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MINUTES FROM RESTORATION ADVISORY BOARD MEETING DATED 12 NOVEMBER
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RESTORATION ADVISORY BOARD

CHARLESTON NAVAL COMPLEX
RESTORATION ADVISORY BOARD MEETING

November 12, 2003, 5:30 p.m.

The Olde North Charleston Meeting Place
1077 East Montague Avenue
North Charleston, SC

Web site for meeting minutes, fact sheets and other
Restoration Advisory Board documents and information:
<http://www.efdsouth.navfac.navy.mil/environmental/rab/chas>

RAB MEMBERS

Tony Hunt	Navy Co-Chair
Wannetta Mallette	Community member
Dann Spariosu	U.S. EPA
Jerry Stamps	S.C. DHEC
Donald Harbert	Community Co-Chair

VISITORS

Dean Williamson	CH2M-Jones
Gary Foster	CH2M-Jones
Keith Johns	EnSafe
Rob Harrell	Navy SouthDiv

Introduction and Administrative Remarks

Tony Hunt began the meeting and asked the RAB members and visitors to introduce themselves. Mr. Hunt commented, in reading through the September 9, 2003 RAB minutes, that the status of the Chicora Tank Farm is that the Navy has found additional petroleum contaminants. The Navy went back to the site and completed some additional investigation, characterization and soil removal. The completion report for that additional work has been sent to the South Carolina Department of Health and Environmental Control (SC DHEC) and monitoring is continuing.

The Finding of Suitability to Transfer document (FOST) for the Chicora Tank Farm will be revised to reflect what was done. The General Services Administration (GSA) is interested in this property and will likely take ownership sometime in April 2004. The Charleston School District never decided whether they wanted this property and has not made a formal request to the Navy. The Redevelopment Authority (RDA) and the City of North Charleston have decided they don't want this property either. The GSA will put the property out for public sale. Since the GSA has asked the City of North Charleston about zoning on this property, the City will put it out for public comment.

Mr. Hunt advised that he would like to report on the investigation and characterization of SMWU 9 at the January RAB meeting. Mr. Hunt is missing a few pieces of information for this report but

will have the report ready for the next meeting.

Subcommittee Reports

There were no subcommittee meetings held this month.

Environmental Cleanup Progress Report

Early Transfer

Mr. Hunt told the board that the Finding of Suitability for Early Transfer (FOSET) document was submitted to the Governor. At the same time the RDA, State Ports Authority and South Carolina DHEC had questions revolving around the State Ports Authority's interest. The RDA wanted to have more discussion with the Navy and the State Ports Authority.

The State Ports Authority (SPA) has discussed how they want to develop that area and that they intend to surcharge the entire area, in stages, prior to any redevelopment. Mr. Hunt described "surcharging" as putting eight feet of dirt across the entire footprint of the site and then putting wicks into the ground. As the surcharge compresses the soil, the wicks will draw out the displaced water. That helps to control the settling or subsidence under any new development.

The RDA, Navy and SPA have also had discussions regarding the "footprint" of the landfill. The Ports Authority indicated that the landfill area would be redeveloped during the second and third phases of development. The area in the second phase of redevelopment extends from Bainbridge towards the Cooper River and is of primary interest. The third phase includes the remainder of the landfill area and is proposed to have limited structures and primarily be used for a transportation corridor off of Spruill Avenue. This is conceptual at this time, but is what the SPA is thinking about.

The Navy has gone back with this information and looked at how surcharging is going to affect the Navy's proposed remedy of the landfill. The Navy is discouraging any development of the landfill footprint itself.

The Navy will let the SPA know about the impact of their proposed construction techniques and, hopefully, the RDA will make a decision on whether to proceed. If the regulatory agencies agree the remedy is acceptable for that site, then the early transfer can proceed. There's no time line as to how long this process will take. The Navy does not want to carve this site out of the transferring property if the RDA doesn't want it, thereby maintaining ownership of undesirable property. With all the property that's left and the land use controls associated with it, the Navy would prefer not to have to do another EBS and another FOST to transfer this remaining property. The Navy is asking the RDA to take all of this land as early transfer or forget the early transfer and proceed in the normal path for a transfer. Other agencies are welcome to encourage the RDA into accepting this property.

Also accompanying the FOSET is the Phase IV FOST which addresses issues having to do with lead-based paint, asbestos, USTs, and polychlorinated biphenyls (PCBs) in that same footprint. The

Navy started a 15-day public comment period on Sunday, November 9, 2003. The FOST documents are available at the project team house on the base.

Ms. Mallette apprised Mr. Hunt that Property Transfer Phase 3 has problems with the deeds and plats. The assessor said the deeds and plats the RDA presented to them were not in recordable form. Possibly the format has to be changed to an 8 by 11 format. Until they're in acceptable form, the assessor's office cannot record it. Mr. Hunt said he would look into it.

Resource Conservation and Recovery Act (RCRA) Permit Revision

Rob Harrell stated it's been over a year since the Navy has modified the RCRA permit. This will be the first revision and will include land use controls as part of the site status. The Navy will prepare a proposed modification and forward it to DHEC. As a part of that proposal there will be Statements of Basis for each site, which give a short history of the individual site and proposed solutions. After DHEC reviews this modification, it will go out for a 30-day public comment period.

In the revision, there are several sites that are changing to "no further action" sites. The status of other sites is changing to land use control sites and corrective measure implementation (CMS) sites. Included within these CMS sites are several where the proposed remedy is monitored natural attenuation.

There should not be any surprises in the proposed RCRA modification documents. These sites have been talked about for the past year. DHEC should receive this modification within a few weeks. Public comment period on this RCRA modification should begin by the end of December.

Corrective Measures Implementation

Mr. Spariosu presented an overview of the RCRA process. From the original RCRA assessment, next comes the investigation. This is the stage where experts do the sampling, finding out where and how much the contamination is and how much of a health risk the contamination represents. Once it's established there's enough contamination to present a risk, the project team moves into a Corrective Measures Study. The Corrective Measures Study is a review and document that lays out whether there needs to be some remedy taken and what they propose the remedy to be. DHEC and EPA look at this study and decide whether they agree or not. This study is available for the public to comment on. The public notice period is after the Statement of Basis, which is a statement of proposed remedies for each site.

In the Corrective Measures Study, the Navy has to propose two or more possible remedies and compare them. The Statement of Basis is the opportunity for the public to comment on whether they agree with the remedies or ask any questions about it. During this 30-day public comment period, the public can look at the Statement of Basis, the Record of Decision and Corrective Measures Study to see how they compare with other possible remedies or community concerns.

Mr. Spariosu pointed out that a previously issued Fact Sheet, number 10, has the nine criteria that the EPA uses to base their decision on. On some sites, he noted, engineers had suggested remedies, yet when they proposed it to the community, the community complained there would be trucks

going from dawn to dusk with their beepers going off when they back up. That's a valid consideration. There are other sites where the process of moving trucks in to haul off waste created dust clouds; another valid consideration. At this stage, and in this comment period, no comment or question is too trivial to ask.

Mr. Gary Foster (CH2M-Jones) updated the RAB about his company's progress on their RCRA corrective work. In the upcoming Permit Modification, there are:

- 80 no further action sites.
- 19 land use control sites.
- 6 additional sites being evaluated.
- 22 long-term monitoring sites, 5 of which have received regulatory concurrence for natural attenuation.
- 8 sites have various expected remedies.

Of the 22 sites that have long-term ground water monitoring, 11 are in the industrial area and have land use controls. There are five sites -- SWMU 87, AOC 561, AOC 613, AOC 617, SWMU 8 -- which still have contaminants but are approved by the regulator for long-term monitoring. (SWMU = solid waste management unit, AOC = area of concern)

Mr. Dean Williamson (CH2M-Jones) stated that during the Corrective Measures Study, CH2M-Jones has to ask themselves on each of the contaminated sites: Is the contamination in the surface soil, in the ground water, or in the sub-surface soil? Is a cap already there? Is it paved or does it have a building on top? He then discussed many of the sites that CH2M-Jones is currently working to remedy. He noted that every year CH2M-Jones has to report their findings to DHEC. At the end of five years, CH2M-Jones has to make an assessment of how well the remedy is working. If there's no progress, DHEC has the right to have other remedies implemented..

- At SWMU 87, contaminants are in the groundwater only. Only one well has detectable concentrations slightly above the drinking water level. The contaminant concentration has been dropping over time. The contamination is going away simply because of natural processes.
- AOC 561 is the site by the power plant building. In-situ chemical oxidation -- injecting hydrogen-peroxide to destroy the contamination -- has worked very well. There's a slight amount of dichlorobenzenes above the drinking water level, and natural attenuation is degrading the rest of it. If needed, biosparging will be used, which is a technique of pumping air into the ground, and the dichlorobenzenes degrade in the presence of oxygen. Long-term monitoring on this site will last for maybe five years.
- AOC 613, close to the Hunley Building, has only a few wells slightly impacted, and the contaminant concentration is decreasing over time.
- AOC 617 was a former galvanizing plant, and there's some zinc in the ground water. Zinc is not a particularly toxic mineral, it's actually essential. The plume at this site is not migrating at all. Natural attenuation seems to be the best remedy there.
- SWMU 8/636 is located adjacent to the landfill where waste oil had been placed. Very little

contamination remains there.

- SWMU 5/18 is down by dry dock 4. This area is where the Navy cracked old batteries from submarines. A lot of lead was in the soil and excavation operations have been completed, thereby removing the contaminant. The concentration of lead in the groundwater is right at 15, which is the drinking water standard.
- SWMU 21/54 is in the northern part of Zone E that was used as an area to sandblast parts. Some of that sandblasting material had metals in it, causing leaching to the ground water. This source of contamination has been removed, and once you remove the source, the natural attenuation process tends to take care of the remaining product.
- SWMU 65 is near Building 74. One well was slightly impacted with lead and antimony. CH2M-Jones is working on the CMS right now. It's a good candidate for natural attenuation.
- AOC 569 is across from Building 177. The wells were impacted with volatile organic compounds trichloroethene (TCE) and tetrachloroethene (PCE). Data show that it appears to be clearing up on its own.
- AOC 723 is a new site. It was an old paint booth/degreasing station. CH2M-Jones is still working on the Corrective Measures Study for this area.
- SWMU 3 was by the old tanks. This was a pesticide handling and mixing area. A lot of soil has been removed. CH2M-Jones has put in a few monitoring wells. Once the soil was removed, they found low levels of pesticides in the groundwater, but nothing migrating outside the footprint.
- SWMU 6 was called the Old Corral, an old pesticide area. The Detachment removed a lot of soil, and only a few wells have slight elevated pesticide levels.
- AOC 633 is the transformer area that leaked transformer oil and PCBs into the groundwater. They have excavated much of the contaminated soil thereby solving most of the problem. This is a very small impacted area, and monitoring of the groundwater is recommended..
- AOC 722 is near the maintenance shed and does not have very high concentrations. CH2M-Jones is putting in some new wells. This site is probably a good candidate for natural attenuation.
- In SWMU 39, the shallow groundwater is clean except for a very small area of the deeper aquifer. A bio-transformation process is happening. The contamination is bio-degrading. CH2M-Jones is going to treat that area with a powder form of iron that dechlorinates the solvent. There are also contingent remedies.
- Also at SWMU 39 is a plume of fuel coming on-site from the Hess terminal in shallow groundwater. Fuel is lighter than water so those contaminants float on top. Hess will be doing more aggressive treatment of their dense, sinking contaminants.

- SWMU 25/70 was a former plating shop. The proposed approach here is to inject powdered iron to convert the hexavalent chromium to trivalent chromium. This treatment leaves the chromium in the ground, but it is a detoxification process.
- AOC 607 is the former dry cleaners. The electrical heating removed quite a bit of PCE solvents. CH2M-Jones is completing their investigation in the deep aquifer, which does not appear to be impacted. When the electrical heating was turned off, there was a high conversion of the product to dichloroethylene. CH2M-Jones is going to add organic materials such as lactate to see if they can accelerate the cleanup process in the dissolved plume.
- SWMU 9 is the landfill and will be left in place with a protective cap and monitoring the perimeter.
- AOC 706 is adjacent to SWMU 9 and has been encompassed within the SWMU 9 CMS.
- SWMU 17 is being used by the Coast Guard. There was a small area in the back that had a release of number 5 fuel where they were testing submarine engines. Also there were some transformers leaking oil in this area. The remedy has not been selected yet. CH2M-Jones might look at bioparging as a remedy. The ground water is only moving a couple feet a year.
- SWMU 196 is across from Shipyard Creek. CH2M-Jones will use bioparging by injecting air and oxygen into the ground water. The native bacteria will help degrade the contaminants. This Corrective Measures Study has been submitted to DHEC for review.
- SWMU 166 is at the annex. Powdered iron was used to dechlorinate the site. CH2M-Jones is tracking the effectiveness and also looking at other remedy alternatives.

Closing Comments

Mr. Hunt advised that the Navy was looking into whether the RAB could meet on a quarterly basis. He said he would call around to the other members and get their input.

Meeting adjourned.