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RESTORATION ADVISORY BOARD (RAB) MEETING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT CALVERTON
RIVERHEAD MASONIC LODGE, RIVERHEAD, NEW YORK
FEBRUARY 16, 2000

The sixth meeting of the RAB began at 7:00 pm and ended at 9:50 pm. RAB members attending were: community members Sid Bail, Louis Cork, Bill Gunther, Sherry Johnson, Jean Mannhaupt, Ann Miloski, Joe Pannone, and Warren Voegelin; Marsden Chen and Jeff McCullough from New York State Department of Environmental Conservation (NYSDEC) in Albany; Stan Farkas from NYSDEC in Stony Brook; Andrea Lohneiss representing the Town of Riverhead; Martin Simonson representing DCMC; and Judith Hare, Joe Kaminski, and Jim Colter from the Navy. Members absent included community members Henry Bookout, Lorraine Collins, Herb Golden, Randolph Manning, Bob Pohlman, John Quinn, and Vanie Tuthill; and representatives from New York State Department of Health (NYSDOH), Suffolk County Department of Health Services (SCDHS), the Nature Conservancy, and U.S. EPA Region II.

There were also a number of people attending from the local community.

WELCOME AND AGENDA REVIEW

Mr. Joe Kaminski began by welcoming Ms. Judith Hare back to the RAB. Ms. Hare said she was delighted to be back and turned the meeting over to the Community Co-chair, Ms. Sherry Johnson.

MEMBERSHIP AND STEERING COMMITTEE UPDATE

Ms. Johnson provided an update on the meetings of the steering/membership committees since the September 1999 RAB. The committees met in October 1999 and in January 2000 to discuss the offsite plume from the Southern Area and to discuss membership. The steering committee has had a couple of requests from individuals and from groups who would like to be represented on the RAB. At the January meeting,

the steering committee reviewed the attendance record of the community RAB members and identified several people or groups that have not attended RAB meetings that the steering committee wanted to replace with new members. One group who wanted to be represented on the RAB is the Peconic River Sportsman's Club. Also, Mr. Racaniello of Calverton expressed an interest in being on the RAB. As discussed at the January steering committee meeting, the community RAB members discussed replacement of non-participating community members with new members

Ms. Johnson indicated that Mr. John Quinn and the North Fork Environmental Council (represented by Mr. Henry Bookout) were the two members that they would vote on removing from the RAB. Mr. Quinn was originally appointed to the RAB in April 1998, but has not attended any of the RAB meetings. The North Fork Environmental Council also did not have good attendance at the RAB meetings and when contacted by Mr. Sid Bail, the council indicated that they did not have plans to participate further on the RAB.

The Community RAB members then voted on and approved the removal of Mr. John Quinn and the North Fork Environmental Council from the RAB. The Community RAB members also voted on and approved the addition of Mr. Vincent Racaniello and the Peconic River Sportsman's Club as Community RAB members. Mr. Racaniello was welcomed and joined the RAB members at the table.

Ms. Johnson noted that the other Community RAB terms would be ending in April 2000 and discussed how the Navy would formally announce continuation of the Community RAB member's terms. Ms. Hare indicated that the Navy could send a letter to each of the Community RAB members to reaffirm the members' commitment to serving on the RAB.

Meeting Postnote: The Navy originally planned to issue a letter by the end of February; however, because of the schedule of activities on the project, the issuance of the letter was delayed. Community RAB members will be provided letters requesting continued participation on the RAB along with their copy of the meeting minutes.

REVIEW AND APPROVAL OF MINUTES

The stenographer transcripts from the September 29, 1999 RAB meeting were paraphrased and summarized into meeting minutes. The minutes were mailed out to all the RAB members for review. No comments were made on the September 29, 1999 RAB meeting minutes and the minutes were approved as written.

Before beginning discussion of the next agenda items, Ms. Johnson requested to add an item to the end of the agenda to be referred to as "Other Topics."

SITE 2 – FIRE TRAINING AREA PRESENTATION AND QUESTION & ANSWER

As with the previous presentations on Sites 7 (June 1999 technical and RAB meetings) and Site 6A, Site 10B, and Southern Area groundwater (September 1999 technical and RAB meeting), the Navy developed the Site 2 presentation (using the GIS and software referred to as Environmental Visualization System [EVS]) to provide an understanding of the groundwater contamination and to identify data gaps for Site 2. Various maps were generated using the EVS and were submitted to the RAB. These maps include a series of maps that graphically show the vertical profile of specific chemical contamination in groundwater at Site 2.

Dave Brayack from Tetra Tech NUS, Inc., with computer support from Judy Lamey from Tetra Tech NUS, Inc., provided the EVS-based presentation for Site 2. Because of difficulty with the projector, the presentation was not provided on screen, but RAB attendees were provided with a copy of the presentation figures to reference during the discussion. These presentation figures were also provided with the RAB invitation letter.

Mr. Brayack provided a description of Site 2 – Fire Training Area and explained the well coloring system (for indicating concentration of chemicals detected in the well) At the "source area" floating free product (fuel floating on top of the groundwater) was found. Chlorinated solvents were found in groundwater throughout the site. From 1987 to 1996 free product (diesel related fuel) recovery was conducted and approximately 300 gallons of free product was recovered. Mr. Brayack indicated that there is still some free

product; however, only a thin layer (2 to 3 inches) is present in a few wells. There is a sheen on the groundwater in some other wells. So, there is little free product remaining at Site 2 that can be recovered.

An air sparging system is in place at the site, which was operated seasonally through about 1997/1998. The air sparging system bubbles air into the groundwater to mobilize volatile chemicals from the groundwater into the soil above the water table. The vapor in the soil is collected and treated by an offgas treatment system. The system worked well in the source area and concentrations of the volatile chemicals in the groundwater have been reduced to about 100 ug/l. When operating, the system pulls air through the soil that also helps promote biodegradation of chemicals in the soil. In particular, the petroleum products are biodegradable. The Navy estimates approximately 25,000 pounds of petroleum have been removed from the soil through biological degradation.

Mr. Brayack explained that groundwater at the site flows east/south east. Elevated concentrations of chlorinated solvents were detected at the fence line of the site, so the Navy put wells across the road from Site 2 to determine how far the chemicals in groundwater had migrated offsite. The groundwater in the wells offsite of Site 2 was found to be clean (the chemicals related to Site 2 were not detected in these wells), indicating that the downgradient extent of the groundwater plume is between the fence line and the road.

For the presentation of the Site 2 data, Mr. Brayack explained that similar chemicals were grouped for presentation of the data. This was done to reduce the number of figures necessary to understand the contaminant plume at Site 2. Chlorinated organics were presented together, where the highest concentration of the chlorinated solvent at each location was used to prepare the graphical presentation of the chlorinated solvent groundwater plume. Mr. Brayack explained that most of the groundwater data are from the 1991/1993 timeframe. The plume is likely to be smaller and/or at lower concentrations now because of the operation of the air sparging system at the site.

Mr. Brayack pointed out an unbounded area where because of the lack of data in the area, the EVS program was estimating a larger downgradient area of contamination. This was one of the data gaps identified in the technical meeting. Groundwater data for

chlorinated solvents in the area would be used to more accurately define the downgradient plume extent. Temporary wells, called profiling wells, would be used fill in the data gap in this area.

Mr. Brayack next discussed the EVS presentation for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds. He explained that the data for the four compounds were grouped in the presentation such that the highest concentration of the four compounds at each well was used in developing the EVS presentation. Most of the maximum concentrations were for xylene, so the extent of the plume is being mainly defined by xylene concentrations. Mr. Brayack pointed out the Northrop Grumman wells on the south side of the fence, used as production wells, may have influenced groundwater flow in the vicinity of the wells, such that groundwater contamination may have been pulled in the direction of the production wells when the wells were in use.

In answer to a question whether the "snap shot" provided by the presentation was inaccurate because the wells were sampled at different times and because the data were from the early 1990s, Mr. Brayack indicated that obtaining a more current "snap shot" of the groundwater concentrations was identified as a data gap and he would discuss that later on in his presentation.

A RAB member questioned what impacts the production well might have had on groundwater flow. Mr. Brayack replied that the contamination at the southeast corner of the property flows past the production well, so the Navy put wells between the plant production well and the contaminated plume. No impact to the groundwater has been found.

Mr. Brayack indicated based on the available data the Navy believes the contamination plume for BTEX is sufficiently defined. Mr. Brayack then discussed the Freon EVS presentation. He indicated that Freon is actually a series of chemicals that collectively are referred to as Freon. Freon was used at the facility for air conditioning and also for testing fuel line leaks. Generally during the investigation of groundwater contamination at the facility, the Navy has found Freon wherever fuel and chlorinated solvents have been detected in groundwater. Therefore the Navy has been tracking Freon separately

for each site under investigation. For Site 2, detections of Freon in the groundwater were within the chlorinated solvent plume.

In answer to a question of what the source of Freon at Site 2 may have been, Mr. Brayack indicated that the waste oils used for the fire training activities at Site 2 were likely contaminated with chlorinated solvents and possibly Freon. It is unlikely that the solvents or Freon alone would have been used for fire training activities because those types of chemicals do not burn.

Mr. Brayack indicated that although there were enough data to move into a remedial investigation, the Navy would like a current "snapshot" of groundwater concentrations to better determine the possible remedial alternatives. As is proposed for Site 7 (draft work plan provided to the regulators), there are enough data for the site to move into a remedial investigation, but a snapshot sampling of the groundwater would be conducted in conjunction with the feasibility study for Site 7. The same approach is proposed for Site 2, so that a work plan for snapshot sampling would be prepared and sent out for regulatory review.

There was some discussion on the timing of the snapshot sampling for Site 2. Mr. Colter indicated that the Navy is currently moving ahead with the work plans and sampling for Site 6/Southern Area and Site 7 (sampling expected to start in the spring of 2000). Site 2 would then follow, with work plan preparation next winter for start of field work in the spring of 2001. Because not all the work can be conducted at the same time, the Navy will need to develop a schedule and coordinate the schedule with regulator availability. NYSDEC indicated that generally they require 3 to 4 weeks to review and comment on documents. The RAB was interested in understanding the chronology of the activities to provide a general understanding of where the remedial activities at the sites at NWIRP Calverton fit in with each other.

There was also some discussion on the ranking of Site 2 for funding. It was explained that while Site 2 was ranked "high risk" for funding purposes (because of potential offsite impacts), at previous RAB meetings the RAB indicated a higher priority for Sites 6 and 7, so the Navy reprioritized those sites for funding. The Navy is preparing to begin field work for Sites 6 and 7, which would then be followed by preparation of a report of the

results of the investigation. Site 2 would be addressed after the investigations at Sites 6 and 7, and realistically, the Navy believes that field work at Site 2 could begin in about a year.

Ms. Hare also noted that because the Navy's goal is to transfer 100% of the property over to the township, the Navy's preference is to get the sites at NWIRP Calverton cleaned up as soon as possible. So, the Navy is in agreement with the RAB that work needs to be conducted as soon as possible. However, in addition to budgetary constraints, there are basic manpower constraints. The work plans need to be prepared and reviewed, the field work conducted, the data reviewed and evaluated, and then reports of the results prepared and reviewed.

UPDATE ON NAVY ACTIVITY AND THE FEBRUARY 16, 2000 TECHNICAL MEETING

Mr. Jim Colter talked about the technical meeting held early on the day of the RAB. The technical meeting was scheduled for early in February; but, because several people could not attend the meeting scheduled in Albany, the meeting was postponed. The meeting minutes from the technical meeting are included as attachments to the RAB meeting minutes.

The technical meeting was attended by the Navy and its consultants, Marty Simonson representing the RAB, Marsden Chen and Jeff McCullough from the NYSDEC Albany office, Stan Farkas from the NYSDEC Stony Brook office, and Sy Robbins from the local health department. Since the last RAB meeting, the Navy has prepared several draft reports and has provided the reports to the regulators. These reports will also be provided to the RAB members. At the technical meeting, the Navy went over the highlights of the documents to assist with the review of the documents. Also, the Navy discussed a schedule for regulatory review of the documents and agreed on a date when comments would be provide to the Navy.

The items that were discussed at the technical meeting include:

- Third site in series of GIS presentations: Site 2 – Fire Training Area (similar to Mr. Brayack's presentation to the RAB)

- Data gap work plan for the Southern Area: The draft work plan was submitted at the technical meeting
- Draft report on free product recovery at the Fire Training Area and the Fuel Calibration Area
- Draft work plan for the natural attenuation investigation for the Fuel Depot (Site 7): The draft work plan was submitted at the technical meeting
- The offsite investigation in the northeast side of the facility: Navy now has access to the property near the northeast side of the facility to conduct additional investigation related to the Electronic Countermeasures Area.
- Investigation of Site 1 bank stabilization
- Issuance of RCRA permit: The Part 373 permit was issued for public comment in January 2000.

Data gap work plan for Site 6/Southern Area

The draft work plan has been submitted and the work plan was discussed at the technical meeting. The Navy is planning to start field work in April 2000.

As provided in the work plan, the Navy will install 3 profiling wells in the source area (200 foot well), upgradient of the source area (100 foot well), and downgradient of the source area (100 foot well). Three offsite profiling wells (in the Southern Area) will be installed to bound the downgradient extent of the offsite plume. The wells will be approximately 80 feet deep. The Navy plans to put the offsite wells in first, sample and analyze the wells using fast turn around to determine whether the wells adequately bound the downgradient extent or whether additional wells further downgradient are necessary. If additional wells are determined to be necessary, the wells will be installed as part of the field work. In addition, a groundwater flow study in the area will be conducted to confirm how water is flowing at the site.

One possible delay for field work noted by the Navy is obtaining site access for the installation of the offsite wells. The Navy needs to obtain permission from the property owners to put in the offsite wells. The county owns some of the property and the Navy has asked Sy Robbins for assistance with site access. Also, some of the property is owned by the Sportsman's club.

Free Product Recovery

A draft report was prepared to identify possible methods to address the remaining free product in groundwater at Sites 2 and 6. The Navy has conducted free product removal and although some oil remains, a distinct, recoverable free product layer no longer exists. For Site 2, the Navy is proposing to bail out the wells on a monthly basis. NYSDEC suggested at the technical meeting that the Navy may want to reconsider source removal (removal of the oil contaminated soil). Previously the estimated amount of contaminated soil was much greater (about 20,000 cubic yards). Now it is likely that the amount of contaminated soil is approximately 5,000 cubic yards. The Navy will look into the suggestion further and determine whether digging the soil up is the more effective remedy at this point.

At Site 6, a free product layer or a sheen was not found. The Navy plans to use an absorbent material in the wells at Site 6 to soak up the remaining oil in the groundwater.

Draft Work Plan for Site 7

The draft work plan for a natural attenuation study has been submitted. The study will be used to determine whether natural attenuation is viable for Site 7. In addition, the work plan includes collecting a current snapshot in time for groundwater concentrations to assist in the evaluation of possible remedies for the site.

Mr. Colter explained that the Navy is planning to conduct source removal to address the higher concentrations of contamination and use monitored natural attenuation (MNA) as a polishing treatment for the lower concentrations of contaminants at Site 7. Mr. Marsden Chen agreed that source control was important and that NYSDEC does not generally support use of MNA to address the source of contamination. NYSDEC supports MNA for use as a polishing treatment.

Electronic Counter Measures Area

Mr. Colter explained that investigation of the site has been conducted and low levels of chlorinated solvents were detected. Suffolk County had some wells nearby that had chlorinated solvents at about 100 ug/l. The Navy then submitted a work plan to conduct sampling offsite to determine the extent of the chlorinated solvents plume; however, the Navy was not able to obtain site access from the nearby property owner. There is a new property owner and the Navy is working on getting property access to install the offsite wells. The Navy is currently working out the details with the new property owner and will be meeting with the owner to finalize the arrangements.

Site 1 Northeast Disposal Area

The Navy is proposing stabilizing of the eroding bank at Site 1 now and conducting the final remedy in the future. However, the local state wetlands section expressed some significant concerns with the Navy's proposed activities. The local state wetlands section is concerned that the bank stabilization would have too significant of an impact on the wetlands at Site 1. The Navy is currently looking into ways to minimize the impacts, but does not believe that zero impact will be possible. The state currently wants zero impact; therefore, it may take several months to develop a compromise.

A RAB member questioned whether excavation of Site 1 would be included as a final remedy and did not see how bank stabilization now would fit in with a final remedy. Mr. Colter indicated that although they were not at the FS stage, generally for a landfill, excavation is not usually the remedy selected. This is because of the cost and the difficulty and potential impacts from excavation of the landfill material and then disposal at an offsite landfill. Typically for landfills, capping is the preferred remedy. Mr. Chen indicated to the Navy that because NYSDEC prefers to utilize the EPA's presumptive remedy for landfills (which is capping), that the preparation of a Corrective Measures Study (CMS) for this site would not be required.

RCRA Permit

Several months ago the Navy submitted the data requested by NYSDEC for preparation of the RCRA permit. The draft permit has been made available for public comment. The Navy put an advertisement in the newspaper about the availability of the permit for public comment and also had paid radio announcements aired. The advertisement and the radio announcement were provided to the Navy by NYSDEC and they require anyone interested in reviewing the permit to contact NYSDEC for a copy of the draft permit.

OTHER TOPICS

Ms. Johnson indicated that at various RAB meetings the RAB has made information requests to the Navy and has not been satisfied with how the Navy has been responding to those requests. The community RAB would like to come up with a process for the Navy to respond to their requests. It was suggested that the Navy respond to the request in writing within 30 days after the RAB makes a request. Another suggestion was to summarize the requests in the meeting minutes as part of an action item list. It was decided that a recap of action items at the RAB meeting would be added to the agenda for subsequent RAB meetings and an action item list would be included with the RAB minutes (see last page of minute text).

For the items brought up tonight the resolution was for the Navy to provide the RAB with a timeline for activities at the sites at NWIRP Calverton. For the issue related to thallium, the Navy indicated that as per the response to a NYSDEC comment on thallium at Site 1, the issue would be addressed further as part of discussion of Site 1. Based on the request for information on jet fuel, the Navy provided information to Ms. Jean Mannhaupt at the September 1999 RAB.

DATES AND DISCUSSION TOPICS FOR FUTURE MEETINGS

The meeting went late and topics were not identified. It was decided that the Navy co-chair and Community co-chair would coordinate for the next meeting.

CLOSING REMARKS

All were thanked for participating in the meeting.

POSTSCRIPT NOTE

Stenographer's transcripts are prepared for RAB meetings to assist the Navy in preparation of meeting minutes. The transcripts are available in the NWIRP Calverton Information Repository at the Riverhead Free Library. To assist the stenographer, RAB members and other attendees at the meeting are requested to speak one at a time for the stenographer to accurately transcribe the meeting discussions. Any participant at the RAB meeting who would like to have their commented formerly documented for the record is requested to state their name prior to speaking.

The notice for the February technical meeting and RAB meeting was sent via Federal Express (except for RAB members use a post office box address) and the notice was sent via email to members who provided the Navy with their email address. Members who have not provided email addresses to the Navy and would like to be added to the email address list should email Debbie Cohen at *cohend@ttnus.com*.

ACTION ITEMS

Action Item	Person(s) Responsible	Tentative Due Date	Status
Get information on new RAB members, names, addresses, phone numbers, email address	TtNUS (D. Cohen)	Before next RAB	Names included on mailing list- April 2000
Letter to Community RAB requesting continued participation on the RAB	Navy	End of February *	Included with February 2000 meeting minutes
Chronology of activities at NWIRP Calverton	Navy	Not Identified	Agenda Item for next RAB
Add action item list to the minutes and discussion to the agenda	TtNUS (D. Cohen)	For Feb 2000 RAB minutes and subsequent RABs	Added to February 2000 meeting minutes
Free Product Recovery Report	Navy	Not Identified	Will be submitted under separate cover

* Because of project schedule, the issuance of the letter was postponed.

ATTACHMENTS

Agenda

Minutes from February 16, 2000 Technical Meeting

Agenda

Restoration Advisory Board
Naval Weapons Industrial Reserve Plant Calverton

February 16, 2000
Riverhead Masonic Lodge, Riverhead, NY
7:00 p.m.

Welcome and Agenda Review
Judithanne Hare
Naval Air Systems Command

Review and Approval of Minutes
All Members

Membership and Steering Committee Update
Sherry Johnson
Community Co-chair

Site 2 EVS Presentation and Discussion
Dave Brayack
Tetra Tech NUS, Inc.

Update on Activities at NWIRP Calverton and February 16 Technical Meeting
Jim Colter
Naval Facilities Engineering Command – Northern Division

Dates and Discussion Topics for Future Meetings
All Members

Closing Remarks
Judithanne Hare
Naval Air Systems Command

Presenters will be available after the program for questions.

TRC MINUTES - FEBRUARY 16, 2000
MEETING HELD AT NYSDEC STONY BROOK OFFICE
NWIRP CALVERTON, NEW YORK

ATTENDANCE

Mr. Jeff McCullough (NYSDEC)
Mr. Marsden Chen (NYSDEC)
Mr. Stan Farkos (NYSDEC)
Mr. Al Taormina (NAVAIR)
Mr. Marty Simonson (DCMC)
Mr. Bob Ingram (Navy)
Ms. Marlene Lindhardt (Foster Wheeler)
Mr. Jim Colter (Navy)
Mr. Todd Bober (Navy)
Mr. Steve Lehman (Navy)
Mr. Sy Robins (SCDHS)
Mr. Dave Brayack (TtNUS)
Ms. Judy Lamey (TtNUS)

INTRODUCTION

The agenda was distributed. Individuals in the meeting identified themselves and their organization.

SITE 2 - Fire Training Area

The EVS data for Site 2 was presented. In general, the plume at Site 2 is reasonably well defined, although there are some concerns with the extent of off site groundwater contamination. The Navy plans to conduct additional work at Site 2 and in particular with the deeper off site groundwater (40 to 100 feet below ground surface). As part of this investigation, another round of on site groundwater samples will be collected and a monitored natural attenuation evaluation of the site groundwater will be conducted.

Foster Wheeler discussed the findings of the free product recovery testing conducted at Sites 2 and 6A. In general, these tests indicated that free product recovery using groundwater depression would be significantly more expensive than originally planned. The primary cost factor resulted from the observed poor adsorption of organics on liquid phase activated carbon. Foster Wheeler attempted to conduct vacuum assisted product recovery tests. However, by the time the tests were conducted (October), measurable free product was no longer present at the site for the year (because of a hurricane). The vacuum assisted product recovery testing will be conducted during the summer of 2000. In the mean time, Foster Wheeler will implement adsorbent material to start recovery of free product. The NYSDEC indicated that they prefer excavation of contaminated media where feasible but that they would review the document by March 16, 2000.

SITE 7 - FUEL DEPOT

The Navy discussed the status of the Site 7 work. The Monitored Natural Attenuation Work Plan was discussed. In general, an internal draft of the CMS had been generated. However it was noted that most of the data was several years old and more importantly, the Navy wants to consider monitored natural attenuation as an option. As a result, some additional field work is

proposed. Also, because this work was being conducted, the Navy decided to install additional sentry wells. There was general agreement and NYSDEC indicated that they would issue an approval/acceptance letter.

SITE 1 - NORTHEAST POND DISPOSAL AREA

The Navy prepared an EECA for interim bank stabilization. After an initial review by NYSDEC and resulting comments, the Navy decided to add another alternative that would stabilize the bank without impacting the adjacent sediments. In particular, there was concern with loss of wetlands and potential impacts on the Tiger Salamander. Steve Lawrence of NYSDEC was in the meeting for these discussions.

SITE 9 - ECM AREA

The Navy indicated that there are new owners of the property adjacent to the ECM area. The Navy is talking to the new owners and anticipates being able to negotiate an access agreement.