



DEPARTMENT OF THE NAVY

NAVAL WEAPONS STATION EARLE  
201 HWY 34 SOUTH  
COLTS NECK, NEW JERSEY 07722-5001

IN REPLY REFER TO  
5090  
SER 043/719  
23 Jan 97

From: Commanding Officer, Naval Weapons Station Earle  
To: Distribution

Subj: MINUTES OF NAVAL WEAPONS STATION EARLE RESTORATION  
ADVISORY BOARD (RAB) MEETING OF 14 NOV 96.

- Encl: (1) Naval Weapons Station Earle briefing "Pistol Range Clean up, Sites 24 & 25," prepared by Mr. Gregory J. Goepfert, 14 Nov 96.  
(2) "Firing Range Remediation, Naval Weapons Station Earle, Colts Neck, New Jersey," prepared by Metcalf & Eddy, Oct 96.  
(3) "Bioslurping Pilot Study, Naval Weapons Station Earle," prepared by Mr. Joseph Gray, Foster Wheeler Environmental Corporation, 14 Nov 96; "Groundwater Treatment System," Carbitrol Corporation, 20 Jun 96.  
(4) "Remedial Investigation Status," prepared by John Kolicius, Naval Facilities Engineering Command (NAVFACENGCOM), 14 Nov 96.  
(5) "Installation Restoration Program, Naval Weapons Station Earle - 1997," prepared by John Kolicius and Gregory J. Goepfert, 14 Nov 96.

1. A meeting of the Naval Weapons Station Earle RAB was held on Thursday, 14 Nov 96 at 7:00p.m. in Building C-54 (Conference Room), Naval Weapons Station Earle. The following Station and community representatives attended.

NAME	ORGANIZATION
John C. Shick	Commander Naval Weapons Station Earle
Gus Hermanni	Supervisory Environmental Engineer, WPNSTA Earle
Gregory J. Goepfert	Environmental Engineer, WPNSTA Earle
John Kolicius	NORTHNAVFCENGCOM
Bob Lewandowski	NORTHNAVFCENGCOM
John Mayhew	NORTHNAVFCENGCOM
Lester Jargowsky	Monmouth County Health Department
Bob Marcolina	New Jersey Department of Environmental Protection
Jeff Gratz	EPA Region II, Project Manager
Robert Weston	Asbury Park Press
Mike Warminsky	Metcalf & Eddy, Inc.
Janet Coakley	Howell Township, Environmental Commission
William J. Monahan	Tinton Falls Environmental
Mary Lanko	Resident, Howell township
Merwin Kinkade	Tinton Falls
Marilyn Boak	Colts Neck, Board of Health

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2. The minutes of the 15 Aug 96 meeting were reviewed, approved and entered into the record.

3. Mr. Goepfert provided a briefing on the cleanup of Sites 24 and 25, Pistol Range Sites (Encl (1)). A video was presented by Mr. Goepfert of the actual cleanup operation. Mr. Michael Warminsky of Metcalf and Eddy presented a summary report of the clean up operation (Encl (2)).

(a) Mr. Robert Marcolina requested that a formal follow-up report be provided to the New Jersey Department of Environmental Protection

4. Mr. Joseph Gray of Foster Wheeler provided a brief on the Bioslurper operation at Site 16F (Encl (3)).

(a) There were problems with high iron content of the water going through the system; this made separation of diesel fuel from the water extracted difficult. This problem must be resolved in order for this system to be effective. The full-scale remedial system will be designed in the Spring of 1997; it is expected that the "iron" problem will be addressed on the pilot scale unit *before* the full scale design is completed.

(b) Mr. Gray explained that the vapor extraction portion of the Bioslurper operation did not work very well because of the degree of rainfall experienced in the Jul-Nov 96 timeframe.

(c) Mr. Jargowsky reiterated that biodegradation warrants further consideration at this Site.

(d) Mr. John Mayhew, Northern Division, Naval Facilities Engineering Command, suggested that the Air Force has a Bioslurper unit that can achieve efficient fuel/water separation with less water recovery.

5. Mr. John Kolicus of Northern Division, Naval Facilities Engineering Command, presented the status of Remedial Investigations (Encl (4)). He mentioned that the heaviest concentration of trichloroethylene (TCE) found at Site 26 (Bldg. GB-1) was 3000 parts per *billion*, which was approximately 200 feet southwest of the well where the TCE compound was originally identified on the Site (MW26-01). A Remedial Design for Site 26 will be completed by Jun 97.

Mr. Jargowsky offered that the New Jersey Department of Environmental Protection (NJDEP) has posted warning signs at the "Bel-Ray lubricants" Site, (located in Collingswood, adjacent to Naval Weapons Station Earle). This Site is potentially

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contaminated with **PCB** laden oils. Mr. Jargowsky claimed that Naval Weapons Station Earle is not a responsible party at the Bel-Ray Site.

6. A general discussion followed as Mr. Goepfert presented the 1997 Installation Restoration Program Plan for Naval Weapons Station Earle (Encl (5)). The cleanup of three paint chip disposal Sites at Bldgs D-2, D-5, and E-14 will be completed by the end of December 1996.

7. Mr. Jargowsky mentioned that Rutgers college students will be performing a "Biodiversity Study" of the Navesink watershed. He requested that Naval Weapons Station Earle consider supporting this effort. Mr. Brandstetter stated that he has access to a "bird survey of Tinton Falls" that might be helpful in this effort.

Mr. Hermanni advised Mr. Jargowsky that Naval Weapons Station Earle will provide escort for the students involved in the study.

8. Milestones

(a) A formal follow-up report on the Pistol Range cleanups will be prepared and forwarded to the U.S. EPA and NJDEP by the end of Jan 1997.

(b) Northern Division, NAVFACENGCOM will evaluate biodegradation as a remedial alteration for Site 16F.

(c) Northern Division, NAVFACENGCOM will investigate the efficiency of the Air Force's "Bioslurper" unit.

9. Mr. Goepfert thanked everyone for attending the meeting. The next RAB meeting will be held on Tuesday, 25 Feb 97 at 7:00p.m. at Naval Weapons Station Earle, Building C-54 (Conference Room). The meeting adjourned at 8:05p.m.

Submitted by:

  
GREGORY J. GOEPFERT

Navy Co-Chair  
Restoration Advisory Board

Approved/Reviewed by:



A. L. HERMANNI

By direction

Distribution:  
RAB Members/ Attendees

**PISTOL RANGE  
CLEAN UP  
SITES 24 & 25**

- ▶ SOIL PROCESSED 1500 TONS  
AND RETURNED TO SITES**
- ▶ CONCENTRATED SOIL 69 TONS  
FROM CLARIFIER  
TO ASPHALT RECYCLER**
- ▶ PROCESS WATER 6500 GALLONS  
TO TREATMENT PLANT**
- ▶ BULLETS RECOVERED 10 TONS**

**14 NOV 96**

*Encl (1)*

## Firing Range Remediation, Naval Weapons Station Earle, Colts Neck, New Jersey

As part of the Navy's ongoing program of environmental cleanup at Naval Weapons Station Earle, lead contamination at inactive pistol ranges was identified for remediation.

Representative samples were collected from each range by Metcalf & Eddy to perform treatability studies. Using five-gallon samples collected from each of the two pistol ranges, material was wet screened into nine fractions. Fractions that exceeded a total lead level of 500 mg/kg total lead then underwent gravity separation to remove particulate lead. All separation and processing steps were completed using scaled down versions of actual HYDRO-SEP<sup>SM</sup> equipment. After gravity separation, the "clean" portion of the fraction was analyzed for total lead and TCLP lead.

As a result of these separations, it was determined that up to 1,100 tons of material would require off-site disposal if only wet screening were performed. It was further determined that wet screening followed by gravity separation would render all residual soil non-toxic and suitable for reuse. Recovered lead would likely be 80 percent or more metal and be suitable for recycling.

**The HYDRO-SEP<sup>SM</sup> system reduced total lead levels from above 38,000 mg/kg to as low as 15 mg/kg, with in excess of 95 percent of the feed soil recovered as reusable soil or recyclable lead.**

Based on the treatability study and the anticipated cost savings due to the reduced volume of material that would require off-site disposal, NWS-Earle staff elected to proceed using one of Metcalf & Eddy's HYDRO-SEP<sup>SM</sup> systems. The project was undertaken as an integrated team composed of Navy earth moving equipment and operators, and Metcalf & Eddy process equipment and process technicians.

The HYDRO-SEP<sup>SM</sup> soil washing system was comprised of multi-deck wet screening system, coarse gravity separation, dewatering and associated conveyors and pumping systems. The system operated at between 50 and 75 tons/hour and was successful in reducing the total lead content of the feed soil from 19,346 to 38,529 mg/kg to between 15 and 92 mg/kg in treated material.

Of the estimated 1,500 tons processed, approximately 1,421 tons were suitable for reuse, with approximately nine tons of concentrated lead recovered for off-site recycling. Approximately 70 tons of fines were collected which exceeded the 400 mg/kg clean-up goal, with these slated for off-site disposal.

Metcalf & Eddy's HYDRO-SEP<sup>SM</sup> soil washing system performed as predicted in the treatability study. It was successful in removing in excess of 99 percent of the lead in the feed soil, with over 95 percent of the feed soil recovered as reusable site material, or recycled for beneficial reuse, and less than five percent requiring additional treatment or off-site disposal.

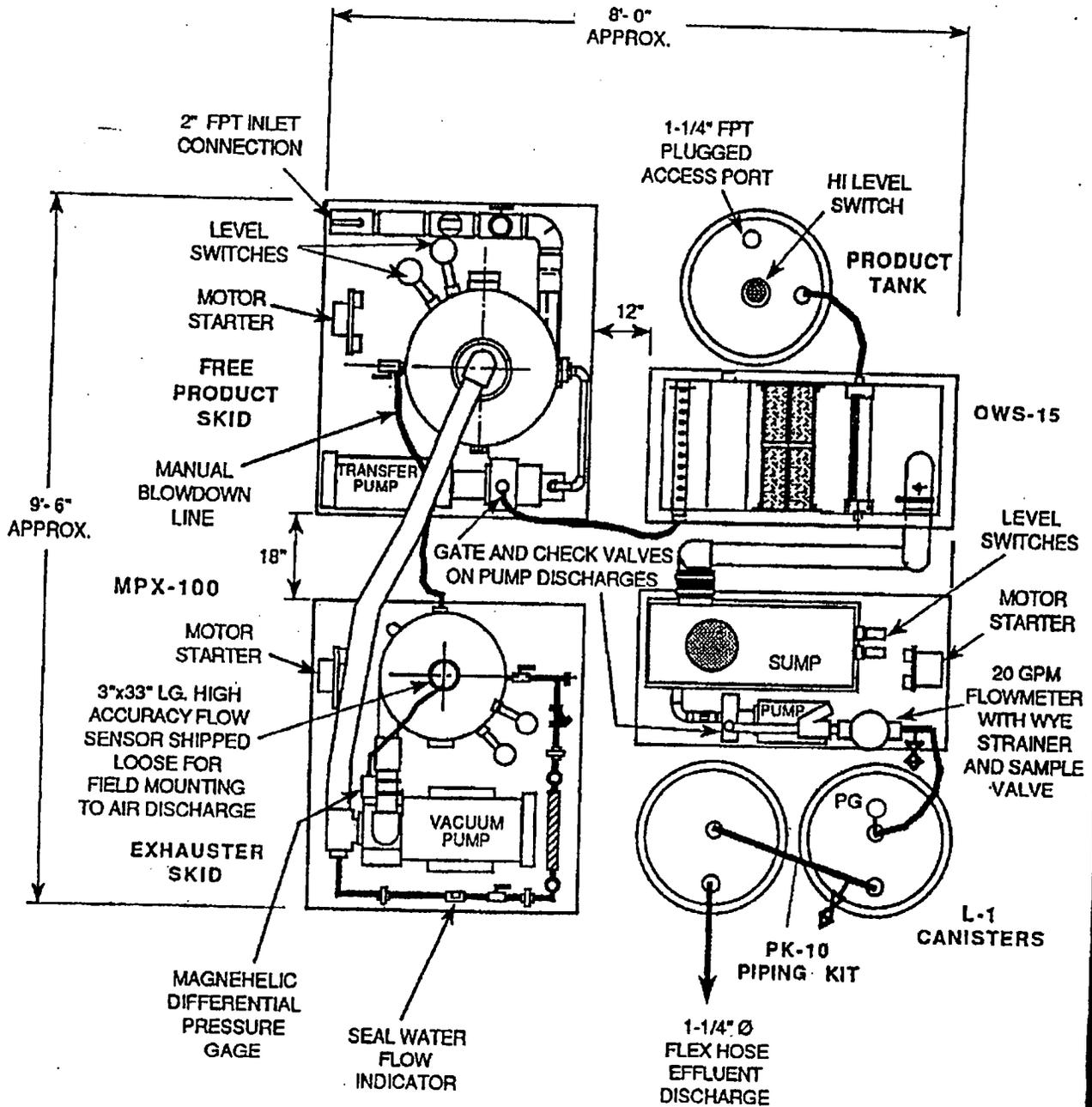
*Encl (2)*

**FOSTER WHEELER ENVIRONMENTAL CORPORATION  
BIOSLURPING PILOT STUDY  
NAVAL WEAPONS STATION-EARLE**

<b>DATES OF OPERATION:</b>	<b>July 19, 1996 to present</b>
<b>DIESEL FUEL REMOVED:</b>	<b>196 Gallons</b>
<b>GALLONS OF WATER TREATED:</b>	<b>56,000 Gallons</b>
<b>TOTAL OPERATING TIME:</b>	<b>703 Hours</b>
<b>RECOVERY RATE:</b>	<b>.25 Gallons/Hour</b>

.0035 gal fuel  
1 gal water.

Encl (3)



<p><b>CARBOTROL®</b> CORPORATION</p>		<p>51 RIVERSIDE AVENUE WESTPORT CONN. 06880 (203) 226-5642</p>	
		<p>SCALE ---</p>	<p>FOSTER WHEELER</p>
<p>DATE 5-28-96</p>	<p>Wah #18804</p>	<p>REV 6-20-96</p>	
<p><b>GROUNDWATER TREATMENT SYSTEM</b> MPX-100/OWS-15/OWS PRODUCT TANK/PSSLP-20</p>			
<p>GENERAL ARRANGEMENT</p>		<p>S</p>	<p>DWG 2937/2</p>

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Encl (3)

# REMEDIAL INVESTIGATION STATUS

- ▶ REPORT FINALIZED 7/17/96  
(INCORPORATING COMMENTS)

## FEASIBILITY STUDY (SITES 4, 5, 19 & 26)

- ▶ SCOPE OF WORK DEVELOPED 08/01/96
- ▶ ANTICIPATED NEGOTIATION 08/28/96
- ▶ DRAFT REPORT 09/30/96

## ADDITIONAL NEEDS IDENTIFIED AT 7 SITES

- ▶ CHANGE ORDER SCOPE FINALIZED 08/16/96
- ▶ COMPLETION OF FIELD WORK 12/10/96
- ▶ DRAFT RI ADDENDUM DUE 02/10/97

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Encl(4)

**INSTALLATION RESTORATION PROGRAM  
NAVAL WEAPONS STATION EARLE  
1997**

<b>SITE</b>	<b>ACTION</b>	<b>MILESTONE</b>
<b>4</b>	<b>CAPPING-REMEDIAL DESIGN</b>	<b>JUN 97</b>
	<b>CONSTRUCTION AWARD</b>	<b>AUG 97</b>
<b>5</b>	<b>REMEDIAL SCOPE OF WORK</b>	<b>SEP 97</b>
<b>6/17</b>	<b>CONSTRUCT BANK STABILIZATION</b>	<b>[PENDING FUNDING]</b>
<b>13</b>	<b>REMOVAL ACTION</b>	<b>[PENDING FUNDING]</b>
<b>16/F</b>	<b>FULL SCALE REMEDIATION AWARD</b>	<b>MAR 97</b>

**14 NOV 96**

*Encl (5)*

**INSTALLATION RESTORATION PROGRAM  
NAVAL WEAPONS STATION EARLE  
1997**

<b>SITE</b>	<b>ACTION</b>	<b>MILESTONE</b>
19	REMEDIAL SCOPE OF WORK	JAN 97
	REMEDIAL ACTION	MAR 97
22	REMEDIAL ACTION	DEC 96
23	REMEDIAL ACTION	DEC 96
26	REMEDIAL DESIGN AWARD	JAN 97
	REMEDIAL DESIGN COMPLETE	JUN 97
	REMEDIAL ACTION	[PENDING FUNDING]
27	REMEDIAL ACTION	DEC 96

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