handout provided. - An ariel foto that was provided to the PT showed the FF training area about 200 to 400 yards north of where it currently is thought to be. - EnSafe completed extensive hand augering in the "new" area and did NOT find any evidence of SWMU 12. - Note that G & Miller conducted similar sampling in the late 80's and could not find anything either. - This still does not explain the high arsenic GW hits in the former SWMU 12 area - the contractor lay down area. - Two action items were generated from this discussion (update SWMU 12 memo and contact Dr. M. regarding basewide inorganics). Refer to Action Item list in these minutes.
9908-M449	Ted	<p>AOC 607 Update</p> <ul style="list-style-type: none"> - Handout provided. - TS (dewatering/dual-phase extraction) is one half completed. - SVE system is being installed right now for true dual phase extraction. - Ted provided the following tables/figures: GW flow rate, dewatering depth, influent vapor results, influent GW results, and source area trend data. He described the current objectives of the study and how they relate to the overall CMS process.
9908-M450	Ted	<p>SWMU 166 Update</p> <ul style="list-style-type: none"> - We currently have some contractor issues that have yet to be fully resolved. Upon resolution (soon), we can complete the above ground plumbing and tie-in the rest of the system. - However, we expect to have the plumbing completed shortly after Labor day and the system should be up and running by mid/late Sep. - Todd commented about sampling downstream (offsite ditch associated with interstate - ND for solvents but some TICs associated with hydrocarbons were identified. Likely runoff from freeway and parking lots.
9908-M451	Don	<p>GEL 15</p> <ul style="list-style-type: none"> - DHEC requested the following revisions to the GEL 15 proposal: - GEL 15 will continue to be handled separately from SWMU 9. Issue a RFI WP addendum (Zone H) to address characterization issues. - Include contaminant maps (iso concentration maps). - Justify proposed well locations. - Address HH and eco risk, fate and xport. - Review boring logs to ensure site is not part of landfill. - Justify the reason why upgradient sampling is not being proposed. - Therefore, GEL 15 will receive AOC designation and will be further investigated as part of the Zone H RFI. - CMS will follow behind completion of addendum RFI work.

DISCUSSIONS/DECISIONS (Continued)

9908-M452	Don	<p>SWMU 136/AOC 663</p> <ul style="list-style-type: none"> - DHEC requested the following revisions to the Tech Memo: - In order to gain DHEC approval for NFA, the memo needs to address HH and eco risk as it relates to BG. Arsenic in soil and benzene and BEHP for GW are the COCs to address at this site. Provide figures (risk, etc.) as necessary to fully describe site. - Site specific SSL needs to be addressed (see SSL discussion in these minutes). - Clarify BEHP and field blank issue. The Navy needs to provide more proof that BEHP is indeed a lab artifact. Todd and CV have some additional information that will support this cause. - Clarify SWMU 136 location on site figure. Todd provided a photograph/figure showing this SWMU.
9908-M453	Team	<p>Monthly PT Meetings</p> <ul style="list-style-type: none"> - The following meeting dates were established by the PT. Note that the PT agreed to <u>go back to a once per month meeting frequency up until Dec</u> when the contract transition occurs. - 13 Sep, Columbia; RFI/CMS prioritization meeting. - 28/29 Sep, Columbia; PT meeting. - 13/14 Oct, Charleston; PT meeting. - 9/10 Nov, Columbia; PT meeting. - 14/15 Dec, Charleston; PT meeting.
9908-M454	Todd	<p>Graphical Presentation of RFI Data</p> <ul style="list-style-type: none"> - Mihir stated that DHEC feels there is not enough information provided to make decisions for RFI Zones E, L, K. He also does not feel that DHEC should have to redo figures or make their own figures just to interpret the data. - Todd provided a handout example, Zone G site AOC 642. DHEC provided praise for the way the data was presented on this handout (eg, overlays of previous sites). - Todd stated that the RFI reports will be revised as follows: 1) the intro. text will be revised to inform the reader of site location specifics without having to refer the reader back to RFA, and 2) figures will be revised to provide historical versus current perspective, as applicable. - Mihir stated that DHEC wants to see isoconcentration contours for soil. Todd provided some background history regarding the team's approach defining what is a "soil concentration contour." Iso lines can not be drawn around sample points that are obviously not representative of a site-related source or concentration gradient. Color coding has been used to indicate concentration ranges for sample points and certain COCs. The color coding typically corresponds to some range of risk or haz or some other regulatory level exceedance. Refer to the action item list.

DISCUSSIONS/DECISIONS (Continued)

9908-M455	Mihir	<p>Site Specific SSL</p> <ul style="list-style-type: none"> - DHEC stated that a 20 or 10 DAF is not acceptable ... a 1 or site specific (SS) DAF is acceptable though. Note however, that a SS SSL exceedance does not indicate that corrective action is necessarily required. DHEC also feels that the Navy has the data they need to conduct SS SSL at most of the important sites. - Todd informed DHEC that SS data has been collected for only those sites where the generic SSL is exceeded. These sites are considered the important sites. - Please refer to Consensus Item list for resolution of SSL issue. - Todd also agreed to include a COC refinement section prior to the conclusion section of all future RFI reports.
9908-M456	Greg	<p>Zone E RFI Comments/RTC Resolution</p> <ul style="list-style-type: none"> - Greg (EnSafe) discussed his RTC's with DHEC comment writers (Charles Watson, Eric Cathcart, Susan Byrd). The following minutes record only those items that required table top resolution. All other RTC's were considered acceptable by DHEC. Some of the below comments may not be correctly numbered. - The issue regarding residential and industrial RBC comparisons in the Zone E RFI was clarified by Greg. Tony stated that the Navy's (and RDA) position was that Zone E is considered for industrial reuse because of its past and current, and likely future tenants. And because of the nature of the CIA. It's a shipyard industrial area surrounded by shops and dry docks. - EnSafe will provide an Executive Summary upfront (like with Zone H) for all subsequent revised reports. - Charles' Comments - all resolved. - Eric's Comments as follows: <ul style="list-style-type: none"> - C1; DHEC still needs to see results of water sampling from NCSO. - C9; DHEC wants to know what "type" of product was located in well 65-06. - C15 and 15; pH issue will receive additional monitoring attention. - C37; to be discussed with Susan Byrd next. - C43; EnSafe will recheck as-built drawings to confirm tank location. - Susan's Comments as follows: <ul style="list-style-type: none"> - C1; BG issue with samples > RBC. Surface to surface BG, and subsurf to subsurf BG comparisons only. - C2; can EnSafe provide text stating how risk is affected in subsequent rounds seeming risk is calculated from first quarter data only. - C3; combine tables please. Concur, as Zone L was done this way. - C4; response should state residential. - C5; ISM for SWMU 5, 18 and AOC 605 - prove that no risk remains. - C15; will clarify text regarding potential human contact with Cooper River sediment. - General comment regarding AOC 621 - EnSafe agrees to obtain additional soil samples for pesticides and will revise memo (Zone E RFI WP addendum).

DISCUSSIONS/DECISIONS (Continued)

9908-M457	Charlie	<p>Zone L RFI Comments/RTC Resolution</p> <ul style="list-style-type: none"> - Charlie (EnSafe) discussed his RTC's with DHEC comment writers (Paul Bergstrand, Mihir Mehta, Charles Watson, Eric Cathcart, Susan Byrd, Susan Paterson). The following minutes record only those items that required table top resolution. All other RTC's were considered acceptable by DHEC. Some of the below comments may not be correctly numbered. Note that these are cursory comments with the final version yet to arrive. - C7; data will be represented to include all nearby surrounding sample points, therefore Zone L will become a stand alone RFI. - C10; will change response based on this morning's conversation, refer to consensus item. - General comment regarding "one hit wonders." DHEC says they should be addressed as you do for a regular RFI. Todd stated that these stand alone hits should be resolved on a case by case basis. - C12; turbidity info will be deleted. - C14, 17, 18, 19, 22; responses will all be revised per today's discussion. - Charles W. and Susan B. and Eric C. - all is OK if RTC are revised per today's agreements. - Susan P. C 5; EnSafe will revise RTC. - Paul C1; look at all OWS.
9908-M458	Joe	<p>Next Meeting</p> <ul style="list-style-type: none"> - Leader will be Tony. - Time keeper will be Eric.
9908-M459	Joe	<p>Wrap Up and Close Out</p> <p><u>Plus</u></p> <ul style="list-style-type: none"> - Resolved Zone E issues fairly quickly. - Facilitator and timing. - Reaching decisions. - Clarifying issues. - Turnover of personnel, resolving concerns/issues. - Dealing with decision revisitation. - Framework for change is still moving forward. - Agreed to revisit past issues when necessary. - Candy. - More bathrooms. - Paul's GW table. - Handled a lot of conflict well. <p><u>Negative</u></p> <ul style="list-style-type: none"> - Hot. - We need to speak as a "team" and not as a "solo" force. - Posturing. - Can't hear/understand people. - Hidden agendas. - Revisiting prior decisions. - Using past decisions as reason for not rectifying problems. - DHEC not acknowledged in some areas. - Lack of attention from team members. - Heavy agenda late in day and on last day. - Spun out in Zone L.

Action Items

9908-A249	Todd	Update GW monitoring spreadsheet and well figure (with input from Paul). By 17 Sep.
9908-A250	Don	SWMU 17 FP Recovery Proposal - Revise per DHEC comments and in the form of two documents. Site characterization needs (doc 1 as a CMS WP addendum) and pilot study needs (doc 2 as a Pilot Study Proposal). By 17 Sep.
9908-A251	Todd	Summarize recent SWMU 12 findings (that the site has yet to still be located based on sampling). By next PT meeting.
9908-A252	Tony	Contact Dr. M. regarding base-wide study on inorganics in GW. By next PT meeting.
9908-A253	Dann	Send Fed register reference regarding RCRA new rules to Mihir. By 1 Sep.
9908-A254	Tony	Discuss soil contamination delineation maps with DHEC. Open date.
9908-A255	Mihir	Provide info for uncertainty discussion for COC refinement text. By 1 Sep.
9908-A256	Todd	Re-plot and distribute base-wide arsenic GW map. Forward to DHEC. By 27 Aug.

Consensus Items

9908-C1	C/RTC Resolution - Conduct Technical Subcommittee Meetings and/or conference calls for all C/RTC resolutions.
9908-C2	Team Communication - Increase team communication between meetings; via email, phone, letters, etc.
9908-C3	SS SSL - Compare max subsurface sample [] to generic SSL (DAF 1). If sample [] > generic SSL, then calculate SS SSL (using new DAF, SS TOC, SPLP, infiltration rate and soil properties). If sample [] > SS SSL, then it IS a fate and xport COC. If sample [] < SS SSL, then it is NOT a fate and xport COC. A COC refinement section will be included in all subsequent RFI reports prior to the conclusions section.
9908-C4	Zone L - If the results at a sample location in Zone L are < than the results of an associated AOC/SWMU, then recommend site for CMS. If > then calculate risk at that location in Zone L.
9908-C5	Submittal of Revised Documents - Three copies are required. Two copies are to have the revised text highlighted and the third copy will not have its revised text highlighted. All three copies are to be sent direct to Mihir even the official cover letter should be addressed to John Litton at DHEC.

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 28 to 29 Sep 99 **Place:** DHEC HQ Farrow Road, Columbia **Time:** 0800 - 1700

Attendees: Tony Hunt (SDIV); Paul Bergstrand, Mihir Mehta, Charles Watson, Eric Cathcart, Susan Byrd, Susan Peterson, Mike Danielsen, Anne Clark (DHEC); Dann Spariosu (USEPA); Todd Haverkost, Charlie Vernoy, Larry Bowers (EnSafe)

Invited Guests: David Scaturro, Melissa King (DHEC); Dr. June Mirecki (College of Charleston); Craig Smith, Steve Parker, Fred Erdmann (EnSafe)

Leader: Tony Hunt

Scribe: Larry Bowers

DISCUSSIONS

9909-M460	Tony	Check-in <ul style="list-style-type: none">- Review of ground rules.- Check in and introduction of PT members.- Revise and check meeting agenda.
9909-M461	Mihir	DHEC Request <ul style="list-style-type: none">- Mihir requested that EnSafe provide a risk assessment person for certain PT meetings, as appropriate.- Todd obliged and stated that EnSafe's lead risk assessor, Pei, will be present when requested and as necessary to support the PT.

9909-M462	Todd	<p>SS SSL Discussion</p> <ul style="list-style-type: none"> - Handout provided. - A Zone F SS (site-specific) SSL table was provided to the PT for review and comment. Todd reminded the team that the SSL tables in the revised RFI's will be using some parameters that are slightly different than what was presented in the earlier RFI due to recent USEPA changes of some parameters. Note that SS (really zone-specific) physical and hydrogeologic parameters were used for the example. - EnSafe used max and min values to develop zone high and zone low DAF values. - The handout showed that most SS SSL's were several factors (and sometimes an order of magnitude or several greater) than the generic SSL (DAF=1). - Mihir espoused 3 possible options for dealing with SSL: <ul style="list-style-type: none"> - 1) calculate each SS SSL, or 2) take the low value (of DAF?) and apply it to the entire site (zone?), or 3) separate zone into several areas and calculate area-specific DAFs. - Todd questioned whether the use of the data from 10% of the existing wells would suffice to cover the various soil types within the investigated zone. Mihir felt that a certain % did not matter, just ensure that you select wells that adequately cover all variables within the zone. Thus a professional judgment call is required. - Todd reminded the PT that for the "Big Picture" ... whatever DAF is calculated for the zone or TOC for the zone, if the site fails the SSL we then need to go to SPLP for truly representative empirical data. - SS SSL process consensus. Refer to Consensus Item No.6 at the end of these minutes.
9909-M463	Paul	<p>AOC 689 Monitoring Parameters</p> <ul style="list-style-type: none"> - Boiler at Naval Annex. Site has one well and some DPT work. - Paul would like to see pest/svoc/metals added to existing sampling site. - PT then discussed LT monitoring requirements and "one hit wonders," in a general sense. - Paul referenced the "well list" he presented during last week's PT meeting. The PT confirmed that these listed wells, in addition to others yet identified, will likely require LT monitoring (t and f yet TBD). - Todd stated that EnSafe is waiting on TetraTech to provide their well data (approx. 200 wells) before EnSafe and the Navy sit down to discuss which wells are likely candidates for LT monitoring. Wells from the Navy UST program will be considered also. - Mihir then stated that DHEC would also like to see a yearly summary of off-site GW migration factors (e.g., site, COC). Todd responded by stating that the LT GW monitoring network/plan that is soon to be proposed by EnSafe and the Navy will suffice for this State request.

9909-M464	Todd	<p>Site Boundary Discussion</p> <ul style="list-style-type: none"> - Handout provided. Zone E site presented as example. - Street names, boring ID's, etc. will be dropped into final RFI product (was not in example figure). The figure was not as complete as EnSafe intended due to office disruption and evacuation caused by Hurricane Floyd. However, the figure did provide many extra details requested by DHEC during the last PT meeting. - Mihir requested that the fig show all AOC or SWMU boundaries, drains, ditches, topography that may affect fate and xport, sample locations ... yet we do need to avoid a figure that shows "to much" detail as it would likely become too confusing (so a catch 22 here). So it was agreed to move some site-specific figs from Section 10 to Section 5 of the RFI. - Figure consensus. Refer to Consensus Item No. 7 at the end of these minutes.
9909-M465	Todd	<p>N&E Figure</p> <ul style="list-style-type: none"> - The PT agreed that the N&E figure will include the boundary of the AOC/SMWU, boring locations, topography details associated with potential contaminant migration, and soil gradient based on BG or RBC (whichever is applicable for the constituent and IF a gradient is present and IF it is contourable).
9909-M466	Tony	<p>COC Delineation</p> <ul style="list-style-type: none"> - A lengthy discussion ensued regarding the "how to" of COC delineation. - General thoughts included drawing a line around area described by red triangles (certain risk or hazard accedences for individual constituents), and then contour if applicable. - COC delineation consensus. Refer to Consensus Item No. 8 at the end of these minutes.
9909-M467	Todd	<p>SWMU 39 Update</p> <ul style="list-style-type: none"> - Several new off-site wells were installed about 4 to 6 weeks past. They consist of two pairs (shallow/deep) near RR track adjacent NW property line (by SWMU 42/AOC 505) in Zone A. - One hit of DCE, otherwise the two well pairs are clean. - It was noted however, that impacted GW is likely going off site on the southern portion of SWMU 42/AOC 505. Perimeter wells just north of 42/505 were clean though. - Tony stated that the DET completed the diffusion sampling effort at SWMU 39 and some petrol hits occurred on the north end near Hess (the Hess migrating plume). No VOC's were noted on the North end, yet they were noted on the South end near SWMU 42/AOC 505. This more less confirms what the GW wells have already indicated.
9909-M468	Mihir	<p>Meeting Minute Correction</p> <ul style="list-style-type: none"> - Mihir requested that today's PT meeting minutes reflect a correction for last month's PT meeting minutes. - Correction is "GEL 15 is now referred to as SWMU 196." Correction noted.

9909-M469	Tony	<p>Outsourcing Update</p> <ul style="list-style-type: none"> - Completed Phase I of the contract - 3 proposals submitted, thus 3 contractors were short listed. CH2MHill, Arcadis G&M, and IT Corp. - The bidders have questions for the PT and there are several ways we can approach this (to keep the playing field fair for all parties). - The Navy wants the bidders to submit their Q's in writing. We will then respond in writing and all bidders will receive the same set of Q's and answers. - Phase II of the contract will occur on 3 Nov 99 which is when the bidders must submit their technical approach and cost estimate for close out of all known, unknown remaining environmental issues remaining at the base. - Oral presentations for each bidder will occur (one day each) on 8, 9, and 10 Nov. Thus we need to move the Nov PT meeting from the second to the third week of Nov (15 and 16 Nov in CAE).
9909-M470	Paul	<p>Dioxin Study</p> <ul style="list-style-type: none"> - Discussion ensued regarding dioxins, basewide statistical study (as mentioned in the Zone K RFI). - Todd informed the PT that the reference in the Draft RFI to a basewide statistical study for diox was a mistake and it should be disregarded. - Diox is detected throughout the base at very low levels, yet thresholds are low also. It is likely that any diox detected will be a risk contributor that will be discussed in COC refinement section post the BRA. It is also likely the diox will be dropped out of the COC list during this refinement section (provided valid reasons for its exclusion are presented).
9909-M471	Mihir	<p>Shrimp Roast at Mihir's House Post PT Meeting</p> <ul style="list-style-type: none"> - Host did not show up with the goods. - Guests departed rapidly and very hungry.
9909-M472	Fred	<p>Zone G Scoping (further RFI characterization)</p> <ul style="list-style-type: none"> - Handout provided. Summary of additional investigations proposed for Zone G. - General discussion ensued regarding the additional sampling proposed for SS SSL determination. - The PT agreed that a revision to the SSL process was in order. At step No. 4 for the COC refinement, we need to define N&E based on SSL. - DHEC provided conditional approval of proposed field work.
9909-M473	Craig	<p>Zone F Scoping (further RFI characterization)</p> <ul style="list-style-type: none"> - Handout provided. Summary of additional investigations proposed for Zone F. - General discussion ensued regarding the additional sampling proposed for SS SSL determination. - Charlie asked if EnSafe could complete the 2nd round of sampling prior to getting a formal DHEC approval. DHEC said it would be OK just as long as both parties are aware of the general reason for the re-sampling. - DHEC provided conditional approval of proposed field work.

9909-M474	Steve	<p>Zone K Scoping (further RFI characterization)</p> <ul style="list-style-type: none"> - Handout provided. Summary of additional investigations proposed for Zone K. - General discussion was attempted regarding the additional sampling proposed for SS SSL determination. - Mihir stated that Zone K comments were inbound (< 1 week). Therefore, EnSafe should review comments before the proposed sampling plan is submitted. Most of the comments pertain to N&E issues. The handout with the proposed sampling will be revised, accordingly, upon review of DHEC's comments.
9909-M475	Eric	<p>Method Blanks</p> <ul style="list-style-type: none"> - Charlie feels that metals found in sample blanks are due to the lab because it definitely is not coming from the NCSD. Subsequent analytics proved this out. - Charlie is also waiting on a letter from SW Labs stating the [metals] allowed in their lab blanks (e.g., the method blanks). - Eric has requested that EnSafe use lab-grade DI water for decon purposes from this point forward for all remaining sampling activities. Do not use potable water supplied by the NCSD. EnSafe concurred and agreed to this request.
9909-M476	Todd	<p>SWMU 196 (GEL 15)</p> <ul style="list-style-type: none"> - Handout provided for DHEC review. - Todd requested that DHEC review this "info summary" package and our proposal for additional work at this newly designated SWMU. The work plan was developed to address recently discovered site concerns as well as DHEC's comments from the first summary package made available during early summer 99. - EnSafe requested that DHEC provide comment in particular on 1) the Work Plan goal and objectives, and 2) Work Plan format. EnSafe would like to use this simplified Work Plan format for all subsequent field work in order to expedite the review/approval process.
9909-M477	Todd	<p>SWMU 17</p> <ul style="list-style-type: none"> - Handout provided (unofficial work plan submittal). - Todd provided a brief history of SWMU 17 with respect to the RFI and CMS efforts. - The unofficial work plan is strictly a site characterization effort (for now) for GW and soil. EnSafe will NOT propose any active free product recovery until the additional characterization effort is completed. - DHEC informed the PT that Susan B. and Mike D. will provide review of the work plans for SWMUs 196 and 17.

9909-M478	Tony	<p>Inorganics in GW</p> <ul style="list-style-type: none"> - Tony briefed the PT on the history surrounding inorganics in GW at the base. - Arsenic has been located (> MCL) in GW in various locations at the base on a sporadic basis. It could be due to the sampling process or naturally occurring. - Low flow sampling and various filtering methods have been completed at 26 selected wells in an attempt to determine the cause for arsenic, and a few other problematic inorganics such as Thallium. Though the [inorganic] decreased as a result of these additional precautions, the efforts have been largely unsuccessful in dismissing the problematic inorganics. - Dann stated that we ought to check for a correlation between Arsenic and other inorganics. This will be done for existing data from the previous rounds of sampling for select wells. Obviously, the elevated presence of suspended solids would lead to an increase in all inorganics analyzed for. - <u>Dr. June Mirecki (guest - College of Charleston)</u> informed the PT of her extensive review of GW data at the base which is one of her research projects she is directing for the College. A few points of interest from Dr. Mirecki: <ul style="list-style-type: none"> 1) she has not seen any “arsenic plumes” based on the current arsenic distribution in GW, 2) the species of arsenic and other metals could be influenced by redox potential, 3) the existing GW data {number of data events and number of wells} is more than adequate in evaluating the inorganics issue, and 4) she also stated that the really “Big Question” should be “Are the arsenic values actually high enough above BG to warrant any remedial attention?”
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ACTION ITEMS

9909-A257	Todd/Tony	Update PT on LT GW monitoring plan. By next PT meeting, 13 Oct.
9909-A258	Tony	Check into availability of diffusion sampling results (DET). By next PT meeting, 13 Oct.
9909-A259	Todd	Provide boring logs for wells at AOCs 607, 609, 613 and SWMU 109 (by Todd via Craig). By next PT meeting, 13 Oct.
9909-A260	Todd	Provide field pH data for AOC 617, plate and galvanizing shop (by Todd via Craig). By next PT meeting, 13 Oct.
9909-A261	Susan P. and Mike	Provide comments on draft WP for SWMUs 17 and 196 (formerly GEL 15). By 6 Oct 99.
9909-A262	Dr. Mirecki	Generate additional arsenic impacted GW site figures that show temporal variations. By next PT meeting, 13 Oct.
9909-A263	Todd	Provide a list of sites (basewide) which may have been involved with arsenic producing processes (e.g., potential anthropogenic sources of Arsenic such as Arsenic containing pesticides used at the golf course). By late Oct.

CONSENSUS ITEMS

9909-C6	<p>SS SSL Process - 1) Calculate DAF's and determine zone TOC, discuss in RFI, 2) generate compound tables for each zone then calculate SS SSL {the Todd table handed out at the beginning of the PT meeting}, 3) Based on table in step No. 2, compare site constituents to zone calculated values for defining COPC's {max values}, define N&E based on SSL, 4) perform SPLP on constituents that fail SSL screening {for eventual COC development}.</p> <p>Steps No. 1 and 2 will be completed in Section 6 of the RFI. Steps 3 and 4 will be completed in Sections 5 and 10 of the RFI, respectively.</p> <p>EnSafe selects DAF and TOC and justifies reasons for their selection. DHEC approves this approach.</p> <p>Note that for Zones E, F, and G; soils are heterogenous and several values are likely. Note that Zone K; soils are homogenous (sandy more or less) and a single value is likely.</p>
9909-C7	Figure Specifics - Some site specific figures will be moved from section 10 to 5 in the RFI.
9909-C8	COC Delineation - EnSafe will complete figures based on the general discussion at this PT meeting. DHEC will approve figures if they feel the COC is adequately delineated based on COC characteristics and unique site conditions.

**Naval Base Charleston
Environmental Cleanup Project Team
Meeting Minutes**

Date: 13 to 14 Oct 99 **Place:** NH-C/Project Team Room **Time:** 0800 - 1700

Attendees: Tony Hunt (SDIV); Paul Bergstrand, Mihir Mehta, Charles Watson, Susan Peterson (DHEC); Dann Spariosu (USEPA); Todd Haverkost, Charlie Vernoy, Larry Bowers (EnSafe); Joe Land (CLD)

Invited Guests: Charlie Black, Gabe Magwood (SDIV); David Scaturro (DHEC); Pei Fung, Steve Parker, Greg Temple, Keith Johns (EnSafe), Lanny Diasio (SCRA - former DET)

Leader: Mihir Mehta

Scribe: Larry Bowers

DISCUSSIONS

9910-M479	Joe	<p>Check-in</p> <ul style="list-style-type: none"> - Review of ground rules. - Check-in and introduction of PT members. - Revise and check meeting agenda.
9910-M480	Mihir	<p>Meeting Minute Correction</p> <ul style="list-style-type: none"> - Mihir requested that today's PT meeting minutes reflect a correction for last month's PT meeting minutes. - Corrections are noted as: 1) Action Item A261 is <i>completed</i>, 2) Page 2 of the minutes under SSL discussion under bullet six ... <i>apply DAF to zone, site or area as appropriate</i>, and 3) Page 7 of the minutes ... <i>Zone K soils are not necessarily homogeneous (per DHEC - this statement should not be under a "consensus category) ... yet Larry explained to Mihir that the statement was merely a subjective term for Zone K soils to be used in conjunction with comparisons to other zone soils such as the more heterogenous soils typically located in Zones F, G and E ... it was not meant as a consensus statement and thus an error on part of the scribe.</i>
9910-M481	Tony	<p>Action Item Follow up</p> <ul style="list-style-type: none"> - A257; on this meeting agenda. - A258; info should be out and available, the DET has distributed it, will re-check. - A259; being worked, will complete this week. - A260; we have info but Craig has not yet provided to Todd, will re-check. - A261; parking lot item for this meeting. - A262; on this meeting agenda. - A263; on this meeting agenda.

9910-M482	Mihir	<p>DHEC Where Abouts</p> <ul style="list-style-type: none"> - 10 Jan to end of Jan; Mihir on vacation. - 24 Dec to 7 Jan; Paul on vacation.
9910-M483	Tony	<p>RAB Debrief</p> <ul style="list-style-type: none"> - Very poor showing, again (1 RAB member present and only a few community members present). - Discussion ensued regarding RAB membership (and retention) strategy; possibly change meeting place seeming the controversial CTF closure has been resolved and local community members are not really interested in nonCTF issues. - RAB will definitely have more of an interest during the CMS process when their input (and the public's input) will be solicited for final site remedies. - Navy would like to send out reminders that the CMS is on the way and RAB/community input will be requested. - Tony and Keith Johns (EnSafe) are currently considering other strategies to garner more public interest in CNC BRAC activities. - Tony suggested that the PT wait till 2000 (Jan) before any new RAB-related decisions or changes are made. The upcoming holidays will only counter any changes made now and past history indicates that RAB involvement is very limited during the holiday season. - Larry stated that RAB and public interest will likely increase as the study turns to remedial alternative evaluation and selection (CMS and subsequent SOB).
9910-M484	Todd	<p>GW Monitoring Plan</p> <ul style="list-style-type: none"> - Hand out provided (3 figures showing well locations and well inventory spread sheet as of 9 Oct 99). EnSafe as well as non EnSafe wells are depicted. - Objective; determine which wells should go into a LT monitoring plan. - Since last PT meeting, EnSafe has rec'd survey data for 159 of about 200 new TetraTech (TT) wells. This info was incorporated into the figure and will have to be revised when the remaining TT wells are surveyed. - Consensus objective of GW monitoring plan: 1) to monitor known off base migration, 2) to monitor migration of impacted GW to SW, 3) to monitor wells with known GW problems, 4) for sites with confirmed GW problems, to monitor until CA is in place, and 5) to facilitate decision whether further CA is necessary or NFA. This PT consensus item is repeated at the end of these minutes. - Todd's handout provided 4 work sheets (wells req additional characterization as of 9 Oct 99, wells req quarterly monitoring, and wells req bi-annual and annual monitoring). - Primary steps in the implementation of such a LT monitoring plan is: develop inventory and determine sites and specific wells to monitor, freq of monitoring and analytes, and exist strategy. - Discussion ensued regarding LT monitoring; an RFI or CMS decision? DHEC stated it was a RFI decision and SDIV disagreed. USEPA said it mattered not (that is, its not necessary to classify LT monitoring as part of the RFI or CMS process - just do whatever is necessary to gain closure at the site).

9910-M485	Todd	<p>SSL Refinement</p> <ul style="list-style-type: none"> - Last meeting we discussed area vs SS SSL. - Two primary issues are TOC data for soil/water partition coefficient and DAF. - Via Barry Doll (EnSafe); carbon data for an entire zone is extremely variable ... therefore it is proposed to use the lower confidence limit of the geometrical mean of say 7 to 8 samples per each site. Basically its easier and more accurate to provide SS carbon data as opposed to zone or area specific carbon data as we discussed during the last PT meeting. - In summary: carbon data for each site will be used to determine SS soil/water part. coefficients ... but DAF will not be SS (per figure of soil types) ... 2 DAFs will be sufficient for Zone E but other zones may require several DAFs ... organic data varies widely at CNC while conductivity does not ... therefore, SITE SPECIFIC TOC (statistical based) versus AREA SPECIFIC DAF (area characteristic based).
9910-M486	Todd	<p>AOC 611 Example Figs for RFI</p> <ul style="list-style-type: none"> - Handout provided. - Todd presented several (about 8) figures to the PT. The site figures consisted of aerial photographs overlaid by the current or former RFI site, overland water flow direction arrows, adjoining sites and zones, subsurface utilities, site and adjacent site sample points, and surface and subsurface COCs delineated to specific thresholds such as BG and RBCs. - DHEC requested a few modifications to the figure 1 (please include adjacent zones, date aerial foto if known, etc.). EnSafe concurred. Other figures were fine with the PT and well received. - These figures represent the general figures that will be presented in the revised RFIs.
9910-M487	Project Team	<p>Data Gap Discussion</p> <ul style="list-style-type: none"> - RFI Data Gap; data that could change the risk calculation and RFI completion (that is, risk, f&t, n&e). - CMS Data Gap; data that could affect engineering calculations for the purpose of evaluating potential remedial alternatives (that is, volume, surface area). - Mihir stated the RFI should sum up the DET ISM and its compliance with RFI RGOs. If the ISM satisfies the RGOs then a NFA statement in the RFI is acceptable ... CMS not required but a SOB stating NFA would be required so as to provide an avenue for public comment. This is a PT consensus item, please refer to back of these minutes.

9910-M488	Greg	<p>Zone E RFI Additional Field Work Scoping</p> <ul style="list-style-type: none"> - Handout provided (site summary, site figures and proposed sampling summary table). - Additional work has been proposed in Zone E because of 1) DHEC comments requested additional sampling, and 2) EnSafe located data gaps at 3 sites [mostly due to chlorinated solvents in GW > MCLs at cluster SWMU 22/25 and AOC 554 and at cluster SWMU 87/172 and AOC 576 and at cluster AOC 559/560/561]. - Greg presented each Zone E site and briefly discussed the rationale for the field work proposed. No PT members objected to any of the work proposed. No PT members proposed additional field work beyond what Greg presented. - AOC 558; the issue of sampling below concrete at this site will be revisited by EnSafe. The issue was left unresolved at the PT table.
9910-M489	Steve	<p>Zone K RFI Additional Field Work Scoping</p> <ul style="list-style-type: none"> - Handout provided (site summary, site figures, proposed sampling). - SWMU 161: OWS, waste oil tank and sump. Paul suggested a few additional borings downgradient of the waste oil tank in the area of the "old" garage. Upon further discussion it was agreed that EnSafe would first review the results of data from the proposed borings to determine the need, if any, for additional borings or wells downgradient in the area Paul expressed concern. - SWMU 162: Old sludge drying beds. EnSafe proposed additional sludge characterization via hand augers. Obtain samples at suspected sludge depth (approx 3 feet bgs), otherwise upper interval sample represents fill material. The PT found this approach acceptable. - Eco Risk: Discussion ensued about obtaining EPA involvement, follow decision management steps and involve DHEC. - SWMU 164: It was agreed that the revised RFI text would include additional information regarding HM handling and processing, and that EnSafe would re-check the building for drains, cracks in floor, etc. and report such in the RFI. Also, EnSafe will re-check the SAA NW of the building. - AOC 698: Move some soil samples closer to building due to DHEC concern about potential wall paint flaking as a source of inorganics. - Clouter Island: Metals and diox detected outside of SWMU boundary (FYI). Two additional temp wells are proposed upgradient of solvent (TCE) and Hg hit followed by two rounds of GW sampling. Exit strategy will consist of installation of the 2 temp wells, sample/analyze about 3 to 4 weeks apart (time constraint will NOT allow for quarterly spread and its not necessary for this site anyway), if [] < MCL then NFA and if [] > or approx MCL then a risk management decision by the PT is required as to the next step. This is a consensus item as listed in the back of these minutes. - SWMU 166: Paul stated that well No. 12 was damaged. Please respond accordingly. Also, please inform neighbors to the south of site of the current GW contamination.

9910-M490	Tony	<p>Arsenic</p> <ul style="list-style-type: none"> - Handout provided; PAH and Heavy Metal Concentrations in Sediments at Coastal South Carolina Marinas by ECT, and Study of State Soil Arsenic Regulations by AEHS of UMASS. - Second handout provided ranges of arsenic and BG, etc., in State soil. For SC the range is 2 to 11 ppm and for the Navy base its 9 to 23 ppm. - The PT discussed page 4 of the second handout (sources of soil arsenic at industrial sites). The team attempted to ID potential sources of arsenic at CNC by reviewing the list on page 4.
9910-M491	Lanny	<p>GIS ArcView Demo</p> <ul style="list-style-type: none"> - Handout provided. - Lanny presented an ArcView demo to the PT. The ArcView program included an overview of the base (non contiguous property was not included though) with GIS located tanks, asbestos and LBP sites, available reports, site photographs, abatement work and other past or current environmental action (with the exception of RFI and CMS activities). The environmental action primarily included former DET activities such as asbestos, LBP and UST related assessment and abatement work - The primary purpose of the demo was to show the availability of GIS entered data and how it could help with the FOST process. - The PT favorably received the ArcView demo. - Lanny offered his support to the PT or to anyone who desired to further explore his ArcView project.
9910-M492	Tony and Charlie B.	<p>New Contractor Questions</p> <ul style="list-style-type: none"> - Handout provided. Three set of questions; 1) LRA related, 2) RFP or Scope related, and 3) Regulatory related. - Charlie Black (SDIV) was available to answer PT questions/concerns. - PT discussed "regulatory related questions - 6 questions." - For Q1, DHEC stated that the answer provided on RAB Q/A document dated April 94 would suffice. In essence the answer is "yes" with conditions. - For Q2, DHEC stated that MCLs are the GW cleanup goal. - For Q3, DHEC stated see answer to Q1. - For Q4, DHEC stated no ... staff level will remain as is. - For Q5, DHEC stated BG values for zone-specific soils is available in the RFI ... for GW, see answer to Q2. - For Q5, PT stated no due to regulatory hurdles ... this issue has been visited prior by the CLEAN contractor. - To the reader of these minutes: The above listed answers are NOT definitive. This was a first pass by the PT. DHEC will respond in writing in a few days. The final answers will be made available to the 3 short-listed firms AFTER the final answers are fully determined.
9910-M493	Tony	<p>CNC Deliverable Schedule</p> <ul style="list-style-type: none"> - Handout provided. Current schedule outlining RFI, CMS, FOST and FOSL documents. - This scheduled was altered by the PT at the table. The revised version will be sent to PT members by Tony Hunt within a week or so.

9910-M494	Joe	<p>Future PT Meetings</p> <ul style="list-style-type: none"> - Nov 99 PT meeting in CAE canceled (due to work load and lack of need for meeting). - Dec 99 PT meeting in CHS is still on, 14 and 15 Dec with new contractor likely and existing PT members. Team leader will be Dann and scribe will be Larry.
9910-M495	Joe	<p>Wrap up and Close Out</p> <p>Positive</p> <ul style="list-style-type: none"> - Reactive with large/important issues. - Vertical profiling discussions by Todd. - Productive meeting. - Good discussion regarding outsourcing. - Todd presentation, RFI figures. - Great job scoping for RFI Zones K and E by Steve and Greg. - No longer pointing fingers with regard to the outsourcing issue. - Scheduling presentation by Tony, nifty high tech graphics. <p>Negative</p> <ul style="list-style-type: none"> - Overtime on many items. - Scoping sessions of important RFI Zones E and K occurred at end of day, not good. - Number of copies for PT distribution (not enough). - Scoping was tedious and not fully clear as to its objective. - Not very creative with solutions for nagging issues that keep coming back at us like the Energizer Bunny.

ACTION ITEMS

9910-A264	Tony/Todd	Review conditional approval letters and ID sites that req additional monitoring in the CMS. By 15 Oct 99.
9910-A265	Project Team	Research issue on GW monitoring ...where to conduct monitoring, how to report, and exit strategy. By 15 Oct 99.
9910-A266	Tony	Check USAF Base Environmental for info regarding fire training pit and WWTP near SWMU 162. By next PT meeting.
9910-A267	Todd	Check and repair well damage, SWMU 166 No. 12. By Dec 99.
9910-A268	Tony	Ensure neighbors to the south of SWMU 166 are informed of GW impacts. Via fact sheet. By 2000.
9910-A269	?	Provide GIS data for future reports (sampling data, site data). By ?
9910-A270	Mihir	Six questions from contractors for regulators. Provide written response within 10 days of receipt of Navy's written response.
9910-A271	Tony	Provide Zone J scoping package. By Dec 99.
9910-A272	Paul	Provide DHEC approval letter to Tony regarding FCUnion. By Nov 99.

CONSENSUS ITEMS

9910-C10	LT GW Monitoring Plan - Objective: 1) to monitor known off base migration, 2) to monitor migration of impacted GW to SW, 3) to monitor wells with known GW problems, 4) for sites with confirmed GW problems, to monitor until CA is in place, and 5) to facilitate decision whether further CA is necessary or NFA.
9910-C11	DET ISM and Relationship to RFI, CMS and SOB - DHEC stated the RFI should sum up the DET ISM and its compliance with RFI RGOs. If the ISM satisfies the RGOs then a NFA statement in the RFI is acceptable ... CMS not required but a SOB stating NFA would be required so as to provide an avenue for public comment.
9910-C12	Clouter Island GW - Two additional temp wells are proposed upgradient of solvent (TCE) and Hg hit followed by two rounds of GW sampling. Exit strategy will consist of installation of the 2 temp wells, sample/analyze about 3 to 4 weeks apart (time constraint will NOT allow for quarterly spread and its not necessary for this site anyway), if [] < MCL then NFA and if [] > or approx MCL then a risk management decision by the PT is required as to the next step.