



DEPARTMENT OF THE NAVY

CRANE DIVISION
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361
CRANE, INDIANA 47522-5000

IN REPLY REFER TO:
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MEMORANDUM

From: Installation Co-Chair
To: Restoration Advisory Board Members
Subj: RESTORATION ADVISORY BOARD (RAB) MEETING

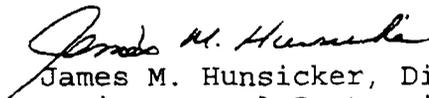
Encl: (1) October 7, 1998 RAB Meeting Minutes

Crane Division, Naval Surface Warfare Center (NAVSURFWARCENDIV Crane) conducted, on Center, a RAB meeting on October 7, 1998. Enclosure (1) is a copy of the minutes from that meeting.

The next NAVSURFWARCENDIV Crane RAB meeting is scheduled for Tuesday, January 26, 1999. The meeting will take place on Center at Building 3241 in conference room B-C from 1200 to 1600. A reminder and an agenda will be sent out approximately two weeks prior to the meeting. Your ideas and input for additional topics to, or presentations for, the agenda would be especially welcome. Currently, the proposed agenda for the next meeting includes:

- Presentations concerning progress of the Full Scale contaminated soil operations for the Bioremediation Facility
- Presentation concerning status of FY99 Installation Restoration Projects
- Brainstorming session concerning raising public interest in the NAVSURFWARCENDIV Crane RAB

For questions, comments, or information, please contact NAVSURFWARCENDIV Crane POC, Ms. Christine D. Freeman, Code 09511, telephone 812-854-4423.


James M. Hunsicker, Director,
Environmental Protection Department

Subj: RESTORATION ADVISORY BOARD (RAB) MEETING

Distribution:

ADMINISTRATIVE RECORD

Carolina BioServices (D. Brownlee)

Carolina BioServices (D. Terrell)

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R. Walker

FOEJN (L. Stone)

IDEM (S. Riddle)

IDEM (M. Timmermann)

IDEM (J. Workman)

MK (D. Beall)

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NAVSEASYSKOM (SEA 00T)

NAVSURFWARCENDIV Crane (00)

NAVSURFWARCENDIV Crane (09)

NAVSURFWARCENDIV Crane (095)

NAVSURFWARCENDIV Crane (0910)

NAVSURFWARCENDIV Crane (0911)

NAVSURFWARCENDIV Crane (0914)

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NAVSURFWARCENDIV Crane (PA)

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USEPA Region V (DRP-8J)

USCEWES (GG)

Restoration Advisory Board Meeting Minutes October 7, 1998

Crane Division, Naval Surface Warfare Center (NAVSURFWARCENDIV Crane) conducted a Restoration Advisory Board (RAB) Meeting, Wednesday, October 7, 1998, on Center in Crane, IN, at Building 3241 in conference room B-C. Visitors from the Keystone Center were already in attendance prior to the start of the RAB meeting. From 1245 to 1600 hours an informal meeting was called to order. See Attachment (1) for the list of attendees. Mr. Jim Hunsicker, RAB Installation Co-chair and Environmental Protection Department Manager opened the meeting.

Mr. Hunsicker introduced Mrs. Carol Ann Witt-Smith of the United States Environmental Protection Agency (U.S. EPA). Mrs. Witt-Smith spoke about the U.S. EPA perspective on the past, present, and future Corrective Action Program at NAVSURFWARCENDIV Crane. The notes used by Mrs. Witt-Smith in her presentation are included as attachment (2). Questions and concerns raised during Mrs. Witt-Smith's presentation involved public participation efforts. When asked a public participant voiced his opinion on why there was not much public participation at NAVSURFWARCENDIV Crane. He stated that the public was not concerned about the activities at NAVSURFWARCENDIV Crane, because everyone has a relative, neighbor, or friend who works at NAVSURFWARCENDIV Crane.

After a brief break, Mr. Hunsicker began his presentation concerning the NAVSURFWARCENDIV Crane Environmental Protection Department and the status of the OB/OD Subpart X Treatment Permit. The slides used by Mr. Hunsicker in his presentation are attached as attachment (3).

Another break was taken around 1430. At this time the Keystone Center visitors left the RAB meeting to continue touring various NAVSURFWARCENDIV Crane facilities. The remaining RAB attendees were taken to the Bioremediation Facility for a tour. The RAB meeting was adjourned at 1600.

**RESTORATION ADVISORY BOARD
MEETING ATTENDEES LIST
FOR OCTOBER 7, 1998**

NAME	TELEPHONE & FAX	ORGANIZATION REPRESENTED AND MAILING ADDRESS
Michelle Timmermann	317/232-3262 fax 317/232-3403	IDEM
JEFF WORKMAN	317/232-3221 FAX 317/232-3403	IDEM
David Brownlee	803-535-0080	Carolina Bio Services
DAN TERRELL	812-384-0724	" " "
Jeff Myers	812 659-3788	Greene Co Solid Waste District
Carol Witt-Smith	312 886 6146 312 353 4188 FAX	U.S. EPA Reg. 5
Leloune Stone	(408) 883-1254 FAX Same	Ft. Ord Environmental Justice Network
Christine Freeman	812 854-4423 4177	NAVSURFWARCEN DIV Crane B-3260 Code 09511 300 Highway 361 Crane, IN 47522-5201
Others attended but did not sign this sheet.		

**United States Environmental Protection Agency (U.S. EPA) Region 5
Perspective on the Past, Present and Future of
Naval Surface Warfare Center (NSWC) - Crane Division Compliance
with the Resource Conservation and Recovery Act (RCRA)**

**Carol Witt-Smith
Waste Management Branch Corrective Action Expert**

History of U.S. EPA and Indiana Department of Environmental Management (IDEM) involvement:

- | | |
|-----------------|---|
| Prior to 1980 | Army Corp of Engineers performed evaluations and investigations under the Installation Restoration Program for the Navy. |
| 1980 | Part A Notification of Hazardous Waste Activities, Part B submittal for Hazardous Waste Storage. |
| Throughout >80s | State lead on establishing ground water program for land disposal units (waste pile and surface impoundments at the Ammunition Burning Grounds (ABG)) and closure of those units, and the closure of a storage tank (R-150) and the popping furnace (by Building 146).

Corrective Action RCRA Facility Assessment performed for the entire base using an U.S. EPA contractor. Over 100 Solid Waste Management Units (SWMUs) identified. |
| 1989 | Part B application submitted for 40 CFR Part 264, Subpart X Miscellaneous Units (2 open burning areas (ABG and Old Rifle Range (ORR)) and open detonation (Demolition Range)) State issued air variance under Clean Air Act for OB/OD. Little to no public interest on the permit. Public Notice and Hearing held in Bedford (closest largest town with a newspaper). |
| 1990 | U.S. EPA and IDEM issued a joint RCRA Storage permit for Container Storage Unit. Federal portion included Waste Minimization, Storage of Dioxin Wastes, Land Ban, and Corrective Action. Corrective Action included 30 SWMUs and public participation and dispute resolution for funding issues. |
| 1995 | U.S. EPA and IDEM issued a joint renewal for the RCRA Storage Unit and the proposed replacement Incinerator (replacing the popping furnace, currently no funding). Since the State received RCRA authorization in several areas, the Federal portion included Waste Minimization, Toxicity Characteristic Requirements (closure of a grit blast paint chip waste pile), Corrective Action included 33 units (newly identified ones included, one unit removed due to completion of an Interim Measure removal), Air Emission Standards, and compliance with the Endangered Species Act. No public interest again. |

Corrective Action:

Public Participation:

Restoration Advisory Board was created because of the requirement in the original storage permit. It started as a Technical Review Committee with Navy Northern Division represented at the time. The Corp of Engineers was primarily used for investigations at the site. We had more interest by local county environmental offices and neighboring Padanaram, but meetings required too much technical review and discussions and went over general public heads. We wanted members as decision makers but were throwing too technical information at them. Slowly members left or requested to have presentations but not review documents. Meetings were tried in Bedford in the evening but had little to no participation other than the Agencies and the Navy.

This has lead to the more recent style, now with Southern Division involvement and more cleanup contractor presentations. The Base environmental Office (Chris Freeman) arranges the meetings. Jim Hunsicker is the Navy lead rep. Both IDEM and U.S. EPA attend the meetings.

We have fluctuation of membership from 3-6 outside "public" members. Meetings are during the workday and usually include site tours of the area discussed. Nothing is hidden. Mistakes by anyone concerning the process and implementation are discussed. The RAB is meant as a sounding board, information outlet, and feedback tool. Unfortunately we have a hard time keeping members or interest.

A draft Community Relations Plan was created (not finalized). U.S. EPA has encouraged if there is a lack of participation in meetings, to reduce the meetings, we are now down to quarterly, potentially going to semi-annual depending on activities being done. Other outlets such as fact sheets, distribution of written materials to the surrounding county libraries, and more distribution to base employees (through e-mail, base TV, officer's club, on-base family groups, etc.). These have yet to be worked out.

Public participation will also occur for any corrective action permit modification, including meetings, hearings, and notices.

Setting priorities:

Originally units were evaluated based on them being operational (seeking a permit), proximity to the base boundary, *impact internally, amount of information known about the unit.* Recently, priorities established on continuing work, funding, meeting Navy and U.S. EPA goals to get sites finished and removed from further action. Now, Core team created to reestablish priorities based on partnering goals from U.S.EPA and the Navy.

Where are we:

Very Busy! Complex site. Many units have concurrent actions going on, using several Navy contractors. Three site (ABG, ORR, Demo) risk assessments almost complete, RCRA Facility

Investigations finalizing reports, ready to monitor, permit, and look at innovative technologies (ABG composting, spring technology, natural attenuation). A number of units have had ground water and soil investigations, going into risk assessments. Several units Interim Measures stabilization has removed the sources and soil contamination (some likely for no further action requests). 4 units have composting approved as an interim measure for soil. A few units we've barely looked at beyond general paperwork investigations, and a couple haven't had anything started yet.

The new listing of priorities will be made available once the core team has finalized it.

Dispute resolution on funding availability was formally requested twice.

Partnering:

U.S. EPA suggested utilizing partnering after problems occurred with one of the Navy contractor's implementation and quality issues. Discussions started in 1995/1996. Last week (Sept. 1998) U.S. EPA and the Navy, and the Navy contractors met to kick off the creation of NSWCs partnering program. Both Agencies committed to Partnering, but, partnering here is going to have a different perspective than that of the BRAC system since it is an operating base with little to no real public interest. A core team was created (essentially the staff that were leads anyway). There is a *Acore@* for general partnering. Members may shift in and out depending if discussions are solely concerning operating units versus corrective action only SWMUs. Management will be informed better, and help in funding, dispute issues, and involvement of IDEM. Currently there is no State involvement in corrective action other than attendance of RAB meetings. This is because of authorization. We are looking at the future renewal when the State would pick up corrective action now and the transition of information. We see partnering as a way to better communicate and document what is happening.

Difficulties with Corrective Action and some fixes (a personal perspective):

U.S. EPA technical staff becoming educated about munitions. We had some training by base personnel in the very beginning. Otherwise its been learn by screaming where can I get information about your site, what are you doing in other regions. A guessing game. There needs to be better communication of munitions from the DoD to U.S. EPA and the States on the basics. (How is it made, how do you demil, how can you treat it (OB/OD), what potential byproducts and degradation products occur, how to sample environmental media for explosives, metals, and organic matrices, and dyes and other components, etc.)

The Navy not having a good sense of all the environmental contaminants to be investigated (we are now working on explosive degradation product lab methods, dye analysis). There has always been an attitude the RDX, HMX and TNT are the only things to monitor for the primary explosives this is not state of the art or good science any more.

Contractor implementation problems (scheduling and construction delays on compost facility, dye run-off, TCE sump overflows). No matter how well you think your approved plan is, something will always go wrong, or needs to be added since you didn't think that problem would occur. (Like the screener not handling the wet soil, the coyote invading your lined

pond, the acid leaching of potatoes, etc.)

Navy and U.S. EPA having to stop priorities to fix implementation fires. Very time consuming to straighten out the problem. Requires a lot of Navy time managing contractor quality. Complex sites take time and a lot of management. We are looking at better resource allocation to get things done more efficiently.

Education on what is happening on explosives research. Cold Regions sampling techniques, phytoremediation studies, other composting projects. The Region spends a great deal of time communicating with other regions to exchange technical information. There seems to be a lack of exchange within the various DoD groups. Army not telling Navy about sampling methods, etc. There needs to be a better way than individual tech staff spending time researching topics and searching for solutions that are already potentially out there. Why reinvent the wheel? We exchange some information within EPA through the Federal Facility Forum and the Subpart X workgroup, but that is not enough. Unless you have time as an individual to search the Internet (which I don't, since I'm swamped with plans to review) then you start asking too many questions and get to the point of saying can I make a good science based decision or is my risk-taking going to cause a problem. You get frustrated.

Examples: NSWC composting was modeled after Region 10's approved CERCLA compost sites. We still don't have a clear viewpoint of toxicity worm testing. The Agency is struggling with getting agreements on institutional control agreements with operating bases, how do you do them? How do you test for dyes in environmental media? Testing bugs for contamination, what goes into the analysis plan?

Quality of plans have changed over the years and the level of quality the region demands. Region 5 has a much more stringent QAP program than many states or regions. For years we sampled from a geologist's perspective of define the rate and extent of the problem and then we can look at potential remedies. Now the wave is risk assessment and land uses drive the goals and we have to have even lower quality assurance levels met, and this causes resampling many sites we thought were defined. The important thing we learned is that everyone on the project has to have clearly defined and agreed to objectives or why sample.

Timeliness and meeting Agency objectives. We've had problems with submittals or approvals on both sides. Resources have a play in this. If one person takes care of 33 units and other sites, it's hard to keep up. Something has to be shelved at times. We also see problems at complex sites in general, not just DoD, that we credit the beginning and end of the first unit, or the end of the entire facility, but tracking mechanisms aren't set up to report to management, headquarters or Congress that we are digging soil, we are cleaning some things up, and this is how we've progressed, and what we've protected in the process.

Endangered Species Act compliance:

Surveys have had to be performed for Indiana bat. We found a bat and it triggered consultation. We have to do a bug study to evaluate food-chain effects, and we've had to move a tank storage area to protect trees for the bat at Dye Burial Grounds. The Navy is working on a base-wide plan for the bat with U.S. Fish & Wildlife Service, DOD, and EPA.

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required to comply with the permit conditions for compliance with the act at RCRA regulated areas. Communication with U.S. F&WS is hard since they are in the field or on other priorities. We have to work on better partnering with them as a stake holder and decision maker.

Compliance with CERCLA:

NSWC is a non-NPL site.

Current status: still in a scoring phase. Probability of scoring high due to drinking water source on-site and existing contamination.

Regional view that RCRA is taking lead to comply with intent of CERCLA, since potential CERCLA issues are covered as Solid Waste Management Units under RCRA. The site would need to be evaluated if there were any areas that would solely be covered by CERCLA such as one-time spill events.

Realignment issues covered so far under RCRA Corrective Action. Assessing impact to SWMU area, parking lot approved to be built over a SWMU solid waste construction debris area.

IDEM BRAC office was actively participating in reviews and RAB in the past. Current status is no involvement of that office do to lack of request for BRAC funding support as far as we know.

Munitions Rule compliance state:

IDEM has not created State rules yet. No authorization request yet. Storage in magazines would eventually be handled by the State. Munitions rule issues concerning ranges will be handled right now under the corrective action provisions for ranges identified as SWMUs. NSWC had voluntarily agreed to cover active testing areas under corrective action. Munitions management for staging prior to OB/OD will be included in the Subpart X permit.

U.S. EPA has agreed that the OB/OD areas would become authorized to accept wastes from other bases, within the confines of their permit requirements.

OB/OD Permitting:

U.S. EPA is committed in getting a permit decision out in FY 99. This is due to State air variance extensions could end at any point, and almost caused a shut down two years ago.

Why 9 years of review? Lack of U.S. EPA guidance on OB/OD, lack of knowledge about munitions for staff. Subpart X National Workgroup has tried to issue guidance but there always seems to be technical or funding or knowledge level problems to do this. We've established basic criteria through meetings such as don't burn on the ground, look at every media, according to the rule, provide air modeling if sampling can't be done. A risk assessment of some level needs to be included.

As staff in EPA change and the States get authorized, there seems to be a disconnect of these basic concepts and lack of consistency between regions and states. In Region 5 all OB/OD requires soil and ground water sampling. Shredders and indoor units may only have to address air issues. The level of detail seems to vary. NSWC has always been one of the first models, but OB/OD permits issued by states are not necessarily meeting the same level of good science that is happening here. IDEM is not authorized for Subpart X. All other Region 5 states are. Region 5 has provided assistance on shredders to states that request help on interpretations.

There needs to be created technical issue papers or more directives on OB/OD basics such as good designs, best operating practices, environmental sampling, etc. Karst conditions have also caused general problems in meeting regulatory requirements and being creative.

We are finally close to permitting. The risk assessment (which addressed human and ecological risk for all media, with current and future uses) is almost finalized. December expectation. The ground water program is being established. December expectation. The last Part B version was 1993 and is in the process of being updated by the end of December. An air model report is being approved. The risk issues at this site are being driven by Manganese, and lead for State Air compliance. The current conditions report states that ground water at the ABG area poses a human risk is used as a drinking water source.

The risk assessment and media investigations have been funded not only for permitting, but for corrective action and closure. The idea is one program for all three regulatory requirements. This has worked well in getting the investigations funded and prioritized.

The permit will include evaluations of technology improvements, further waste minimization, and trying to maintain state of the art. Funding will be an issue on some of these issues. The air variance requires technology evaluations and the RCRA permit will likely continue this. There have to be ways of frequently evaluating waste streams to look for new demil, better unit improvements (*pads under pans, taking care of track out*), handling potentially contaminated materials in a more environmentally sensitive manner than OB, etc.

Overall Relationship between Region 5 and NSWC:

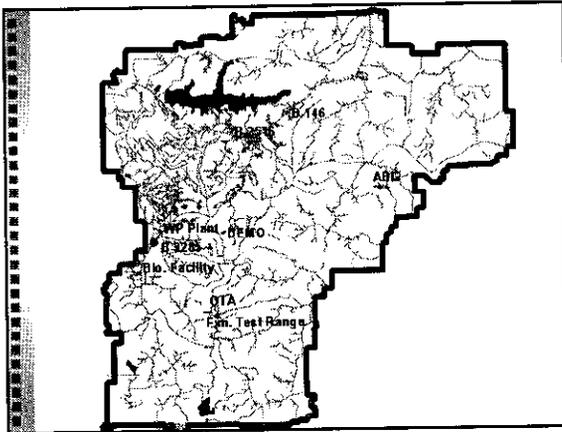
Excellent. The individuals working together no matter what part of the Navy sections, including the lawyers, has always been a good working relationship. People are never scared to say their opinion and work things out. We may not always agree, but resolutions are made and plans and permits are getting approved. EPA anticipates NSWC will be operating for a long while and our permits must be effective to ensure compliance. We hope that the corrective action list can eventually get reduced only to the sites that have to be maintained as landfills or resolving ground water problems.

Environmental Protection Department Overview and OB/OD Subpart X Treatment Permit Status

Mr. James M. Hunsicker,
Environmental Protection
Department Manager

HAZARDOUS WASTE MANAGEMENT (RCRA)

- STORAGE & TREATMENT UNITS
 - ◆ Hazardous Waste Storage Facility - Bld. 2993
 - ◆ Ammunition Burning Grounds - Open Burning
 - ◆ Demolition Range - Open Detonation
 - ◆ Old Rifle Range - Open Burning
- RCRA permit held by Navy host
 - ◆ Army operates Open Burning/Detonation units



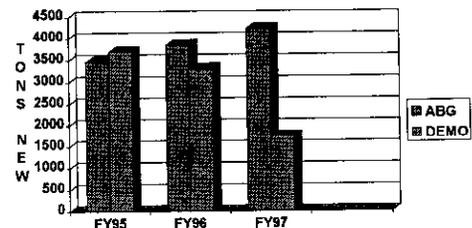
GENERAL RANGE INFORMATION

- Ammunition Burning Grounds (ABG)
 - ◆ 40 acres treatment area 80 acres total
 - ◆ 70,000 lbs./day N.E.W. capacity (DDESB)
- Demolition Range (DEMO) / Old Rifle Range (ORR)
 - ◆ 80 acres treatment area 120 acres total
 - ◆ 245,000 lbs./day N.E.W. capacity (DDESB)
- All ranges are active (none scheduled for closure)

RANGE OPERATIONS

- ABG
 - ◆ Can operate daily
 - ◆ Limited by weather restrictions
 - ◆ Normally operate 12 months a year
- DEMO/ORR
 - ◆ Can operate daily
 - ◆ Limited by weather restrictions
 - ◆ Normally operate 8 months a year

TREATMENT TRENDS



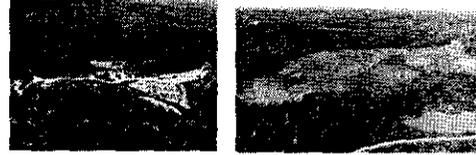
NOTE: NEW tracked by each treatment unit and reported monthly to state regulators

HAZARDOUS WASTE MANAGEMENT (RCRA)

■ STATUS OF PART B PERMITS

- ◆ Hazardous Waste Storage Permit
 - ✦ Issued December 1989
 - ✦ Renewed August 1995
- ◆ Open Burning / Open Detonation Permit
 - ✦ Application Submitted November 1988
 - ✦ Awaiting Draft Permit to be Issued March 1, 1999
- ◆ Combine OB/OD & Storage Permits in 2006

RCRA SUBPART X



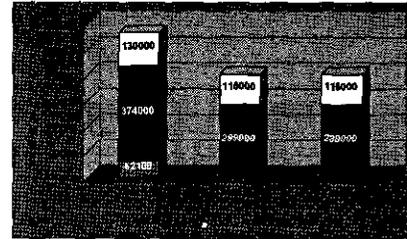
■ OPEN BURNING & DETONATION PERMIT

- ◆ Cost 2.3 Million Dollars to Date
- ◆ Endangered Indiana Bat May be an Issue
- ◆ June 1, 1999 is Target Date for Issuance of Final

ASSESSMENTS & PLANS

- Human Health & Ecological Risk Assessment
- Air Risk Assessment
- Groundwater Monitoring Plan
- Quality Assurance Procedures Plan
- Endangered Species Monitoring Program

GROUNDWATER MONITORING COSTS



MILITARY MUNITIONS RULE

- NSWC Crane has been granted a RCRA storage permit modification to accept off-site explosive hazardous waste.
- We are currently developing a standard procedure for acceptance of off-site explosive hazardous waste in accordance with the Military Munitions Rule.