

**Naval Amphibious Base Little Creek
Virginia Beach, Virginia
Restoration Advisory Board Meeting Minutes
September 3, 1998**

Attendees:

Newton Berliner	Baylake Pines Civic League
CAPT Robert Bristol	USN Ret, Community Member
Robert Dean	Clean the Bay Day
Robert Deegan	Sierra Club
Maurice Jackson	Virginia Beach Clean Community Commission
Walter Vargo	Community Co-Chair
Jeff Waller	City of Virginia Beach, PW/Engineering
Lisa Lillis	VDEQ, RCRA Division, Tidewater Office
Robert Weld	VDEQ Remedial Program Manager
Bruce Beach	U.S. EPA Remedial Program Manager
Bob Schirmer	LANTDIV Remedial Program Manager
Maureen Connors	NAB Little Creek Environmental Quality Division
Kelly Greaser	NAB Little Creek IR Program Manager
Barbara Jennings	NAB Little Creek Public Affairs Office
Paula D. Keicer	COMNAVBASE Environmental Public Affairs

Attachments: 1. Overheads and handouts from presentations

The Restoration Advisory Board (RAB) Meeting was held at 1 p.m. on September 3, 1998, at the Bachelor Officer's Quarters in the second floor conference room at Naval Amphibious Base (NAB) Little Creek.

Ms. Greaser provided an overview of the proposed RAB agenda and the planned site visit.

Mr. Deegan expressed interest in the site visit, and complemented Ms. Greaser on the Environmental Restoration Terms and Acronyms document that was published specifically to help Little Creek RAB members become familiar with terms commonly used in the Installation Restoration Program.

Presentations were made by Ms. Greaser on the sites listed below:

Site 7 (Amphibious Base Landfill)

A general overview of the Site 7 information is presented below:

- History
- Remedial Action - First Phase (OHM)

- Remedial Action - Second Phase (Hudgins Contracting)
- Long-Term Monitoring

Additional information presented:

- Site 7 will never be developed due to the explosive arc for the adjacent magazine
- Soil cover and debris removal projects have been completed
- The earthen berm is to be left in place
- Contractor is to monitor the grass growth
- Mowing plan will be proposed to the regulators (burning or cutting every 2 years)

Questions and Answers:

1. Q: Costs for the Project? A: Total project cost is approximately \$1 million. Annual sampling (2 rounds) cost approximately \$100,000.
2. Q: What are the problems with trees growing on the landfill? A: Tree roots may potentially grow into the trash layer. The roots may absorb contaminants, transferring this contamination into the air, or to animals that may eat the leaves of the trees.
3. Q: At Sites 9 & 10, monitoring results will soon be available. Will we get the same information at this site? A: Yes. All monitoring results are submitted to the regulators and put into the various information repositories. Monitoring results are formally reviewed at the end of 3 years, but we typically do an informal review of the monitoring results each time results are submitted.

Site 13 (Pentachlorophenol Dip Tank & Wash Rack)

A general overview of the Site 13 information is presented below:

- History
- Engineering Evaluation/Cost Assessment (EE/CA) Removal Action Objectives
- Leaching Guidance
- Previous Soil Sampling
- EE/CA Alternatives Evaluated
- Bioremediation Option using Oxygen Release Compound (ORC)

Additional information presented:

- Dip Tank solution used was 1 part Pentachlorophenol (PCP) to 10 parts diesel/kerosene mix. This solution was later changed to an aqueous solution.
- To remove the source of PCP contamination at this site, the Navy desires to perform a soil Removal Action (RA), when funds become available. Once funds become available, the Government contracting process must be utilized, providing a soil RA starting approximately March 1999.
- Two soil samples that were slightly over the Risk Based Concentration for arsenic are due to natural background. This is supported by the fact that the locations of these exceedances are not near the immediate area the PCP dip tank.

- The method of determining the removal action level for the soil (16 mg/kg) was based on using the EPA soil leaching guidance and "back calculating" the soil action level. Because of the physical construction of the site, this procedure yields a very conservative soil action level.
- By completing the removal action, the source for groundwater contamination will also be removed.
- Once the PCP soil is removed, adding ORC directly into the groundwater at the bottom of the open excavation provides an excellent way of placing an oxygen source directly into the contaminated groundwater source.
- The EE/CA recommends the use of Alternative #3 (Excavation of the Soil Above Leaching-Based Criteria). The Navy is currently investigating the use of ORC with Alternative #3, and will probably use the ORC if sufficient funding can be obtained.
- Mr. Deegan concurred with the selection of Alternative #3.
- VDEQ is currently reviewing the EE/CA documents, and while it appears that they do not have any comments on the proposed Removal Action, they will provide formal comments shortly.

Questions and Answers:

1. Q: Where is the PCP contaminated soil going to be disposed of? A: Material will probably be disposed of in Michigan, since Virginia does not have any approved landfill to receive this kind of hazardous waste.
2. Q: When current "pressure treated" outside decks are disposed of in the future, will this material also have the same disposal problems that we are going to encounter at this site? A: No, the use of PCP as a wood preservative stopped approximately 20-30 years ago. Modern day pressure treated wood uses a safer chemical.
3. Q: Is the removal action limit too high or too low? A: Based on the assumptions used to calculate the leaching criteria, we are using a very conservative approach to determine the removal action limit. It is very protective.
4. Q: How does the application of ORC compare with plowing or landfarming? A: To apply the ORC, we will probably be digging a small excavation down to 20 feet. Plowing or landfarming usually only affects the top 3' or less of soil.

SWMU (Solid Waste Management Units)

A general overview of the SWMU information is presented below:

- SWMU Definition
- SWMU History
- SWMU 3 & IR Site 8 (History, Previous Sampling, Proposed Sampling)
- SWMU 3 & IR Site 8 Site Investigation Report

Additional information presented:

- Out of 147 SWMU & 8 Areas of Concern originally identified by EPA, the Navy feels that approximately 40 SWMUs require additional investigation. However, EPA and VDEQ still must review and agree to this list.
- Using temporary wells and testing for unfiltered metals in groundwater typically elevates the level of any metals detected.
- The pump and treat system at the piers has performed well. This system also has an extra layer of protection (a plastic vertical barrier in the subsurface) to keep fuel sheens from getting into the harbor. The system is monitored twice a week, sampled twice a month, and all of the work is covered under various permits. Currently, no violations of the permitted discharge limits have occurred. There is a noticeable decrease in the amount of oil being pumped and it appears that one-half of the site has been cleaned up in 2 years.
- Mr. Deegan stated that NAB Little Creek should be proud of the results of the pump and treat system at the piers.
- The workplan for SWMU #3 (Pier 10 Sandblast Yard) has been slightly changed from the Draft Final Plan that was sent out for comments. Two additional soil samples were added in grassed areas. One of the proposed wells was moved due to underground and overhead utilities. An existing UST well (adjacent to this site) will be used as a background well.
- Because the field work for this investigation will begin soon at SWMU 3 and IR Site 8, the Navy needs comments from VDEQ and USEPA as soon as possible.
- At IR Site 8, the soil samples scheduled to be taken at 3 to 5 feet may have to be taken right above the water table, which could be 2 feet or less below grade.

Questions and Answers:

1. Q: Because we are nominated for the NPL, will we have to review all the IR sites, and SWMUs? A: Yes, we will need to review all of the sites and come into an agreement with VDEQ & EPA. This question will be discussed further in the next segment (NPL).
2. Q: Was the cleanup effort at the piers a SWMU? A: The piers area was originally identified as an IR Site. However, through the UST Program, the Navy installed a \$2 million pump and treat system. So far the system has recovered 15,000 gallons of Diesel Fuel Marine (DFM). In the next quarterly report the Navy will request closure of the southern pumping system. Reports are submitted to VDEQ, the issuer of the permit the project is managed under.
3. Q: Since the pump and treat system at the piers is an IR site, will a report be available for the RAB to review? A: Generally, reports are submitted to VDEQ and are not in the format that IR Reports are. However, during the next RAB meeting, an update can be presented. The Piers Treatment Plant may also be visited after the meeting or at a later date.
4. Q: If no sandblasting is currently being done at SWMU 3, where is sandblasting being done? A: All blasting occurs inside building CB-125 with "state of the art" equipment. Blasting activities comply with applicable portions of the Clean Air Act and the Resource Conservation and Recovery Act.
5. Q: Are surface soil samples being taken inside SWMU #3, since it is currently paved? A: Yes. Samples of the surface soil are collected below the layer of asphalt

6. Q: Since barium is found at these types of facilities, do you remember finding barium at SWMU #3? A: Barium was detected, but not at any level of concern.
7. Q: What is the worst case scenario at SWMU #3? A: Since we are still investigating this site, we do not know what type of cleanup would be required.
8. Q: How big a mound is the landfill at IR Site 8? A: There is no mound at all, the resulting elevation is flat.
9. Q: How high is the mound at Site 7? A: Approximately 6-9 feet.
10. Q: Did disposal at IR Site 8 occur in the wetlands? A: From looking at old photos, it appears that disposal did not occur in the wetlands.

NPL (National Priorities List)

A summary of the NPL information is presented below:

- History
- Submission of comments on the HRS scoring package
- Federal Facilities Agreement (FFA)

Additional information presented:

- Mr. Deegan has been impressed with the technical expertise available at EPA, and he welcomes their expertise at Little Creek.
- The Navy, VDEQ, & USEPA will all start "partnering" the first part of 1999. Partnering allows all the parties involved to sit down on a regular basis (once every 4- 6 weeks) and discuss each project and its associated problems and solutions.

Questions and Answers:

1. Comment: NAB Little Creek is the first site in Virginia Beach on the NPL. Necessary funds should be obtained to get the facility off the NPL as soon as possible. A: Since the Navy uses a risk based system to allocate monies to various installations, we will not be getting additional monies just because we have been placed on the NPL.
2. Q: Is there a disadvantage of being on the NPL? A: Yes. There is a stigma attached to being on the NPL. Also, administrative costs are increased.
3. Q: Once on the NPL, can VDEQ now use their Water Quality Vehicle at NAB Little Creek? A: VDEQ will have to look into that.
4. Comment: The facility is not currently posing a health risk, but a century from now we could become a big metropolitan area. Potential development should be considered. A: Actions at some of our sites are based on residential risk scenarios. Future land use scenarios are always considered.
5. Q: In the Bayside Pines subdivision, there are still some people who use groundwater because they do not want to pay for water. Does this facility affect their drinking water? A: Individuals generally withdraw drinking water from a different water aquifer than the ones contaminated at NAB Little Creek. Also, all residents and industries off base are upgradient (upstream) of the base and would not be affected.

6. Q: Will another press article be done when NAB Little Creek is formally placed on the NPL? If so, the Base should use examples of all the good work that is being done at this base. A: Typically there is not much press coverage when a military base is formally placed on the NPL. Most of the press coverage comes when the facility is proposed for the NPL.

Site 11, 12 & 13 Update

A summary of the Site 11, 12 & 13 update information is presented below:

- Site 11: A small plume has been detected under the building. We are currently installing wells to bound the plume.
- Site 12: Wells have been installed. It appears that the plume has shrunk, which is good for the Navy, but bad news for the study currently under way by VA Tech. Sampling results show no contamination either in the canal or the lower Yorktown aquifer. The thickness of clay under site 12 is approximately 20-30 feet, which helps keep the contamination from getting into the Yorktown aquifer.
- Site 13: The outside boundary of the PCP groundwater plume has been defined and it appears that the plume has shrunk. Based on field data, it appears that the PCE plume has all but disappeared. While the site is bounded by wells, all of the well samples, along with the large number of geoprobe samples taken, showed little evidence of a PCE plume. It is possible that this plume has been "cleaned up" by the bacteria in the groundwater. Additional wells will be installed to confirm this field data obtained by the geoprobe.

Upcoming IRP Activities

A summary of the upcoming IRP activities is presented below:

- Most of the future activities indicated are tentative, and are contingent on when the Navy's FY 99 environmental budget is finalized.
- The next RAB meeting is proposed for March/April 1999 time frame.
- Due to the length of the RAB meeting, it was decided to postpone the site visit.
- The RAB meeting adjourned at 3:30 p.m.

Questions and Answers:

1. Comment: Because we are going onto the NPL, maybe the RAB meetings should be more frequent than every six months. A: Our meetings are based on current environmental work projections at Little Creek. We have also made a decision to keep the RAB meetings short. However, we will monitor the amount of work slated to be discussed at each RAB meeting, and will vary the frequency of the RAB meetings accordingly.
2. Comment: Mr. Berliner was interested in seeing the well drilling at Site 13 currently underway. He was provided a quick visit to the site after the RAB meeting was adjourned.