

RAB Minutes

NAS North Island

Restoration Advisory Board

Introduction

The thirty-seventh Restoration Advisory Board (RAB) meeting for Naval Air Station (NAS) North Island was held on Wednesday, July 30, 1997, at the Coronado Public Library from 6:30 p.m. to 8:30 p.m.

Mr. Arno Bernardo, Navy Co-Chair, called the meeting to order at 6:40 p.m. and welcomed RAB and community members. The agenda was modified to add a brief presentation by Mr. Magee on the Navy annual RAB report.

RAB attendance: A. Bernardo, W. Crawford, R. Dittbenner, L. Ewen, A. Gimeno, L. Hunter, S. Kaupp, R. Mach, D. Marron, A. Van Rooy

Public attendance: J. Bailey, H. Bludau, N. Clements, B. Collins, D. DeMars, M. Field, B. Gill, R. Hubbell, S. Kaupp, M. Magee, D. McCullar, R. Mello, K. Moser, D. Nelson, A. Parsons, V. Mayer

APPROVAL OF MEETING MINUTES FROM JUNE 27, 1997, RAB MEETING

Ms. Ewen requested that we identify the City of Coronado representative by title as well as by name in the minutes. The minutes were approved as modified. Ms. Hunter suggested that future minutes reflect which RAB members attended, as well as the public and the RAB members agreed. This will be done for all future minutes.

NoVOCs INNOVATIVE TECHNOLOGY DEMONSTRATION, SITE 9 - Dave DeMars, SWDIV RPM

Background: The pilot study started as an EPA Superfund Innovative Technology Evaluation (SITE) program demonstration in conjunction with the EPA Technology Innovation Office (TIO) and the CleanSites private/public partnership. The Navy is cost sharing this project with the other team members under the NELP program. The NoVOCs system is patented by EG&G Environmental, a Denver company. The system uses a groundwater well to strip VOCs out of groundwater through an air sparging process. The study is conducted in conjunction with the ongoing Non-Time Critical Removal Action now taking place on Site 9, located at the southwestern portion of the island. This is the soil vapor extraction unit in operation for approximately 1 year. The NoVOCs testing area is in Area 1. The existing SVE system is located along 3rd street, the well will be located past the intersection of 3rd and 4th streets.

The plan is to drill the NoVOCs well down 70-90 feet. There are two screened intervals located at the water table level and toward the bottom of the well. There is an air injection blower and a vacuum extraction blower, with a pipe going down the middle of the well. An air pump at ground surface injects air down the pipe to a defuser at the bottom of the well. The air bubbles strip the VOCs out of the water as they rise to the surface and the vacuum pump pulls out air bubbles. The same water goes through several treatment processes, through a circular motion. All of this takes place below ground, at no time does the water being treated leave the well. The beauty of the system is that there are no moving parts, no mechanical parts or machinery below ground. The removal efficiencies range from 84% to 97%, depending on the contaminant. The air is drawn off out of the well to a treatment system above ground. The NoVOCs well will be surrounded by a series of monitoring wells. These will measure not only the groundwater chemistry, but the radius of influence as well. Ms. Hunter inquired whether there are VOCs below 70 feet. There is a B clay

layer below 70 feet where some VOCs are located.

The Navy is also trying a new technology to treat the extracted VOC air. They have contracted with a company called Thermatrix to treat VOCs in a manner other than carbon beds, conventionally used at many similar sites. The company has claimed >99.99% destruction efficiency. The system is called a flameless thermal oxidizer. It is packed with ceramic material. The only time a flame is used is to preheat the ceramic network to 1800 Fahrenheit, usually with propane fuel. The ceramic matrix retains heat. It is a simple system in that there are no moving parts. Once the target temperature has been reached, the VOC contaminated air or "fume" is fed into the system. There is a continuous flow of air through the chamber until it is completely combusted and the contaminants have been destroyed and then it is allowed to leave the system. As the gas combusts, its heat is released to the ceramic matrix and this helps to destroy new gas entering the system. Ms. Field inquired how the heat affects the VOCs. Mr. DeMars explained that the heat destroys, or thermally oxidizes, the VOCs. Everything but carbon dioxide, water vapor and some hydrochloric acid (HCL) gas is virtually destroyed. A wet scrubber is used to take out the HCL gas.

Ms. Hunter and Mr. Kaupp asked about waste products. Mr. Magee explained that since the combustion is complete, there are no dioxins or furans coming out from the system. Mr. Moser asked how the system would react to a severe spike. Mr. Magee replied that the system has been over designed to such an extent that an unpredictable spike will probably be handled easily. Since the level of VOCs will decrease over time, propane is used as a supplement to maintain the constant high temperature. This is controlled by computer. There will be a system to automatically shut off the NoVOCs system if the Thermatrix system fails. Mr. Dittbenner asked if it would be tested prior to installation. Mr. DeMars assured him that it would be, and Mr. Collins added that it would be source-tested to see what kind of emissions there were.

If the NoVOCs system fails, there is no reason to turn off Thermatrix system. It takes a day or two to get the system up and running, so it is best to keep it going at all times. Mr. Moser asked what would happen if someone forgets to fill the propane tank. Mr. DeMars explained that the system would notify the monitor and that it would be monitored on site at all times, as well as notifying the company. Mr. DeMars explained that the Navy has contracted with Radian Corp. to do periodic sampling of Thermatrix, that they are not relying on Thermatrix alone. They will put together a sampling analysis plan, give the information to the Air Pollution Control District and then do periodic sampling of the Thermatrix unit. Ms. Kaupp asked about frequency of sampling and was told that there would probably be weekly samples at start-up, and then monthly. The reports will become public and go to all of the regulatory agencies, as well as the repositories.

The Navy believes both systems have other applications at NAS North Island and at other sites, as part of the long-term remediation. An addendum to the Action Memorandum/Remedial Action Plan has been submitted to DTSC (Department of Toxic Substance Control) for review and approval. Installation of NoVOCs is expected in late August or early September of this year; the Thermatrix unit will not be shipped here until October. Start-up will probably be in November and the demonstration is expected to last 6-12 months. The design engineers will be available to talk to the RAB during the demonstration period.

Ms. Hunter asked as to the cost of the Thermatrix unit. Mr. Collins informed the RAB that the unit itself was \$330,000. The system has been tested at other Superfund sites and a smaller unit was tested at NAS North Island in December of 1995 for approximately 1 week, during which time they were concentrating on JP-5 vapors and not chlorinated VOCs. Ms. Hunter asked whether stack tests for dioxins were done at that time and said she would like to know the results. Mr. Collins said they will test for dioxins. Ms. Hunter expressed concern about the Navy purchasing a "mobile combuster" - she is aware that the EPA favors that technology, but the Environmental Health Coalition does not. Mr. Collins explained that the flames never touch the contaminants.

An array of wells could form a barrier, and the Navy is considering using hydraulic controls to stop the flow of contaminated groundwater into the bay. In answer to Ms. Hunter's question as to whether

something else could be attached to the NoVOCs, Mr. Collins said that there are alternatives, but the efficiency of carbon is far less than this machine. Mr. Collins assured the RAB that testing during start-up would occur much more frequently than monthly. Ms. Hunter questioned the sphere of influence and was told that this information would be gained through monitoring well results and dye study testing. Ms. Kaupp asked about daily testing and how much Dioxin samples cost. Mr. Mach replied that the tests cost \$1200-1600 per sample. Ms. Hunter requested a report on whether dioxin and furan sampling was done at other sites where the ThermoMatrix was used and what the results were. Ms. Hunter reiterated her concern about using destruction technologies and combustion. Mr. Dittbenner would like to know if there have been any problems with the technology or any human problems with running the system.

Mr. Magee talked about Site 9 air emissions. He put together a histogram of the emissions from Sites 9 and 11, which was sent out with the quarterly mitigation monitoring plan. The original projections for Sites 9 and 11 were 6.8 tons (13,676 pounds) of VOC emissions for each, based on the pilot study. Cumulative air emissions are 356 pounds for the first year at Site 11. Thus far this year there have been 205 pounds of air emissions for Site 9.

RAB TECHNICAL ASSISTANCE COMMITTEE [TAC] - Laura Hunter

The committee met 4 times. 87 mailings were sent out and 16 bid packages were received. The committee picked two top choices for each task. References were checked for the first choice only.

RABTAC is requesting that RAB authorize negotiations with recommended consultants, splitting tasks evenly at \$6,000 each. They will try to negotiate a lower rate, but they believe that is a fair price. Hourly rates of the consultants ranged up to \$210. Mr. Collins asked if it was possible to have a third choice for each task in order to meet Navy requirements. Ms. Hunter agreed. Mr. Collins also requested copies of the documents to be reviewed, Ms. Hunter said she would look to the Navy for that. Mr. Mach agreed to update his list of documents under review.

Mr. Dittbenner moved to approve RABTAC recommendations pending compliance with requests and concerns expressed by Mr. Collins and RAB recommendations. He later amended the motion to incorporate a meeting between Navy staff and the RABTAC to iron out the details.

Mr. Kaupp explained that Ms. Hunter did 85% of the work of the committee. The range of the bids was from \$4000 to \$7200 per task. Ms. Hunter said that Issue 4 would be split into A and B.

Mr. Mach seconded Mr. Dittbenner's motion. The motion carried.

CONSOLIDATION WITH NAVAL AMPHIBIOUS BASE [NAB] - Arno Bernardo

Mr. Bernardo introduced Richard Hubbell - RPM for NAB, with DTSC. The management of installation restoration [IR] sites has been retained by NAB at this time. NAS North Island absorbed cleanup of the underground storage tanks. Ms. Ewen asked whether the RAB could have a site visit. Mr. Bernardo said that could happen in October. Mr. Kaupp inquired about sediment removal from the pier at the end of NAB. He was asking when the comment period ends. Mr. Magee said he would get an answer. Mr. Hubbell said they will be processed through the Naval Station CDF facility.

NORTH ISLAND CORRECTIVE ACTION ORDER - Mike Magee

DTSC elected not to present. Since the Corrective Action order is undergoing legal proceedings between DTSC and the Navy, the Navy declined to do any presentation at this time. Ms. Gimeno said that the Navy appealed and that the hearing is set for September 15th in San Diego.

RAB REPORT - Mike Magee

There is a survey questionnaire which goes to CINCPAC fleet in Hawaii and then to the CNO in Washington, DC. It is due on August 15th. Mr. Magee presented his answers and asked the RAB to verify his answers to the questionnaire.

Mr. Magee said that the Navy is considering cutting out transcript services for the RAB. Mr. Mach said the cost is approximately \$6000 per year. Mr. Dittbenner said that he feels the transcript is important. Mr. Collins said that the transcripts provides a vital record of community involvement and helps us remember what happened. A tape, when everyone talks at once, is not valuable. Ms. Kaupp also said the transcript is valuable. Mr. Bernardo said that budget cutbacks are substantial. Ms. Hunter suggested that we keep the transcript but cut back to 10 meetings per year - one less in summer and skip December entirely. Ms. Hunter volunteered to make 20% less comments!

The next RAB meeting will be held on Thursday August 21st. Agenda items include the RABTAC and Thermatrix.

The RAB voted to hold the September meeting on Thursday September 25th.