



**DEPARTMENT OF THE NAVY**

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

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NWS EARLE  
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From: Commanding Officer, Naval Weapons Station Earle

To: Distribution

Subj: MINUTES OF NAVAL WEAPONS STATION EARLE RESTORATION ADVISORY BOARD (RAB) MEETING OF 10 DEC 98

Encl: (1) "Stream Sampling - Hockhocksens," four (4) charts prepared by G. Goepfert, Naval Weapons Station Earle, 7 December 1998.

(2) "Pesticide Shop Investigation," one (1) chart prepared by G. Goepfert, Naval Weapons Station Earle, 10 December 1998.

1. A meeting of the Naval Weapons Station (NWS) Earle RAB was held on Thursday, 10 Dec 98 at 7:00 p.m. in Building C-54 (Conference Room), NWS Earle. The following Station and community representatives attended:

<u>NAME</u>	<u>ORGANIZATION</u>
Robert M. Honey	Commanding Officer, NWS Earle
Kevin Bova	Executive Director, NWS Earle
Deborah Sciascia	Office of Counsel, NWS Earle
Gus Hermann	Safety Director, NWS Earle
Gregory Goepfert	Environmental Engineer, NWS Earle
Tom Wiseman	JOC, Public Affairs Office, NWS Earle
Janet Coakley	Howell Township, Environmental Commission
Lester Jargowsky	Monmouth County Health Dept.
John Kolicus	NORTHNAVFACENGCOM
Merwin Kinkade	Tinton Falls
Bob Marcolina	NJ Dept. of Environmental Protection
Mary Lanko	Resident, Howell Township
Vincent Moran	Leonardo
Bill Monahan	Tinton Falls Environmental Commission
Michael Heffron	Foster Wheeler Environmental Corporation
John Vasile	Association of Civilian Employees, NWS Earle
Richard Brandstetter	Friends of Pine Brook

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2. The minutes of the 10 Sep 98 meeting were reviewed and entered into the record.
  - a. A final Operations and Maintenance Plan for the closed landfills at Sites 4 and 5, will be completed by the end of January, 1999 [The draft Plan was completed on 27 October 1998].
  - b. The Record of Decision for the eight sites requiring "no further action" will be signed by the Navy by the end of December, 1998 [i.e.: Site 14 (Mercury Spill at the Defense Property Disposal Warehouse), Site 20 (Grit Blast Disposal Site Adjacent to Bldg. 544), Site 22 (Paint Sludge Disposal Site Adjacent to Bldg. D-2), Site 23 (Paint Sludge Disposal Site Adjacent to Bldg. D-5), Site 24 (Northern-most closed pistol range en route to Lake Earle), Site 25 (Southern-most closed pistol range en route to Lake Earle), Site 27 (Projectile Refurbishing Area at Bldg. E-14) and Site 29 (PCB Spill Site north of Bldg. C-16)].
3. Mr. Kolicius advised that a final Proposed Plan for Sites 3 [Landfill southwest of F-group magazines], 10 [Scrap Metal Landfill near Bldg. 589] and 13 [Defense Property Disposal Office Yard, "Shea's Yard"] would be issued pending resolution on the Environmental Protection Agency's comments on the Feasibility Study, as well as comments from the National Oceanographic and Atmospheric Administration (NOAA) to be resolved in a meeting to be scheduled in January 1999. Remedial designs are expected to be completed for Sites 10 and 13 this year; award for actual remediation work at Sites 10 and 13 is expected toward the end of fiscal year 1999 [ending 30 September 1999]. There is an issue of constructability, with regard to any capping of the Site 3 Landfill, since there is an intermittent stream running through the site.
4. Mr. Goepfert presented the results of a study performed on a stream flowing into the Hockhocks Brook (see encl. (1)). Previous rapid bioassessment results indicated a paucity of macroinvertebrates compared to other locations on Earle where bioassessments had been performed. Mr. Jargowsky pointed out that chemical analysis work does not necessarily collaborate bioassessment studies: the time of the year that studies are performed also affects results. Mr. Goepfert recommended that annual bioassessments continue to be performed at this location, prior and subsequent to any remediation work at this location, which is adjacent to Site 10. Mr. Goepfert responded to Mr. Kinkade that in the absence of sediment standards, the New Jersey soil clean up standards were used for comparison. Mr. Goepfert presented video footage of the stream area discussed.
5. Mr. Jargowsky advised that the Monmouth County Health Department has been involved in many environmental initiatives in the past, such as asbestos identification and removal, underground storage tanks, indoor pistol/firing ranges, etc. Adjacent to NWS Earle is a pistol range, located in Howell Township, which is about thirty (30) years old. Adjacent to the pistol range is also a skeet range. These locations have been used by Monmouth County Law Enforcement personnel. Mr. Jargowsky made available a layout drawing of the area.

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Lead pellets from skeet shot can be projected a maximum of 770 feet, according to manufacturer specifications; it can be concluded that skeet shot has landed over the fence on to NWS Earle property. Also complicating matters is the prevalence of wetlands in the area of the pistol range; the pistol range's berm is impacted with lead shot. As per the direction of Mr. Jargowsky, the ranges are closed. Soil sampling has been performed on a grid; the sampling results indicate lead impact. The County has consulted with a company called "ESP" in order to rebuild the pistol range in an environmentally acceptable manner. Further, the Monmouth County Freeholders have hired "PMK Associates" to perform further environmental investigation of this area. In order to proceed further with the investigations, a "Letter of Interpretation" needs to be extended by the New Jersey Department of Environmental Protection. This "Letter of Interpretation" would serve to delineate the presence and extent of wetlands in the area of the ranges, as well as permit any intrusive environmental investigations required in the wetland areas (such as establishing groundwater monitoring wells, or hand augering for soil samples). The soils in this area are similar to bog-type soils in that their pH is low, facilitating the transportation of metals via surface or groundwater.

A shallow monitoring well, previously established by the New Jersey Water Supply Authority, was found to be elevated with lead. Given that this well has not been used for some time, it was surmised that this well perhaps could not be adequately purged. Therefore, groundwater from two other downgradient wells were tested for lead content. These wells are located east of the site, off of Route 33. The lead level in one well (depth of 42 feet), having a low pH, tested below the Maximum Contaminant Level (MCL)—thereby safe for drinking. The water sampled from the other well (depth of greater than 100 feet), also was considered safe for drinking. Drinking water wells located within the confines of the Military Sealift Command Firefighting School, adjacent to the pistol and skeet ranges also tested below the MCL for lead.

Mr. Kolicius mentioned that ricochets were evident (on a trip with Mr. Goepfert) over the NWS Earle perimeter fence, adjacent to the Monmouth County pistol range.

Mr. Jargowsky asked if there was any precedent established for a lead cleanup in a wetland area, or any best management practices that can be instituted?

Mr. Goepfert advised that a rule proposed by the Environmental Protection Agency (3 June 1998 Federal Register), would, if implemented, raise the lead hazard standard to 2000 parts per million [the current New Jersey residential clean up standard is 400 PPM].

Mr. Jargowsky said that a call from the Monmouth County Sheriff's Office requesting to reuse the pistol/practice range hasn't come yet. Further Captain Honey stated that he has concerns for the safety of Earle Security patrols traversing the perimeter road adjacent to the County pistol range.

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Mr. Marcolina questioned, " is the "Letter of Interpretation" is holding up the environmental investigations? Mr. Jargowsky answered that PMK is ready to put wells in, and that the Letter of Interpretation expired in November 1998. Mr. Jargowsky has requested an extension letter from the New Jersey Department of Environmental Protection.

Captain Honey asked Mr. Jargowsky if he would be comfortable with just monitoring [the groundwater]? Mr. Jargowsky answered: yes, this would serve as an alarm bell. Captain Honey also inquired if there was any concern for large development in the vicinity of the range site, near Route 33? Mr. Jargowsky responded that the presence of the bog turtle served to halt construction of a Route 33 bypass road; also, there are no good sewers or municipal water mains in that area. Ms. Coakley says that nothing has come out of the Howell Planning Board in that regard. Mr. Kolicius asked about the impact to wetlands, and Mr. Marcolina wondered if an ecological risk assessment was planned. Captain Honey was concerned about the environmental impact on the Naval Weapons Station Earle side of the perimeter fence. Mr. Kinkade asked if any sampling was done on the Earle side. Mr. Goepfert responded: yes, surface water was sampled and found to be impacted with lead. Messrs. Goepfert and Jargowsky filed separate reports of findings with the National Response Center and the New Jersey Department of Environmental Protection. Mr. Kolicius pointed out that soil sampling on the Earle side would prove difficult given the extensive presence of leaf matter.

Ms. Coakley asked if the plan was to remove the [pistol range's impact] berm? Mr. Jargowsky answered: yes. Mr. Kolicius said that it would be prudent to remove lead shells from accessible areas of the perimeter road. Captain Honey advised that perhaps there would be some resale value of the lead recovered.

Mr. Jargowsky also discussed the re-design possibilities, such as a covered indoor range. Captain Honey suggested that a limit as to what type (size, caliber) of pistol is used be imposed.

Captain Honey noted the cooperation that has been evidenced on the County's part in addressing this issue.

Mr. Kolicius will investigate if there has been any precedents set in the Navy with adjoining activities being the source of environmental impact onto Navy property. Mr. Marcolina will follow up on the status of the County's requested extension of the "Letter of Interpretation."

6. Bioslurper status: Mr. Heffron informed us that 2500 gallons of "free product" oil has been recovered by the bioslurper units. He presented an estimate, based on well level contours, that approximately 40,000 gallons may be the extent of oil in the ground; using the analogy of pouring a quart of oil into a bucket of sand, he advised that only a portion of the free product oil (typically 5 to 20%) could be recovered. In this case the maximum yield from bioslurper operations can be expected to be no greater than 8,000 gallons. The current gameplan is to continue system operations, perhaps add additional recovery wells, and measure carbon dioxide levels in the area

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of soils being aerated. The generation of carbon dioxide is an indication that the fuel is being acted upon (i.e., digested) biologically in the soils.

Mr. Marcolina asked how the high iron in the groundwater problem was affecting bioslurper operation. Mr. Heffron responded that in the sequestering agent called FeRemede was no longer being used; the alternative of cleaning out the filter media on a regular basis is proving to be effective. Mr. Heffron also noted that the water table has dropped with little recent precipitation; therefore, November 1998 was the least productive with respect to removal of free (oil) product from the adjacent soils. Captain Honey asked what is the projected length of operations? Mr. Heffron responded that after one full year of operations, we would examine the progress to determine the need for any further actions. Mr. Marcolina stated that it appeared that the bioslurper was being operated with good efficiency—more oil was being recovered than out of a typical pump and treat operation. Mr. Kolicius stated that it may be advantageous to alternate wells. Mr. Heffron stated that those adjustments are made, as necessary. The point is to minimize withdrawal of water and enhance fuel oil recovery.

7. Mr. Goepfert presented a briefing (see encl. (2)) and video on the status of the Pesticide Shop investigation. Shallow groundwater revealed the presence of Endosulfan I, an insecticide. A more extensive groundwater investigation will be completed within the next month. Permits have been applied for from the New Jersey Department of Environmental Protection in order to establish deeper monitoring wells (“hydropunches”). The groundwater investigations will focus in the areas below soils, which have shown the greatest concentrations of pesticides. Levels of chlordane have also been evidenced in the septic tank sludge at this location. Pending completion of these investigations, a comprehensive cleanup plan will be presented to the U. S. Environmental Protection Agency and the New Jersey Department of Environmental Protection.

Mr. Jargowsky mentioned when the County was being sprayed for gypsy moths with Sevin G [a pesticide], that there were no complaints regarding the reduction of the tick population; the lack of spraying has caused increases in the tick population.

8. An archery range has been reestablished at Installation Restoration Site # 24. Mr. Goepfert presented a video of the completed archery range.

9. Mr. Goepfert mentioned that Ms. Boak from Colts Neck could no longer commit to attendance at RAB meetings; Mr. Larry Harris will be the representative from Colts Neck.

10. The next RAB meeting is scheduled for March 11, 1999. Mr. Bova suggested that the meeting be held in the Bldg. C-2 Conference Room [since the Naval Weapons Station Earle Environmental Division was moving to this building]. The meeting will be held at Bldg. C-2 Conference room; Bldg. C-2 is at the first left turn you can make (along the row of flagpoles) after entering through the Colts Neck area of the Station’s Main Gate (at Route 34).

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11. Milestones:

- (a) Tetrattech NUS / Northern Division (Mr. Kolicius) to incorporate all comments and prepare the final Record of Decision for Captain Honey's signature [for the eight "no further action" sites] by the end of December 1998.
- (b) Foster Wheeler to finalize the Operations and Maintenance Plans for closed/capped landfill sites 4 and 5 by the end of January 1999.
- (c) Mr. Kolicius to schedule a meeting with NOAA in January 1999 to resolve outstanding issues.
- (d) Mr. Marcolina to inquire at the New Jersey Department of Environmental Protection regarding Monmouth County's "Letter of Interpretation" extension.
- (e) Mr. Kolicius to investigate any precedents set with adjoining non-Navy activities causing environmental impact on Navy property, as well as precedents for cleanups in wetland areas.

12. Meeting adjourned at 8:50 P.M.

Submitted by:  12/22/98  
GREGORY J. GOEPFERT  
Navy Co-Chair  
Restoration Advisory Board

Approved/Reviewed by:   
AUGUST L. HERMANNI  
By direction

Distribution:  
RAB Members/Attendees

# Stream Sampling-Hockhocksen

- Upstream, Mid-stream and Downstream Sediment Samples
- Slow Flow and Fast Flow Surface Water Samples
- Priority Pollutants and Miscellaneous Parameters (Biological Oxygen Demand, Chemical Oxygen Demand, Dissolved Oxygen, pH etc.)

# Stream Sampling-Hockhocksen

- RESULTS:
- Surface Water
  - Iron at 318 ug/L; 420 ug/L vs. 848 ug/L (Background)
  - COD at 9 mg/L (slow flow) vs. 11 - 21 ug/L (Background)
  - DO at 8.88 mg/L, 8.91 mg/L vs. 5-10 mg/L (Background)
  - pH at 7.75 and 7.82 units (6.5-8.5 Drinking Water Standard)
  - BOD5 at “Non-detect”

# Stream Sampling-Hockhocksen

- RESULTS:
- Sediment:
  - Petroleum Hydrocarbons 316.85 mg/kg vs. NJDEP clean up standard of <1000 mg/kg
  - Di-n-Butyl Phthalate 230-420 ug/kg [NJDEP: 5,700,000 ug/kg]
  - 4-4'-DDD .003-.005 mg/kg [NJDEP: 3 mg/kg]
  - Methylene Chloride 780 ug/kg; 800 ug/kg [NJDEP 49,000 ug/kg]

# Stream Sampling-Hockhocksen

- CONCLUSION:
  - All parameters identified were found to be within the range of normal background levels or below established contaminant limit.
- RECOMMENDATION:
  - Perform Rapid Bioassessment - Annual Basis
  - Monitor Changes after Site 10 Remedial Action

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# PESTICIDE SHOP INVESTIGATION

- GROUNDWATER

- Endosulfan I: 0.38 ug/L, 0.41 ug/L, 0.61 ug/L

- NJDEP Standard: 0.4 ug/L

- Shallow hydropunches @ 20 feet: dry-- a deeper well investigation will be undertaken.