INSTALLATION RESTORATION PROGRAM

INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVENUE
INDIAN HEAD, MARYLAND
20640-5035

RESTORATION ADVISORY BOARD (RAB) MEETING

Date of Meeting: October 19, 1995

Restoration Advisory Board (RAB) Member Participants:

Capt. W. J. Newton (N)
Ms. Susan Adams (N)*
Mr. Elmer Biles (C)
Mr. Gary Davis (L)
Mr. Charles Ellison (C)
Ms. Patricia Haddon (L)
Ms. Marsha Atlee-Harley (C)
Mr. Vincent Hungerford (C)*
Ms. Donna Lynch (S)
Mr. Dennis Orenshaw (F)
Mr. Shawn Phillips (N)
Ms. Kristen (Sprague) Burke (C)

* Co-Chair

RAB Members Not in Attendance:

Mr. Stephen Elder (L)
Mr. Bob Foley (F)
Dr. Philip Giguere (C)

Additional Attendees:

Ms. Christina Adams (N)
Mr. Bob Burke (C)
Ms. Sherry Deskins (N)
Mr. William Hudson (F)
Mr. Shawn Jorgensen (N)
Mr. Tony Klimek (K)
Mr. Kim Lemaster (S)
LCDR K. Slates (N)

C = Community
F = Federal Official
K = Contractor
L = Local Official
N = Navy Official
S = State Official

Major Issues Discussed/Accomplished:

1. Meeting Introduction

Ms. Susan Adams of the Indian Head Division, Naval Surface Warfare Center (IHDIVNAVSURFWARCEN) began the meeting by presenting the meeting agenda, which is included as Attachment A. Ms. Adams also provided a few updates for the Restoration Advisory Board (RAB) members. They are as follows:

1) Mr. Kim Lemaster, the Remedial Project Manager (RPM) from the Maryland Department of the Environment (MDE), has been promoted. Ms. Donna Lynch will be taking his place as the MDE RPM for IHDIVNAVSURFWARCEN.

2) Ms. Adams introduced LCDR Kevin Slates, the new Public Works Officer for IHDIVNAVSURFWARCEN.

3) Mr. Bill Hudson, the Community Involvement Facilitator from EPA Region III, was in attendance.

4) Ms. Kristen Sprague, a RAB community member who recently got married, brought her new husband, Mr. Bob Burke, to the meeting.

Ms. Adams stated that on September 29, 1995, IHDIVNAVSURFWARCEN was finalized on the National Priorities List (NPL), which has both negatives and positives associated with it. For example, a site on the NPL is thought to be very contaminated, a negative perception. However, the ability to obtain Defense Environmental Restoration Account (DERA) funding for cleanup increases for sites on the NPL.

2. IR Site 57 Update

Mr. Shawn Jorgensen discussed the work that was recently performed at IR Site 57. This work included obtaining soil-gas samples, as well as soil and groundwater samples. A copy of Mr. Jorgensen's presentation is provided in Attachment B.

3. Site Management Plan

Mr. Shawn Phillips of the Engineering Field Activity Chesapeake provided information on IHDIVNAVSURFWARCEN's Site Management Plan (SMP). He stated that, although the SMP includes information on each site, the most important part of the SMP is the schedule, which depicts every step in the investigation and cleanup of a site. Some steps, however, may be eliminated as more information concerning the site is obtained. A copy of Mr. Phillips presentation is included as Attachment C.

4. Relative Risk Assessment

After a short break to allow the Relative Risk model to load on the computer, Mr. Phillips discussed the model and showed the type of information that had been entered into the model to prioritize IR sites. Mr. Phillips stated that two sites currently have a priority 1 designation. They are IR Sites 42, Olson Road Landfill, and 56, Lead Contamination at National Pollutant Discharge Elimination System (NPDES) Industrial Wastewater Outfall (IW) 87. IR site 42 will proceed into the Remedial Investigation/Feasibility Study (RI/FS) phase of the IR program while a Removal Action will be performed at IR Site 56 in fiscal year 1996. A copy of Mr. Phillips presentation is included in Attachment D.

5. Comments, Questions, and Answers

Numerous comments were made and questions asked during the meeting. These comments, questions, and answers are provided in Attachment E.

6. Conclusion

Ms. Susan Adams concluded the meeting by thanking all in attendance. In addition, she stated that the tentative agenda for the next RAB meeting includes an update on the NPL, and an update on IR Sites 56 and 57. As a final note, Ms. Adams asked the RAB members if Thursdays were still good days for RAB meetings. All agreed. Therefore, the tentative dates for RAB meetings in calendar year 1996 are on the following Thursdays:

1. January 18, 1996
2. April 18, 1996
3. July 18, 1996
4. October 17, 1996

7. Future Schedule

Ms. Adams ended the meeting by reminding everyone that the next RAB meeting is scheduled for Thursday, January 18, 1996, in the General Smallwood Middle School library at 7:00 p.m.

INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
INSTALLATION RESTORATION PROGRAM
RESTORATION ADVISORY BOARD (RAB) MEETING
AGENDA

October 19, 1995

7:00 - 7:10	ARRIVAL/WELCOME Ms. Susan P. Adams Indian Head Division, Naval Surface Warfare Center Director, Environmental Division
7:10 - 7:30	IR SITE 57 UPDATE Mr. Shawn Jorgensen Indian Head Division, Naval Surface Warfare Center IR Project Engineer
7:30 - 7:50	SITE MANAGEMENT PLAN Mr. Shawn Phillips Engineering Field Activity Chesapeake IR Remedial Project Manager
7:50 - 8:00	BREAK
8:00 - 8:30	RELATIVE RISK ASSESSMENT Mr. Shawn Phillips
8:30 - 9:00	QUESTIONS/ANSWERS Ms. Susan P. Adams
9:00	DEPARTURE

NOTE: The next RAB Meeting is scheduled for Thursday, January 18, 1995.

Attachment A

Installation Restoration (IR) Site 57 Update

Shawn A. Jorgensen

Indian Head Division,
Naval Surface Warfare Center

IR Site 57

- Background
  - Site Discovery
  - Probable Source
  - Recommended Action
- Work Performed
  - Samples Taken
  - Results of Samples
- Future Work

Background

- Site Discovery
  - National Pollutant Discharge Elimination System (NPDES)
  - 62 Parts Per Billion (ppb) Trichloroethylene (TCE) in Wastewater/Storm Water Discharge
- Probable Source
  - Building 292
  - 1,900-Gallon Solvent Tank
    - TCE Used for Degreasing
    - Tank Used from Mid-1960's to 1989

Background (continued)

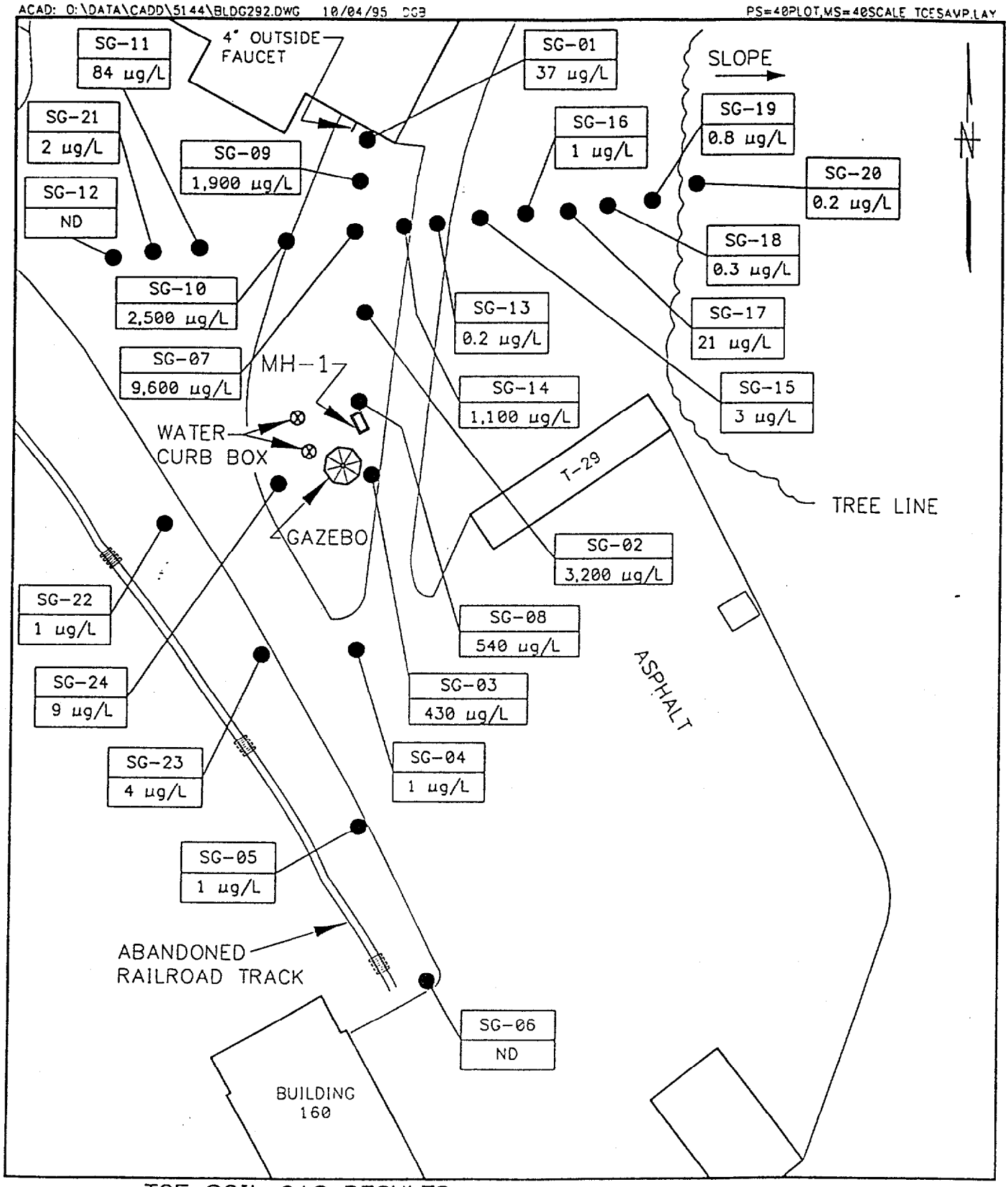
- Recommended Action
  - Determine if TCE Contamination Exists in Ground
    - Soil-gas Survey
    - Soil and Groundwater Sampling
  - If TCE Contamination Present in Ground, Confirm that Building 292 was the Source
  - Determince Future Action Based on Sample Results

Trichloroethylene (TCE)

- Solvent Used for Degreasing
- Moderate Vapor Pressure Allows Detection in Gas
- Dense Non-Aqueous Phase Liquid (DNAPL)
  - More Dense Than Water
  - Will Sink Down To Confining (Clay) Layer

Work Performed

- Soil-gas Survey
  - 24 Soil-gas Samples Obtained from 24 Locations
  - TCE Ranged from Non-Detect (ND) to 9,600 milligrams per liter (mg/L) of air
  - Highest Concentration Located 25 Feet Downgradient from Building 292



TCE SOIL GAS RESULTS
BUILDING 292, FORMER DRUM LOADING AREA
NAVAL SURFACE WARFARE CENTER,
INDIAN HEAD, MARYLAND

FIGURE 1-2

Halliburton NUS CORPORATION

Work Performed (continued)

- Eight Soil Samples Taken at Four Locations
  - 3 Feet Below Grade
  - Soil/Water Interface (13 - 15 Feet Depth)
- Two Groundwater Samples Obtained at Soil/Water Interface
- Two Storm Water Samples Taken

Future Work

- Obtain Additional Samples to Fully Characterize the Site
- Probably Perform a Removal Action
- Request Funding from the Defense Environmental Restoration Account (DERA)
- Prepare an Engineering Evaluation and Cost Analysis (EECA) to Determine the Best Method of Cleanup for the Site

Indian Head Division
Naval Surface Warfare Center

Site Management Plan
Dated October 1995

Site Management Plan Purpose

- Presents current and immediate future activities planned at Indian Head in the Installation Restoration Program (IRP)
- Provides projections for long term IRP progress
- Documents decisions and evaluations made during the planning and scoping process

Site Management Plan Format

- Introduction
- Site Descriptions
- Site Map
- Schedules

Site Management Plan Introduction

- Highlights the purpose of the SMP
- Gives brief description and mission of Indian Head Division
- Discusses Indian Head Division's IR Program history
- Figures included detail the IR Program in general and Indian Head's specific program

Site Management Plan Descriptions

- Includes all IR sites at Indian Head Division
- Information included is as up-to-date as possible
- Individual descriptions will be updated as needed in the future, i.e., as Removals or Studies are performed

Site Management Plan Maps and Schedules

- Map includes every IR Site at Indian Head
- Schedules are the **most important part** of the Management Plan
- Seven Schedules included
- Schedules are very detailed
- These Schedules will need periodic updates

Site Management Plan Schedules, Cont'd

- These schedules are the basis of the Navy's budgetary requests
- Priorities are established on the Relative Risk posed by each Site
- First Priority for 1996 are Remedial Investigation (RI) Work Plans for 16 Sites
- Site 57 EE/CA and Removal Design is also a 1996 and 1997 Priority

Site Management Plan Schedules, Cont'd

- Every step in the Site Screening and RI is there but many aren't shown
- The Schedules are very conservative
- The EPA, State, and Navy will work to streamline or eliminate certain steps
- These Schedules are somewhat generic and some steps won't be necessary for some sites, even without regulatory negotiation

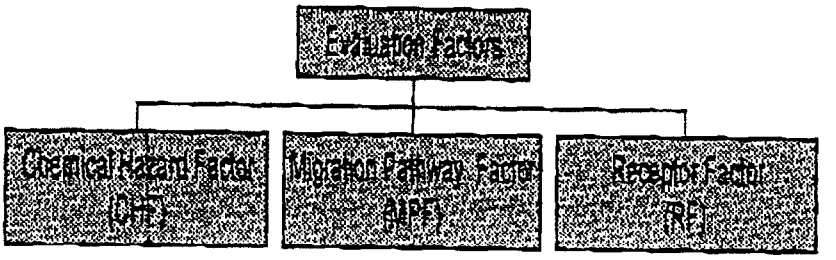
Relative Risk Model

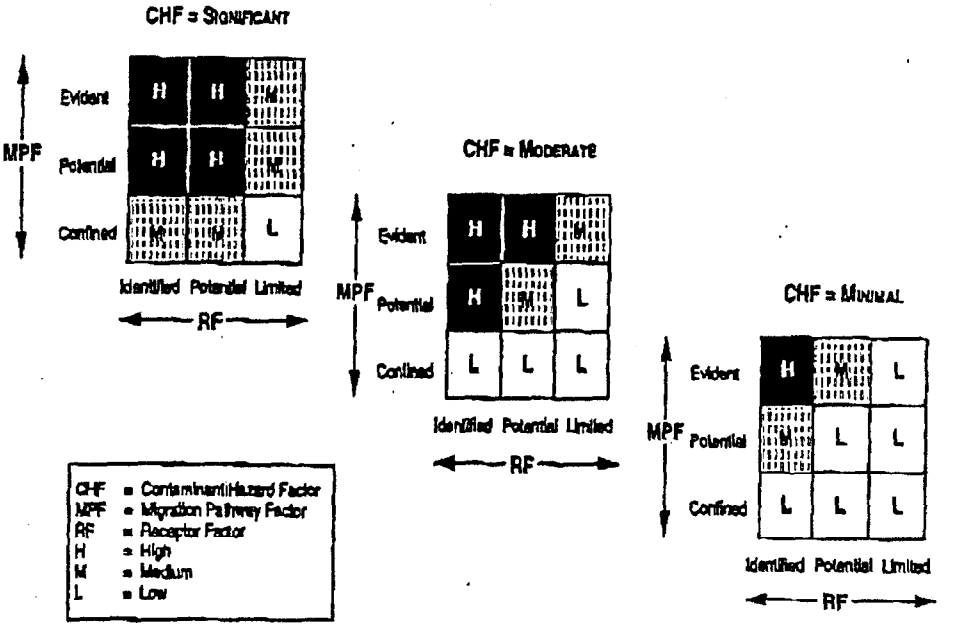
RAB Interactive Presentation
October 19, 1995

Purpose of Relative Risk

- To standardize the comparison method when establishing priorities of all DoD contaminated sites
- To set priorities on a risk basis instead of a regulation driven basis
- To eliminate costs growths and better utilize DoD's limited resources
- In essence, to assure the worst are handled first

Relative Risk Inputs





Chemical Risk Factor

- Uses actual or estimated data
- Forms objective portion of risk ranking
- Rated as Significant, Moderate, or Minimal
- Uses uniform "Concentration Standards" for comparison
  - Preliminary Remediation Goals (PRGs)
  - Ambient Water Quality
  - Sediment

Concentration Standards

- Preliminary Remediation Goals (PRGs)
  - Water standards based on Risk Based Concentration calculation (human health)
  - Soil standards based on a residential exposure scenario (human health)
  - Both non-carcinogenic and carcinogenic risks evaluated

Concentration Standards, cont'd

- Ambient Water Quality Criteria
  - Developed under the Clean Water Act
  - Targeted for fresh and marine water quality (ecological health)

Concentration Standards, cont'd

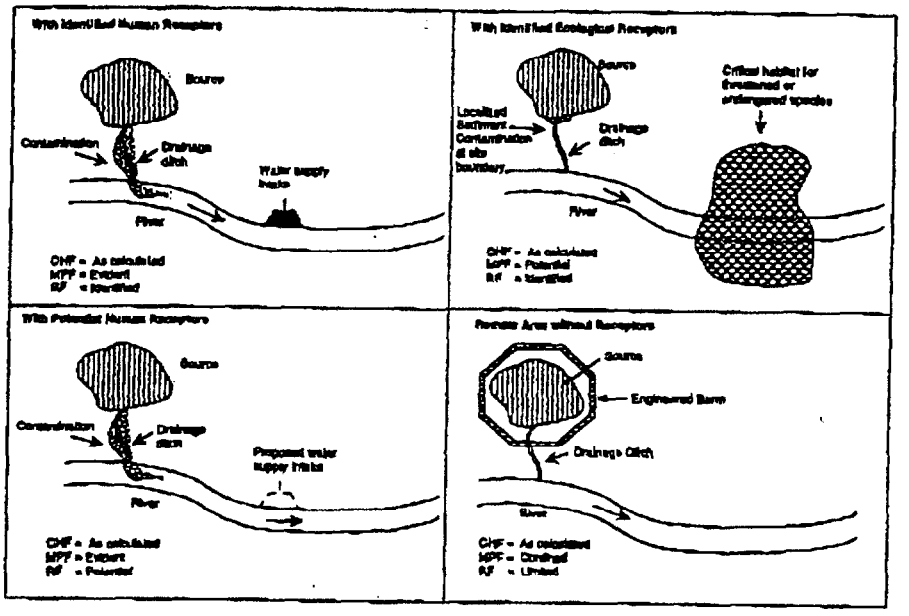
- Sediment Criteria
  - Developed by National Oceanic and Atmospheric Administration (NOAA)
  - These are only SCREENING values, not intended to be used as sediment quality criteria
  - Uses the values for Environmental Response-Low, or chronic, from NOAA studies (ecological health)

Migration Pathway Factor

- Rated as evident, potential, and confined
- Very subjective and based on professional opinion
- All sites at Indian Head were rated by the Navy with Maryland Department of the Environment (MDE) input
- There have been no differences of opinion to date

Receptor Factor

- Rated as identified, potential, and limited
- Very subjective and based on professional opinion
- Not only human, but also ecological receptors to be considered
- All sites at Indian Head were rated by the Navy with MDE input, with no disagreements



Outcome of Risk Rating

- New version of Relative Risk gives a rating of 1 to 27, similar to older version, with 1 being the highest risk
- These rating numbers will be used when DoD selects which actions will be done
- Site with high risk ranking will receive funding priority
- Sites will conversely receive little or no funding when they pose low relative risk

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RESTORATION ADVISORY BOARD (RAB) MEETING COMMENTS, QUESTIONS, AND ANSWERS

October 19, 1995

Introduction

Question: What is the difference between sites that are located at the main side and those at Stump Neck Annex?

Answer: The sites at Stump Neck Annex at handled under the Resource Conservation Recovery Act (RCRA) Corrective Actions program. The sites at Stump Neck Annex will not be discussed in the RAB.

Comment: Stump Neck sites will be discussed only if they are affected by a site at the main side, such as was the case with the placement of silver contaminated soil from IR Site 5 in the Borrow Pit at Rum Point.

Installation Restoration (IR) Site 57 Update

Question: Why is Building 292 called a "Cast Plant Building"?

Answer: Operations that take place in the building are conducted by employees in the Cast Plant (Code 210).

Question: What do the levels of Trichloroethylene (TCE) obtained in the soil-gas survey indicate and what do they correlate to?

Answer: Soil-gas surveys are conducted as a first level screening to determine the approximate location of contamination. The results are in micrograms per liter (µg/L) of air in the spaces between soil particles. The levels of TCE in soil or groundwater cannot be determined based solely on soil-gas data.

Question: What do you look for in soil-gas analysis?

Answer: Volatile and semi-volatile organic compounds, such as solvents, can be detected using soil-gas sampling. In our case, we looked for TCE and Dichloroethylene (a chemical formed when TCE breaks down in the soil), since we knew TCE was present.

Question: Where were the groundwater samples taken?

Answer: Groundwater samples were taken at locations SG-05 and SG-07. Sample SG-05 had one of the lowest soil-gas concentrations of TCE (1 µg/L) and SG-07 had the highest soil-gas concentration of TCE (9,600 µg/L).

Question: Why weren't groundwater samples taken between the two locations?

Answer: Not a lot of money was available for this sampling effort, so a phased approach was used to attempt to correlate the soil-gas data with actual soil sample data and to determine where to take additional samples.

Comment: It seems that obtaining a sample between SG-05 and SG-07 would have helped to determine how well the soil-gas data correlates with soil sampling data.

Question: How much did this sampling cost?

Answer: Approximately $70,000.

Question: Does TCE have a tendency to drop more straight down (vertically) or spread out (horizontally)?

Answer: TCE is a Dense Non-Aqueous Phase Liquid (DNAPL) which will generally sink down vertically to a confining layer, such as clay.

Comment: DNAPL's are notorious to investigate because they do sink. In addition, they can be hard to clean up since they flow down into fractures in rock structures and fractures in clay.

Site Management Plan

Question: Will the EPA impose their views on the schedule in the plan?

Answer: All parties involved will work together on the schedule. Sometimes there will be differences of opinion which will have to be worked out.

Comment: The Department of Defense Relative Risk Computer Model, which will be discussed, is one potential area for differences of opinion.

Relative Risk Model

Question: Where is EPA Region IX (the EPA region that generated the Preliminary Remediation Goals (PRGs) used in the model)?

Answer: California.

Comment: The PRGs will be changed to Risk Based Concentrations (RBCs), which were generated by EPA Region III.

Question: How far downstream do you look for a receptor?

Answer: Using the model, it is up to the person or people ranking the site. At Indian Head, the Mattawoman Creek, a known recreational fishery, and the Potomac River are obvious receptors which can be related to most sites.

Question: How are the Contaminant Hazard Factors (CHFs) rated into significant, moderate, and minimal.

Answer: This is based on the RBC for a given chemical. If the concentration of a contaminant is less than twice the RBC, then the CHF is minimal. For concentrations between 2 and 100 times the RBC, the CHF is moderate. And for concentrations of a contaminant greater than or equal to 100 times the RBC, the CHF is significant.

Question: Is this the Navy's ranking system?

Answer: Actually, this model was created to standardize the method in which all Department of Defense (DOD) sites are ranked. Therefore, it is being used throughout the DOD.

Question: What is the highest ranking site at Indian Head?

Answer: There are two: IR Site 42, Olson Road Landfill, and IR Site 56, Lead Contamination at Industrial Wastewater Outfall 87.

Question: Does changing information in the program change a sites ranking? For example, if you say that an agreement, such as a Federal Facility Agreement between the Navy and the EPA, has been signed, will that change the priority number of the site?

Answer: Mr. Shawn Phillips stated that he has tried this and has not seen a difference. However, an updated version of the program is currently in the making and should be released for use soon.

Question: Does changing the funding source (i.e., Activity versus Defense Environmental Restoration Account funded) change the site priority?

Answer: Again, Mr. Phillips responded that he has not noticed a difference in the current version of the program.

Question: Has the current sampling information from IR Site 57 been input into the program?

Answer: Yes.

Question: Will new data input into the program change a sites priority?

Answer: Yes.

Question: Will all number 1 priorities be scrutinized.

Answer: Justification, which is input into the program, is necessary to prove that a site is a number 1 priority.

Question: How many number 1 priority sites are there?

Answer: At Indian Head, there are 2, as mentioned previously. DoD-wide, however, this will not be known until all sites have been ranked.

Question: Is the Engineering Field Activity Chesapeake (EFACHES) using this model to prioritize sites?

Answer: Yes.

Question: Do you expect to see priorities go down?

Answer: Yes. As a matter of fact, because of the Removal Action performed at IR Site 8, the ranking went down for that site.

Question: If the priority of a site goes down, will the funding also go down?

Answer: Yes.

Question: When will EFACHES begin using this model for budget purposes?

Answer: The model has been used to prepare the fiscal year 1997 budget.

Question: If the Army has more priority 1 sites, does that mean the Army will get more money?

Answer: Yes. The objective of using the Relative Risk model DoD-wide is to ensure that priority 1 sites get funded first.

INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
INSTALLATION RESTORATION PROGRAM
RESTORATION ADVISORY BOARD (RAB) MEETING
AGENDA
(tentative)

January 18, 1996

7:00 - 7:10	ARRIVAL/WELCOME Ms. Susan P. Adams Indian Head Division, Naval Surface Warfare Center Director, Environmental Division
7:10 - 7:40	NPL UPDATE Mr. Shawn Jorgensen Indian Head Division, Naval Surface Warfare Center IR Project Manager
7:40 - 8:10	IR SITE 56 UPDATE Mr. Shawn Jorgensen
8:10 - 8:40	IR SITE 57 UPDATE Mr. Shawn Jorgensen
8:40 - 9:00	COMMENTS, QUESTIONS, AND ANSWERS
9:00	ADJOURN

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