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MINUTES FROM RESTORATION ADVISORY BOARD MEETING DATED 8 MAY 2001 CNC  
CHARLESTON SC  
5/8/2001  
RESTORATION ADVISORY BOARD

Minutes of the  
NAVAL BASE CHARLESTON  
RESTORATION ADVISORY BOARD MEETING  
Tuesday, May 8, 2001  
Felix C. Davis Community Center

RAB Members Attending

Tony Hunt	Navy Co-Chair
Don Harbert	Community Co-Chair
Keith Collinsworth	SC DHEC
Wannetta Mallette	Community Member
Lou Mintz	Community Member
Dann Spariosu	U.S. Environmental Protection Agency

Guests Attending

Mike Reubish	Community
David LaRoc	N. Charleston Housing Authority
Paul Bergstrand	SC DHEC
Mihir Mehta	SC DHEC
Denise Sanger	SC Department of Natural Resources
Rob Harrell	Southern Division, Naval Facilities Engineering Command
Gary Foster	CH2M-Hill
Suzanne Zoda	EnviroComm
Keith Johns	EnSafe
Jay Cornelius	EnSafe

*Due to a scheduling conflict, the Old North Charleston Meeting Place was not available. The meeting was moved to North Charleston's Felix C. Davis Community Center, in Park Circle.*

Welcome and Administrative Remarks

Tony Hunt began the meeting at 5:35 p.m. and introductions were made. There were no comments on the February 2001 minutes.

Charleston's arena football team, the Swamp Foxes, is using the North Charleston Olde Town Hall as their headquarters until July. If the Felix C. Davis Community Center conference room is available for the next RAB meeting, it will be the meeting location for the next RAB.

RAB members and guests were invited to write down any questions or comments they had on the environmental program, and they will be addressed during the meeting. Mr. Hunt added that the RAB members will be present after the meeting to address any questions.

Subcommittee Reports

Mr. Hunt reported that the community relations subcommittee met earlier in the day. In attendance were Lou Mintz, Tony Hunt, Suzanne Zoda, Keith Collinsworth and Keith Johns. The questionnaire for the Community Relations Plan update was discussed. The subcommittee had received responses from one-third of the RAB members. Responses from the community

and RAB are needed by May 11th in order to get the Community Relations Plan updated.

Mr. Hunt reported that the residents of Building 225, Step-Ahead Program, have found a place to relocate. Some of the Step-Ahead training classes will continue to be held in Building 225 until remediation actually begins.

### Environmental Cleanup Progress Report

#### *Community Relations Plan Revision*

Suzanne Zoda presented questionnaires to RAB members and guests to fill out and return by May 11th. The Community Relations Plan was last revised and issued in November 1995. The update is a requirement under the Installation Restoration program, the Resource Conservation and Recovery Act (RCRA) and the Community Environmental Response Facilitation Act (CERFA). The Community Relations Plan will evaluate the issues and events that have taken place since the last plan was issued, and how the community relations program responded. The plan is where the Navy identifies activities that would be appropriate for the remainder of the process. Finally, the revised plan will include updated phone numbers and addresses of current RAB members.

Ms. Zoda presented copies of the November 1995 Community Relations Plan. She noted that the 1995 version is not going to be totally discarded, because some of the basic information will remain the same; such as Section 1 (the introductory section) and Section 2 (history of the Charleston area, the base and base closure). Section 3 is an overview of the current status of the base cleanup and property transfers, including progress of the RCRA Facility Investigations, interim measures and corrective measure studies.

Ms. Zoda commented that a Community Relations Plan should not be prepared in a vacuum. It is meant to be a plan for action that responds to the interests and issues in the community. A community relations subcommittee can go out and talk to the community but, in this case, there is a Restoration Advisory Board that represents community members. The subcommittee is looking for ways to improve the community relations process based on suggestions they receive.

Section 5 of the November 1995 plan lists objectives that were originally established. Those objectives are still relevant but will be updated or others will be added. The subcommittee will be identifying new objectives for the remainder of the process. Section 6 lists the requirements under the RCRA and CERFA laws. The subcommittee will list the communication activities they're recommending for the remainder of the process.

The schedule to revise this plan is to obtain additional input from the community. A draft of the plan will be submitted to the RAB members in early June for review and comment. The goal is to receive all the comments back before the next RAB meeting. There will be another subcommittee meeting on July 10<sup>th</sup> (the day of the next RAB meeting) that will go over the comments and how to revise it. All RAB members are invited to attend this meeting. A final plan is anticipated by the end of July.

Mr. Hunt stated that the Community Relations Plan is the main document that the RAB uses

when getting information on the cleanup process to the community.

Mr. Hunt then introduced Jay Cornelius, of EnSafe Inc. to discuss the Zone J investigations.

#### *Status of Zone J*

Mr. Cornelius has been the project manager for the Zone J investigation since 1993. He made a presentation on the description of Zone J, the history and scope of the investigation, work completed and plans of work to be done in the future.

Mr. Cornelius began by explaining Zone J. There are three water bodies that surround the Naval Base: Noisette Creek, Cooper River and Shipyard Creek. There are also marshes associated with these three water bodies. In 1997, the work plan and revisions were completed for sampling these bodies of water. Actual offshore sampling began in 1997, with eighty samples taken from the Cooper River, thirty from Shipyard Creek, and fourteen from Noisette Creek.

The work plan proposed that surface water and sediment samples be collected. Mr. Cornelius explained that, because of the volatility of the tides, barge traffic, and other factors, water sampling data may be obsolete within the hour. Surface water samples were taken from known discharges and outfalls around the base, and pH and turbidity measurements were taken. Mr. Cornelius presented a map showing the sample locations.

Mr. Cornelius said that a report was presented in December 1997 on the sample results. These results were compared with EPA screening values and identified hot spots of polycyclic aromatic hydrocarbons (PAHs), pesticides, polychlorinated biphenyls (PCBs) and various metals. These results were entered into a computer mapping program.

TetraTech proposed some locations where reference samples might be collected to compare results from Zone J with an off-site "neutral" reference area. The Navy research lab was brought in to do transport characterization. The Navy, SC Department of Health and Environmental Control (DHEC), Department of Natural Resources (DNR), and the Fish and Wildlife Service joined together to evaluate each of the benchmarks to figure out which is the best benchmark to use.

Mr. Cornelius defined *benchmarks* as contaminant levels identified through toxicological studies. The studies seek to identify at what concentration does a particular contaminant cause a particular response. *Reference concentrations* are not based on toxicological information but are the concentrations found at a comparable site away from the Navy base. They represent what an environment would be like if the Navy base was not there.

Since these water bodies receive water from upland sites on the base, EnSafe decided to wait until all the upland Zone J investigations have been done before linking any findings to contaminants from the base or other sources.

Mr. Cornelius said that EnSafe is now looking at migration pathways, focusing on storm water conveyance features, ditches, drainage systems and sewer systems that drain into the Zone J water bodies.

Mr. Collinsworth asked if anything was found in these migration pathways. Mr. Cornelius responded that CH2M-Jones is trying to figure out the significance of the PAH levels of found, whether it's from the base or not. Each site receives a 13- or 20-page questionnaire, inquiring about the nearest storm drain, were soil samples taken, is there data for those samples, does the data exceed seven screening criteria, and others. EnSafe is trying to first find out what is coming off the base. Trying to determine past releases is nearly impossible in a dynamic system like a river.

The remaining Zone J tasks include enhancing source definition. In other words, determining the link from a site to Zone J, and examining the possible connections between the contaminants of potential concern. To do this, EnSafe will be collecting effluent samples. When it rains, the water washes into the storm drain, along with any chemicals or other contaminants it might pick up along the way. EnSafe personnel go out and collect water from the discharges to see if any of the contaminants found in Zone J are coming from the base. This is to help determine more clearly whether there's a pathway from the base and not anywhere else.

Mr. Mintz inquired how deep the sediment samples were. Mr. Cornelius replied that the 1997 samples went six inches into the sediment. Mr. Mintz inquired why the samples were so shallow, and not several feet deep, to get a profile of the contaminants in mud. Mr. Cornelius replied that the intent of the initial sampling was just to get an idea of the contaminants currently in the path of exposure. He explained that, right now, EnSafe is focusing on existing discharges. EnSafe is assessing what contaminants exist that pose a risk to ecological receptors and what contaminants are migrating from other sites. From an exposure standpoint, they've found very little exposure concerns for fish. If storm water is running off of any Areas of Concern or solid waste management units and entering storm drains, EnSafe wants to stop it now, preventing further contamination.

Mr. Hunt added that the sediment around the base has been dredged many times and any contaminants three feet down would be gone. In many places, the RDA has had to keep the areas dredged to keep the slips open. He said that EnSafe is not looking for unexploded ordnance (explosives) in the water. That's a separate contract. He pointed out that the point of this sampling is to assess what is coming off of the base currently, so that continued contamination can be addressed.

Responding to a question, Mr. Cornelius said that no samples have been taken of the fish in the Noisette Creek estuary. If sediment samples show a source somewhere, they will discuss the potential for risk at EnSafe's next scoping meeting. They might take additional sediment samples then. If the samples exceed their trigger values for specific contaminants, they will start looking at the impact to biological receptors such as fish, and do tissue studies.

Mr. Mintz asked if they had found much chromium in Shipyard Creek near the Macalloy site. Mr. Cornelius said that EPA was doing oversight for Macalloy and were not finding much chromium there from deep samples. He added that they do have a relationship that allows both investigations to share their sampling data.

Mihir Mehta stated that the Zone J process is a process that includes U.S. Fish and Wildlife, the National Oceanographic and Atmospheric Administration (NOAA), EPA's toxicological office and DNR. All four of these agencies have to be involved. They are the natural resource trustees. There will be a meeting in a month or month and a half, and everyone is invited to attend.

Mr. Cornelius said that there are no plans to sample the spoils area that the Navy once owned across the creek. The Corps of Engineers owns that property now. Dredge spoils are regulated under a different law.

In Noisette Creek, nothing extraordinary found except a few slightly elevated metals.

EnSafe's next step is to prepare work plans to start work in the near future. Under the Zone J RFI report, the first two preliminary steps are completed. At the third step is a decision: either stop or go to a full-blown ecological risk assessment.

Mr. Hunt stated that, in the RFI process, they are studying the pathways where contaminants could migrate from the site. They also have to look at the ecological risk assessment process, which requires screening against benchmark levels to determine whether it's necessary to proceed further.

Mr. Cornelius stated that EnSafe is considering risk assessment separately. He explained that you can get so much accomplished between the RFI work plan and the ecological risk assessment. Once they have all the data, they don't have to wait for everything to complete the risk assessment.

He explained that Davis & Floyd has divided the storm water management system into over 100 separate drainage basins. A drainage basin is an area of land that directs water to known outfalls. EnSafe has added those overland flows that were not covered by the storm sewer system, open ditches and the like. Rust Environmental did sampling of these basins in 1994 and 1997, and EnSafe will incorporate that data.

EnSafe will also take reference effluent samples. These are to find out what constituents are in a "normal" effluent sample from a site similar to the Navy base with similar type industry and partial residential areas, such as Patriots Point and tidal creeks at the Wando.

EnSafe uses a battery-operated automatic storm water sampler that is triggered by rainfall or stream flow. The pump is triggered by water sensors inside a rain gauge. The data from those samples will supplement the storm water data.

In Zone E, the Rust investigation noticed that the ends of some pipes were under water even at low tide. They had to follow that pipe inland until they got above the mean high water mark. EnSafe hired a hydrological engineer to do hydrodynamic modeling to find out, once something leaves a pipe or outfall, which direction it will go, how far it will go, how long it might be suspended, where it might settle out, and where the most turbulent areas are.

Mr. Cornelius reported that EnSafe completed the preliminary sampling in 1997. Upland sites

are near complete. Zone J effluent sampling will take place late this year or possibly next year. EnSafe is projecting early 2002 for the draft RFI report for Zone J.

Agenda for Next Meeting

Mr. Hunt inquired if there were any areas of interest that might be discussed at the next RAB meeting. He suggested it might be informative to put together a history and development of the RAB; from the Technical Review Committee to the RAB now, documenting where they've been and some of the things done.

Mr. Spariosu and Mr. Harbert are going to be in Denver for a meeting with RAB and Navy co-chairs. Mr. Hunt requested a report from them on that meeting. Mr. Reubish suggested a snapshot of the progress so far from CH2M-Jones and an update on the leasing of spaces from the Redevelopment Authority.

Mr. Hunt reminded the board that the location for next meeting will be selected when they determine the availability of the Davis Center conference room.

Meeting Adjourned.

*Note: The location of the next meeting has been confirmed. The meeting will be held at the Felix Davis Community Center, in Park Circle, North Charleston. Park Circle is the large traffic circle on Montague Avenue. The Community Center is the large building in the middle of Park Circle.*

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Tony Hunt  
Navy Co-Chair

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Don Harbert  
Community Co-Chair