6/15/95-01967

AGENDA

RESTORATION ADVISORY BOARD (RAB)

FOR THE

INSTALLATION RESTORATION PROGRAM (IRP)

NAVAL WEAPONS STATION YORKTOWN

YORKTOWN, VIRGINIA

YORK COUNTY SOCIAL SERVICES/RECREATION CENTER

301 GOODWIN NECK ROAD

15 JUNE 1995

6:30 PM

WELCOME/INTRODUCTION.....J. T. (Tom) BLACK
Public Affairs Officer

Captain S. W. Delaplane
Commanding Officer

Jay Dewing
Community Co-Chair

CERCLA OVERVIEW.....Brenda Norton
Remedial Project Manager

VIDEO - "Removal Actions"

DOCUMENT REVIEW
"Background Report".....Rich Hoff (Baker)
"Site 16 and SSA 16".....Don Shields (Baker)
"Sites 4 and 21".....Tammi Halapin (Baker)

FUNDING FY-96.....Brenda Norton
Recision List Remedial Project Manager
Risk Management

OTHER ISSUES.....Jeffrey Harlow
Review of Mission Statement IR Program Manager
Consolidate of Repository Locations

COMMENTS/ANNOUNCEMENT OF FUTURE MEETINGS

CLOSING REMARKS/ADJOURN

ENCLOSURE (1)

RESTORATION ADVISORY BOARD (RAB)
MISSION STATEMENT AND PROCEDURES

Mission Statement:

It is the mission of the Naval Weapons Station (WPNSTA) Yorktown's Restoration Advisory Board (RAB) to:

- ★ Act as a forum for the discussion and exchange of information regarding cleanup among the WPNSTA Yorktown, Federal, State and local regulatory agencies; and the local community;

- ★ Provide an opportunity for interested community members to participate in the cleanup process and provide input to decision makers;

- ★ Review and evaluate documents provided by the WPNSTA Yorktown and its contractors regarding cleanups;

- ★ Provide advice to Commanding Officer, WPNSTA Yorktown on:

  - — Monitoring progress on these activities;

  - — Collecting information regarding restoration priorities at the WPNSTA Yorktown;

  - — Addressing land use, level of restoration, acceptable risk, and waste management and technology development issues related to environmental restoration at WPNSTA Yorktown; and

  - — Developing environmental restoration strategies for the WPNSTA Yorktown.

- ★ Conduct regular meetings, open to the public, at convenient times and locations.

Membership:

- ★ Members will include but not be limited to Commanding Officer, WPNSTA Yorktown, Naval Facilities Engineering Command, Atlantic Division (LANTDIV), Environmental Protection Agency (EPA), Virginia Department of Environmental Quality (VDEQ), National Oceanographic and Atmospheric Administration (NOAA), Department of Interior (DOI), U. S. Fish and Wildlife Service, Virginia Institute of Marine Science (VIMS), and community representatives from York and James City counties and the cities of Newport News and Williamsburg.

ENCLOSURE (2)

Policies:

- ★ Each community member will serve on the RAB for a two year term.
- ★ Community Membership responsibilities include:
  - — Communicating with local community members and interested groups concerned with issues specific to WPNSTA Yorktown.
  - — Commenting on documents available for review.
  - — Attending all RAB meetings or sending an alternate.
- ★ If unable to continue to participate fully, members must submit their resignation in writing to either of the RAB co-chairs (if the member is representing a group or organization, that group or organization may nominate a new member).
- ★ RAB members may be subject to termination from the board if they miss two consecutive meetings without sending a substitute.
- ★ A mailing list of persons interested in becoming RAB members will be kept by WPNSTA Yorktown.
- ★ When a replacement member is needed, an application will be sent to all interested parties on the mailing list. The RAB members will select a new member from the applications that are received.
- ★ The Navy co-chair will provide one-on-one and group training for the new member(s).

Operating Procedures for RAB meetings:

- ★ The Commanding Officer of WPNSTA Yorktown will select a Navy co-chair and the community members will select the Community co-chair. As of March 16, 1995, the Navy co-chair is Captain S. W. Delaplane (887-4141) and the Community co-chair is Jay Dewing (804) 898-3154.
- ★ Meetings will be held quarterly or more often if the co-chairs deem it necessary.
- ★ The agenda will be prepared by the Navy and the Community Co-chair.
- ★ Notice of all meetings and a copy of the agenda will be mailed to RAB members two weeks prior to the meeting by WPNSTA Yorktown.
- ★ Documents that need to be reviewed by RAB members will be mailed 10 days prior to the RAB meeting. At the meeting, members will discuss any comments or questions pertaining to each document. If during the review process any RAB member has a question concerning the document for review, they are encouraged to call the Navy or Community co-chair for an explanation.

- Dates, times and locations of meetings will be published in the ***Daily Press*** the Sunday prior to the meeting.

- Meetings will be conducted by both the Navy co-chair and the Community co-chair who will coordinate developing and distributing meeting agenda two-weeks in advance of scheduled meetings. "Read ahead" materials will be provided in advance to facilitate understanding of issues and maximizing meeting effectiveness. All RAB business will be discussed before the floor is open to questions from the public.

- Presentations will be followed by a 5-10 minute question/comment period for the RAB members.

- After the RAB's regular meeting is complete, questions and comments will be taken from the general public.

- Minutes of the RAB meeting will be sent to all parties on the mailing list as well as placed in the information repositories.

OTHER ISSUES

RESTORATION ADVISORY BOARD (RAB)

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MISSION STATEMENT AND PROCEDURES

Any additional changes required?
Vote to adopt Mission Statement and Procedures.

CONSOLIDATE REPOSITORY LOCATIONS

WPNSTA Yorktown Library Closing 8/95 - Move to Environmental
Eliminate Repository at Gloucester Library.
Eliminate Repository at Williamsburg Library.

FUTURE MEETINGS

Announce by sending an agenda sheet only (No cover letter)
Next meeting Thursday 9/14/95? Are Wednesdays better?

COMMENTS

CLOSING REMARKS/ADJOURN

Restoration Advisory Board Meeting

June 15, 1995

Baker

Baker Environmental, Inc.

Key Issues in CERCLA Remedy Selection

- SARA and §121 of CERCLA: Cleanup Standards, NCP Requirements at 40 CFR Part 300
- §121 Requirements for Remedial Actions:
  - Protective of Human Health and Environment
  - Attains Federal Applicable or Relevant and Appropriate Requirements (ARARs)
  - Attains State ARARs that are More Stringent than Federal ARARs (if Promulgated, of General Applicability; not Adopted to Preclude Onsite Remedial Actions, Land Disposal)

Key Issues in CERCLA Remedy Selection *(continued)*

- §121 Requirements for Remedial Actions: *(continued)*
  - Utilizes Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to Maximum Extent Practicable
  - Preference for Remedial Actions which Significantly Reduce Toxicity, Mobility and Volume
  - In Accordance with NCP, to Extent Practicable
  - Waivers of ARARs: Six Statutory Bases

NCP Requirements for Remedy Selection

- Preliminary Assessment / Site Inspection (§300.420 of NCP)

- Remedial Investigation (§300.430 (d) of NCP)
  - Site Characterization
  - Potential Contaminant - specific, location specific ARARs
  - Baseline Risk Assessment

NCP Requirements for Remedy Selection *(continued)*

- Feasibility Study
  - Preliminary and Final Remedial Action Goals
  - Nine Feasibility Study evaluation criteria
  - Identification of ARARs (§300.400(g))

Nine Feasibility Study Criteria

- Overall protection of human health and the environment
- Compliance with ARARs
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment

Nine Feasibility Study Criteria

(continued)

- Short-term effectiveness
- Implementability
- Cost
- State acceptance
- Community acceptance

Identification of ARARs (§300.400 (g) of the NCP)

- Substantive vs. procedural requirements
- Type of ARARs:
  - Contaminant-Specific
    - e.g., MCLs, NESHAPS
  - Location-Specific
    - e.g., wetlands, historic preservation, flood plain requirements
  - Action-Specific
    - e.g., RCRA closure
- Points of Compliance

Identification of ARARs *(continued)*

- Applicable <u>or</u>
  - jurisdictional prerequisites of the requirement satisfied:
    - Who is subject to it?
    - What types of substances fall under its authority?
    - What is the time period for which it is in effect?
    - What types of activities does it require, limit or prohibit?
- Relevant
  - Does requirement address problems or situations sufficiently similar to the circumstances of the proposed response action?

Identification of ARARs *(continued)*

- <u>and</u> Appropriate
  - Respective purposes
  - Media regulated or affected
  - Substances regulated
  - Activities regulated
  - Variances, waivers or exemptions and their availability for circumstances at the CERCLA site
  - Respective type of place regulated
  - Type and size of structure or facility regulated
  - Consideration of use or potential use of affected resources

- Background Investigation
- Site 16 and SSA 16
- Site 4 and Site 21

Background Investigation

- In 1992 a Round I Remedial Investigation was conducted at 16 sites within WPNSTA Yorktown
- The Round I Remedial Investigation concluded that additional investigations were required at these sites and that this should include collection of background samples

What Are Background Samples?

- These are samples of Environmental Media (such as soil, groundwater, surface water, and sediment) that are collected from areas unaffected by sites or site screening areas.

Why is Sampling Background Important?

- It helps regulators determine whether a chemical is present on site naturally, if the chemical is site related, or if it is due to some man-made source (other than the site itself).
- Lead is a good example of this. Lead is present (at very low concentrations) naturally in most soils. We may also detect lead in soil as a man-made contaminant such as lead based paint or leaded gasoline.
- The concentration of lead in the background soil samples gives regulators an idea of the concentration of lead found naturally in soil. The results of soil samples collected at a site can then be compared to background results.

Background Investigation at WPNSTA Yorktown

- Background samples were collected throughout the York River Drainage Basin at WPNSTA Yorktown during Summer 1994. These included:
  - 40 surface soil samples
  - 13 surface soil samples along railroad tracks
  - 14 subsurface samples
  - 16 groundwater samples
  - 33 surface water samples
  - 46 sediment samples

Background Investigation *(continued)*

- All samples were submitted to a laboratory for analysis
- USEPA and the VDEQ provided comments on the design of the background investigation
- The Background Investigation also included collection of Benthic Macroinvertebrate and fish samples

Background Investigation *(continued)*

- Benthics and fish were collected from 25 stations off-base, including:
  - Freshwater ponds (Woodstock Pond and Powell Lake)
  - Freshwater streams (Colonial National Park)
  - Tidal Freshwater streams (Taskinas and Timberneck Creeks)
- Species were identified in the field. Population density and diversity were calculated for each sampling station.

Results of the Background Investigation

- Unlike most environmental investigations, there are no conclusions for the background investigation
- The Background Investigation was designed to provide regulators with a database of values (chemical concentrations, fish population diversity, etc.) which can be used to evaluate data generated during environmental investigations at WPNSTA Yorktown
- Data from the Background Investigation are used for Regulatory Risk Management Decision Making

Site 16 and Site Screening Area (SSA) 16

- Site 16 - West Road Landfill
  - Approximately 5 acres
  - Operated from the early 1950s to the early 1960s as a landfill
  - Materials disposed: batteries, banding materials, pressure transmitting fluid, 55-gallon drums, scrap metal, construction debris, and general refuse

Site 16 and Site Screening Area (SSA) 16

- SSA 16 - Building 402 Metal Disposal Area
  - Open area, about 1 acre
  - Majority of SSA 16 overlies the northern portion of Site 16
  - Dumpsters, scrap metal, empty drums

Round I Remedial Investigation (RI)

- Conducted in 1992-1993 for 16 sites at WPNSTA Yorktown, including Site 16
- Investigation included soil, groundwater, surface water, and sediment sampling
- Results of the Round I RI indicated that additional investigations were required to complete the Human Health and Ecological Risk Assessment

Removal Action

- Conducted in 1994
- Included the removal of surficial debris
- Included the collection of confirmation surface soil samples

Round II RI at Site 16 / SSA 16

- Field work initiated Summer 1994
- Investigation included collection of:
  - 32 soil samples
  - 13 groundwater samples
  - 3 surface water samples
  - 8 sediment samples
  - Fish and benthic macroinvertebrates were collected from 3 stations

Round II RI at Site 16 / SSA 16

- Confirmation samples collected during the Removal Action were incorporated into the Round II RI
- Results were compared with background data
- Sample analytical results were used to complete Human Health and Ecological Risk Assessments

Human Health Risk Assessment

- Conducted for soil, groundwater, surface water and sediment
- Potential receptors include:
  - on-site adult workers
  - future resident adults
  - future resident children
  - future construction workers

Human Health Risk Assessment *(continued)*

- Quantitative
  - Incremental Cancer Risk (ICR)

    acceptable: $1x10^{-4}$ to $1x10^{-6}$
  - Hazard Index (HI)

    acceptable: less than 1.0
- Exceedances
  - Groundwater
    - ICR and HI for future resident adult and child
    - Driven by arsenic, manganese and antimony

Human Health Risk Assessment *(continued)*

- However . . .
  - Arsenic
    - did not exceed enforceable standards
  - Manganese
    - did not exceed enforceable standards
  - Antimony
    - exceeded enforceable standards
    - within background concentrations
    - not site related

Ecological Risk Assessment

- Conducted for surface soil, surface water and sediment
- Aquatic and Terrestrial
- Aquatic
  - Qualitative
  - Surface water and sediment screening values
  - Species population and diversity
  - No unacceptable risk to aquatic environment

Ecological Risk Assessment *(continued)*

- Terrestrial
  - Semiqualitative
  - Uptake modeling - Quotient Index (QI)
  - QI ranges for selected animals

1-10	small potential effect
10-100	significant potential effect
>100	expected effects

  - Of the animals studies only the shrew exceeded acceptable QI range (QI = 2210)
  - But when shrew model is applied to background soil, it is still unacceptable (QI = 521)

What Next?

- Usually

  RI ⟶ FS ⟶ PRAP ⟶ ROD

- However, at Site 16/SSA 16 there are no areas of concern that require evaluation of remedial alternatives
- Skipped over Feasibility Study (FS) and proceeded directly to the Proposed Remedial Action Plan (PRAP)

Proposed Plan

- No Further Remedial Action
  - 1994 Remedial Action Successful
- This is currently being reviewed by RAB/VDEQ/USEPA. After this review, PRAP will be made available to the public for review and comment.
- Site 16/SSA 16 now designated as Operable Unit II.

Site 4 - Description

- Site 4 - Burning Pad Residue Landfill
  - Approximately 5 acre area
  - Used as a disposal area from 1940 to 1975
  - Materials disposed: carbon-zinc batteries, burning pad residues, tree stumps, fly ash, mine casing, electrical equipment, and transformers.

Site 21 - Description

- Site 21 - Battery and Drum Disposal Area
  - Small wooded area covering less than 1 acre
  - Located immediately adjacent to Site 4
  - Identified as a site in November 1990 - history not well known
  - Wastes identified: drums, batteries, empty solvent containers, scrap metal

Site 4 and 21 - Investigations

- Round One Remedial Investigation (RI)
  - Conducted in 1992-1993 for 16 sites at WPNSTA Yorktown
  - Investigation included groundwater, soil, surface water and sediment sampling

Site 4 and 21 - Investigations

- Removal Action
  - Conducted in 1994 at both sites
  - Included the removal of surficial debris and some identified waste to depth
  - Included the collection of a set of confirmation soil samples

Site 4 and 21 - Investigations

- Round Two RI with Human Health and Ecological Risk Assessments
  - Combined the analytical results from the Round One RI with the results from the Removal Action (confirmation soil samples)
  - No additional field investigations - objective to maximize the results of the Removal Action and to identify data gaps

Site 4 and 21 - Round Two RI Conclusions

- The Removal Action remediated the soil contamination at Site 21
- Data gaps were identified with soil (Site 4 only), groundwater, surface water, and sediments
- Additional information / data is needed to complete the RI/FS process for the sites

Site 4 and 21 - Proposed Plan of Future Actions

- Site 21
  - No Further Remedial Action with respect to soil at the site - based on the success of the 1994 Removal Action
  - Additional investigation for groundwater, surface water, sediments to determine nature and extent of contamination
  - Site 21 soils now designated as Operable Unit II.

Site 4 and 21 - Proposed Plan of Future Actions *(continued)*

- Site 4
  - Additional investigation for soil, groundwater, surface water, sediments to determine nature and extent of contamination