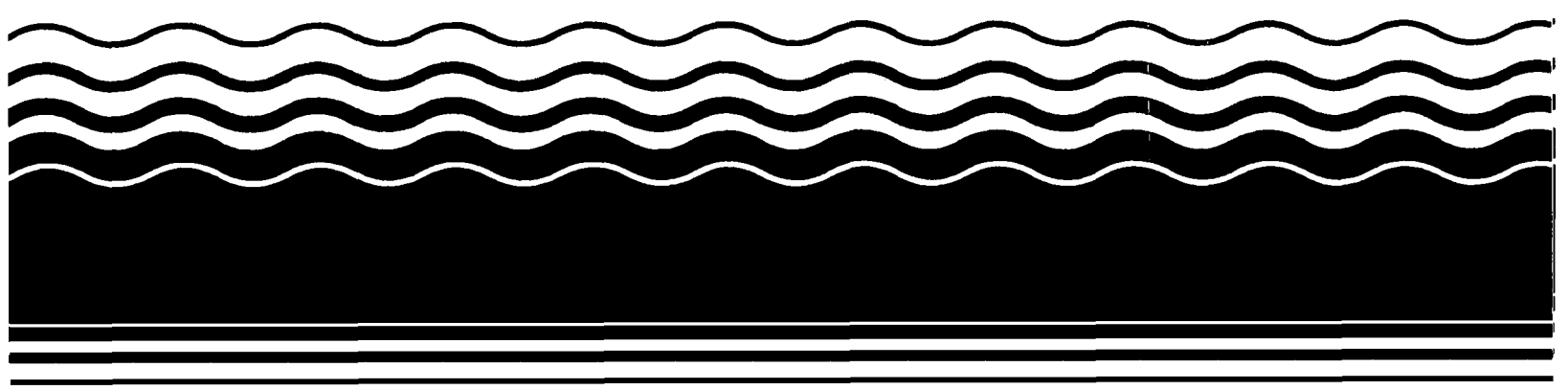


U. S. Environmental Protection Agency
Region III Hazardous Waste
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Philadelphia, PA 19107

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April 1997

EPA Superfund Record of Decision:

**American Cyanamid Company,
(Hill Property Soils), Bound Brook, NJ
Bound Brook, NJ
7/12/1996**



**SUPERFUND RECORD OF DECISION
FOR HILL PROPERTY SOILS**

**AMERICAN CYANAMID SITE
AMERICAN HOME PRODUCTS CORPORATION
BRIDGEWATER TOWNSHIP, SOMERSET COUNTY
NEW JERSEY**



**Prepared by: N.J. Department of Environmental Protection
Site Remediation Program
Bureau of Federal Case Management
July 1996**

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DECLARATION STATEMENT

RECORD OF DECISION HILL PROPERTY SOILS AT AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

SITE NAME AND LOCATION

Hill Property Soils at the American Cyanamid Site
Bridgewater Township, Somerset County, New Jersey

STATEMENT OF BASIS AND PURPOSE

This decision document, prepared by the New Jersey Department of Environmental Protection (NJDEP) as lead agency, presents the selected remedy for the Hill Property Soils at the American Cyanamid Site. The selected remedy was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision document explains the factual and legal basis for selecting the remedy for this site and is based on the administrative record. The attached index identifies the items that comprise the administrative record.

The U.S. Environmental Protection Agency (USEPA), support agency for this site, concurs with the selected remedy and has provided a concurrence letter to that effect, which is attached to the responsiveness summary section of this document.

DESCRIPTION OF THE SELECTED REMEDY

This ROD addresses only Hill Property Soils. The selected remedy is "No Further Action with Ground Water Monitoring".

The major components of the selected remedy include:

- Continue recovery of the residual ground water contamination from the Hill Property to the Main Plant area of the site
- Continue ground water monitoring at the Hill Property Area to verify that the residual ground water contamination is being recovered at the Main Plant from the Hill Property
- Water Use Restrictions that have been established under the NJDEP Classification Exception Area remain in effect until all of the residual ground water contamination has been recovered at the Main Plant from the Hill Property

DECLARATION OF STATUTORY DETERMINATIONS

The No Further Action with Ground Water Monitoring remedy has been selected based on the results of the Remedial Investigation and the Baseline Endangerment Assessment for Hill Property Soils, which have shown the remedy to be protective of human health and the environment.

Because this remedy will result in residual ground water contamination remaining on the site until it is completely recovered at the main plant area, a review will be conducted pursuant to CERCLA after the complete removal of the residual ground water contamination to ensure that the remedy continues to provide adequate protection of human health and the environment. In accordance with CERCLA, NCP and State requirements, NJDEP has determined that no further action is necessary to ensure protection of human health and the environment for the Hill Property Soils. NJDEP has determined that its response at this portion of the site is complete. Therefore, the Hill Property site may qualify for partial deletion from the National Priorities List of Superfund.



Signature

Richard J. Gimello, Assistant Commissioner
Site Remediation Program



Date

DECISION SUMMARY

RECORD OF DECISION HILL PROPERTY SOILS AT THE AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

1. SITE NAME, LOCATION AND DESCRIPTION

American Cyanamid Company's (Cyanamid's) Bound Brook facility is located in north-central New Jersey in the southeastern section of Bridgewater Township, Somerset County. The facility encompasses approximately 575 acres and is bounded by Route 28 to the north, the Raritan River to the south, Interstate 287 and the Somerset Tire Service property to the east, and Foothill Road and the Raritan River to the west. A site map identifying important features of the site with a highlight of the Hill Property area is attached (Figure 1).

The Hill Property area is approximately 140 acres in size (Block 7101--Lots 1 and 2, 7207--All Lots, Block 7208--All Lots, Block 7209-- All Lots except 14, 16, 18, 20, 21, 23 and 24, Block 7210--All Lots except 5, 7, 9, 11, 13 and 15 and Block 7211--All Lots), bounded to the south by the New Jersey Transit rail road tracks, to the east by Interstate Highway 287, to the north by Route 28 (Union Avenue), and to the west by Foothill Road. The Hill Property is bisected by Main Street and encompasses a small traffic circle where Van Horne Avenue and Main Street intersect.

2. SITE HISTORY AND ENFORCEMENT ACTIVITIES

American Home Products Corporation purchased American Cyanamid Company in December 1994 and has assumed the full responsibility for the ongoing environmental remediation at the site.

American Cyanamid Company and the NJDEP executed an Administrative Consent Order (ACO) in May 1988 which was amended in May 1994 requiring American Cyanamid to address the site-wide contamination and implement a remediation program as necessary.

Historical records, aerial photographs and site reconnaissance of the Hill Property show no indications of past manufacturing or waste disposal. Until 1900s, the Hill Property area was used for farming activities. In the late 1940s, Cyanamid began constructing the research laboratory and administration buildings which occupied the southeast corner of this segment. The research laboratory and administrative buildings had been decommissioned and demolished.

One surface Impoundment(# 23) is located within the Hill Property area. This impoundment is approximately three acres in size and was used from the late 1940s through the early 1980s as a dewatering basin for river sediments dredged from Impoundments 21 and 22 located at the main plant.

Impoundments 21 and 22 were used as settling basins for water pumped from the Raritan River for use in the main plant. The settled river sediments were dredged periodically and placed in Impoundment 23. Based on the investigation performed by Cyanamid in 1987, the NJDEP approved a no further action closure for this impoundment.

Three areas, Laboratories Waste Drum Storage, Boiler House and Van Horne House Fuel Oil Tank were identified as areas of concern during the Remedial Investigation (RI).

3. HIGHLIGHTS OF COMMUNITY PARTICIPATION

The following documents were made available to the public for review:

- Remedial Investigation Report;
- Baseline Endangerment (Risk) Assessment Report; and
- Superfund Proposed Plan.

These documents are part of the administrative record and are located in an information repository maintained at the NJDEP Docket Room in Trenton, New Jersey, at the Somerset County Public Library and at the Bridgewater Township Municipal Complex. The notice of availability for these documents was published in the Courier News on January 10, 1996. A public comment period on the documents was held from January 10, 1996 to February 24, 1996. A briefing with the Bridgewater Township officials and a public meeting were held on February 22, 1996. At this meeting, representatives from NJDEP answered questions about the results of investigations and risk assessment and the preferred no further action with monitoring remedy under consideration for Hill Property Soils. Limited comments were received during the public meeting and comment period concerning the preferred remedy for the Hill Property Soils. A complete background on community involvement throughout the remedial process is included in the Responsiveness Summary.

4. SUMMARY OF SITE CHARACTERISTICS

The RI for the Hill Property area was completed in March 1991. The significant findings of the RI are described below:

Geology/Hydrogeology

The elevation of the Hill Property ranges from about 70 feet above sea level in the northeast, to about 35 feet above sea level in the southwest. The Hill Property area is underlain by a series of overburden surficial deposits. The overburden consists of a silty clay soil, derived from the underlying bedrock.

Below the surficial deposits is a zone of weathered shale ranging in thickness from 5 to 10 feet. The weathered shale consists of shale and siltstone fragments in a clay matrix, and acts as a low permeability boundary between the over lying surficial deposits and the under lying bedrock. Directly below the weathered shale lies the Passaic Formation, which consists of a series of reddish-brown shale, siltstone and fine sandstone.

Test pits and borings on the Hill Property have infrequently encountered overburden ground water indicating that there is no significant overburden aquifer component in the Hill Property. When ground water in the overburden does occur, it is usually found perched about one foot above the bedrock.

Ground Water

The ground water flow in the Passaic Formation aquifer has been reversed due to the ground water pumping from production wells at the main plant. The current ground water flow is to the south, toward the main plant area.

Ground water production wells have been relocated to the Main Plant Area from the Hill Property. Residual bedrock ground water contamination at the Hill Property, a result of the past ground water contamination recovery system, is now being recovered at the Main Plant Area. The existing production wells at the Hill Property have been converted into monitor wells. Quarterly bedrock ground water monitoring is being performed by using these monitor wells to ensure that all of the residual ground water contamination, as described above, is being recovered at the Main Plant Area of the site. A ground water Classification Exception Area (CEA) and Ground Water Use Restrictions have been established to provide public notification restricting the ground water use at the Hill Property area until the residual ground water contamination is removed below the applicable standards. The CEA and ground water use restrictions will remain in effect until all of the ground water contamination at the Hill Property has been recovered at the Main Plant. The January 1996 Proposed Plan discussed establishing a Declaration of Environmental Restriction (DER) at the Hill Property. However, since there is no soil contamination above the NJDEP Cleanup Criteria (both residential and non-residential) or background, there is no need to establish the DER at the Hill Property. Results of the effectiveness of ground water recovery (from the Hill Property to the Main Plant) system, together with the results of the ground water monitoring program, will be addressed with a subsequent ROD in the future.

Soils

As part of the RI, three areas of concern at the Hill Property were investigated in detail. The RI sampling locations are shown on Figure 2. Areas of concern investigated during the RI and the results of investigations are described below. The soil analytical results were compared to the NJDEP Direct Contact Soil Cleanup Criteria (DCSCC) and Impact to Ground Water Soil Cleanup Criteria (IGWSCC) using compliance methods published by NJDEP. This compliance process involves comparing average concentrations to the DCSCC and IGWSCC as well as comparing maximum detected concentrations to a multiplication factor of the Soil Cleanup Criteria (SCC). It is important to note that NJDEP has not developed IGWSCC for Metals. These criteria are to be developed on a case-by-case basis. Metals data for the Hill Property Soils are provided for the portion of the soil column where potential impact to ground water would be more likely to occur than direct contact; therefore, background concentrations developed during the RI are used for the evaluation of Metals data. Comparison of detected contaminants to NJDEP SCC is included in Table 1.

- **Background Sampling Program:**

Three test pits (HT-1 through HT-3) were completed in undisturbed areas of the Hill Property to obtain samples for analysis for background values for chromium and vanadium. These locations are at a great enough distance from the Boiler House and in undisturbed areas to be considered indicative of background. One additional test pit (HT-4) was completed to examine the soil horizons surrounding the Boiler House. Soil samples were obtained from these test pits between 7 to 11 feet below ground surface (bgs).

Chromium was detected in the range of 27.5 to 379 mg/kg while vanadium was detected in the range of 56.5 to 327 mg/kg.

- **Laboratory Waste Storage Area:**

This area is located in the northern portion of the Hill Property. Due to the potential for spills or leaks which may have originated from the drums stored in this area, surface soil samples were collected from the four sides of the concrete storage pad area. Each sample was analyzed for the Target Compound List (TCL) Volatile Organic Compounds (VOCs), TCL Semi-Volatile Organic Compounds (SVOCs), TCL Polychlorinated Biphenyls (PCBs) and TCL Metals. Analysis for dioxins was not conducted because the sampling and analysis program completed in 1983 by NJDEP had confirmed that no dioxin contamination was present at the Cyanamid facility. Pesticides/herbicides were not analyzed because historical records indicated that they were never manufactured or disposed at the Cyanamid facility.

The average TCL VOCs and SVOCs concentrations in surface soil samples collected to a depth of 2 feet bgs are less than the residential and non-residential NJDEP DCSCC and the IGWSCC. No single sample exceeds the SCC by the appropriate multiplication factor.

PCBs were not detected above the method detection limits (MDLs), which are less than the residential and non-residential DCSCC and IGWSCC.

The average concentrations of TAL Metals are less than the residential and non-residential DCSCC. No single sample exceeds the SCC by the appropriate multiplication factor.

- **Boiler House Area:**

This area is located in the southern portion of the Hill Property. This area is no longer in use as a boiler house and was converted into a maintenance shop. Historical records indicate that a 20,000-gallon underground fuel oil tank existed north of the Boiler House, but was removed probably at the time the Boiler House was converted into a maintenance shop. Two aboveground fuel oil tanks once existed east of the Boiler House. To detect possible soil contamination resulting from the fuel oil tanks or any other activities at the former Boiler House, four soil samples were collected between 6 to 11 feet bgs. One test trench was

completed north of the Boiler House in order to substantiate records that indicated the underground fuel oil tank had been removed.

The average TCL VOCs and SVOCs concentrations in soil samples collected between 6 to 11 feet bgs are less than the IGWSCC. No single sample exceeds the SCC by the appropriate multiplication factor.

The average PCB concentrations (Aroclor 1254) in soil samples are less than the IGWSCC. No single sample exceeds the SCC by the appropriate multiplication factor.

The maximum and average concentrations for TAL Metals are within the background range identified in the Hill Property RI.

- **Van Horne House Fuel Tank Area:**

The Van Horne House, a building of historical significance, was used by Cyanamid for administration purposes only. An underground fuel oil tank (already removed) was located directly to the south of this house. This tank represented a potential source for soil or ground water contamination. Four soil samples were collected between 4 to 8 feet bgs. As the former tank was used solely for the storage of fuel oil, and no manufacturing or disposal activity occurred in this area, the samples were analyzed for total petroleum hydrocarbons (TPH) only.

TPH were not detected above the method detection limits, which are less than the NJDEP Criteria of 10,000 mg/kg.

5. Summary of Site Risk

Based upon the results of the RI, the Baseline EA was completed to estimate the risks associated with current site conditions. The Baseline EA estimates the human health and ecological risks presented by the contamination at the site if no remedial actions were taken. The results of the Baseline EA were reported in March 1992.

Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario: *Hazard Identification*--identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence and concentration. *Exposure Assessment*--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures and the pathways (e.g., ingesting contaminated well-water) by which humans are potentially exposed. *Toxicity Assessment*--determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). *Risk Characterization*--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk) assessment of site-related risks.

As a first step in the Baseline EA, contaminants of concern were selected that would be representative of site risks. All contaminants detected in surface soils, for which there are toxicity criteria, were included as contaminants of concern. Contaminants of concern consist of 5 VOCs, 16 SVOCs and 1 metal. 10 out of the 22 contaminants of concern are considered carcinogenic. Contaminants of concern with their toxicity criteria are listed in Table 2.

Using the Baseline EA evaluation for exposure pathways for human receptors, a number of significant exposure pathways (both current and future use) were identified and evaluated quantitatively to determine the risk levels presented by existing site conditions.

Summary of Human Health Risks

Through an assessment of exposure pathways for the contaminants of concern, specific health risk levels were calculated for each significant exposure pathway to enable a quantitative evaluation of health risks for human receptors.

Current federal guidelines for acceptable exposures are individual lifetime excess carcinogenic risk in the approximate range of 1×10^{-4} to 1×10^{-6} . This can be interpreted to mean that an individual may have a one in 10,000 to a one in 1,000,000 increased chance of developing cancer as a result of a site-related exposure to a carcinogen under specific exposure conditions. Current federal guidelines for acceptable exposures for non-carcinogenic risk are maximum Hazard Index of 1.0. The Hazard Index is defined as the sum of the Hazard Quotients for all contaminants of concern within a particular exposure pathway that have a similar mechanism of action or end point. Hazard Quotient greater than 1.0 indicates that the exposure level exceeds the protective level for that particular chemical.

New Jersey Public Law P.L. 1993, c. 139 (NJSA 58:10B) has set acceptable cancer risk for human carcinogens at 1×10^{-6} (one-in-one-million) and acceptable non-carcinogenic risk at the Hazard Index for any given effect to a value not to exceed 1.0. These established acceptable risk values are for any particular contaminant and not for the cumulative effects of more than one contaminant at a site.

A quantitative analysis of the risks associated with the Hill Property soils was conducted in the Baseline EA to evaluate risks associated with exposure through incidental ingestion, dermal contact, and inhalation as a result of intermittent maintenance employees performing work activities.

Exposure levels were conservatively estimated based on current NJDEP and USEPA guidance methodologies. The estimated exposure levels were then compared to critical toxicity values to quantify the risks. Summary of calculated risks is included in Table 3.

The highest potential carcinogenic risk calculated was 1.0×10^{-6} , and the highest potential Hazard Index calculated was 0.0002, which were associated with the future business use scenario of an individual ingesting site soils.

The March 1992 Baseline Site-Wide Endangerment Assessment Report (Hill Property Quantitative Risk Assessment, Appendix VII) established that there is no current or future unacceptable risk (above the NJDEP 10^{-6} carcinogenic risk level and Hazard Index of 1 for non-carcinogenic risk as well as USEPA's carcinogenic risk range of 10^{-4} to 10^{-6} and Hazard Index of 1) to human health associated with the Hill Property.

Qualitative Ecological Risk Assessment

In the Ecological Assessment, a reasonable maximum environmental exposure is evaluated utilizing a four step process for assessing site-related ecological risks. These steps are: *Problem Formulation*--development of the objectives and scope of the ecological assessment; description of the site and ecosystems that may be impacted; identification of contaminants of concern. *Exposure Assessment*--identification of potential ecological receptors and exposure pathways; quantitative evaluation of exposure pathways; fate and transport mechanisms for contaminants. *Ecological Effects Assessment*--literature reviews, field studies, and toxicity tests, linking contaminant concentrations to effects on ecological receptors. *Risk Characterization*--measurement or estimation of both current and future adverse effects.

The results of the site-wide habitat survey and direct field observations were compared to the Natural Heritage Data Base (NJDEP, 1991). This assessment concluded that the on-site habitat does not support threatened or endangered species.

It is unlikely that there has been or will be any adverse ecological impacts associated with the Hill Property because; 1) the Hill Property RI showed no indication of past manufacturing or disposal activities; 2) there are no direct contact exposures; and 3) contamination was detected, at background levels, and is limited to small areas. Therefore, a more formal ecological assessment was not performed.

6. SELECTED REMEDY FOR THE HILL PROPERTY SOILS

The RI data indicate that the contaminants detected in the soils are below the NJDEP DCSCC (both residential and non-residential), IGWSCC and/or background. The Baseline Endangerment Assessment concluded that there is no current or future unacceptable risk to human health and the environment associated with the Hill Property. Therefore, in accordance with CERCLA, NCP and State Requirements, NJDEP and USEPA have determined that no further action is necessary to ensure protection of human health and the environment.

Based upon the results of the RI and the Baseline EA, NJDEP and USEPA have selected no further action with ground water monitoring as the remedy for the Hill Property soils. Because this remedy will not result in hazardous substances remaining on the site, a five-year review is not required. NJDEP has determined that its response at this portion of the site is complete. Therefore, the Hill Property site may qualify for partial deletion from the National Priorities List of Superfund.

The residual bedrock ground water contamination at the Hill Property, a result of the past ground water contamination recovery system, is now being recovered at the Main Plant Area. Ground Water Classification Exception Area (CEA) and Ground Water Use Restrictions have been established to provide public notification restricting the ground water use at the Hill Property area until the residual ground water contamination is removed below the applicable standards. The CEA and ground water use restrictions will remain in effect until all of the ground water contamination at the Hill Property has been recovered at the Main Plant. The January 1996 Proposed Plan discussed establishing a Declaration of Environmental Restriction (DER) at the Hill Property. However, since there is no soil contamination above the NJDEP Cleanup Criteria (both residential and non-residential) or background, there is no need to establish the DER at the Hill Property. Results of the effectiveness of ground water recovery (from the Hill Property to the Main Plant) system, together with the results of the ground water monitoring program, will be addressed with a subsequent ROD in the future.

7. DOCUMENTATION OF SIGNIFICANT CHANGES

There is no change from the preferred remedy described in the Proposed Plan and the selected remedy described in this ROD.

CLASSIFICATION EXCEPTION AREA (CEA)

RECORD OF DECISION HILL PROPERTY SOILS AT AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

Pursuant to the requirements of the NJDEP Ground Water Quality Standards (GWQS), NJAC 7:9-6 et seq., a CEA and Water Use Restriction Area (WURA) must be established as part of an approved remedy whenever contaminants standards applicable to a ground water classification area are not or will not be met for the term of the remediation. The ground water at the American Cyanamid site (including the Hill Property) is classified as Class IIA. The primary designated use for Class IIA ground water is potable water and conversion (through conventional water supply treatment, mixing or other similar technique) to potable water. Class IIA secondary designated uses include agricultural water and industrial water.

Because of the past ground water contamination recovery system, bedrock ground water in the Passaic Formation at the Hill Property became contaminated. The ground water contamination recovery system has been moved to the Main Plant area and the residual ground water contamination at the Hill Property is now being recovered at the Main Plant Area. Because of the past ground water contamination recovery system which resulted in residual ground water contamination at the Hill Property, the contaminant concentrations are not meeting the Class IIA GWQS. As such, a CEA and WURA are established until it is verified that all of the residual ground water contamination at the Hill Property is recovered at the Main Plant area.

- **CEA Boundaries:**

As shown on Figure 1, the entire Hill Property and the Main Plant areas have been designated as a CEA. The affected area of the Passaic Formation has also been included in this CEA designation.

- **CEA Contaminants:**

Because of the recovery at the Main Plant, now, only tetrachloroethene and 1,2,4-trichlorobenzene exceed the GWQS (based on first quarter 1996 monitoring data). However, at the time the ground water recovery system was moved from the Hill Property to the Main Plant, several TCL VOCs, SVOCs, Metals as well as chloride and cyanide were detected above the GWQS in the ground water at the Hill Property. For the purpose of the CEA monitoring, all TCL VOCs, SVOCs, Metals as well as chloride and cyanide are included as contaminants of concern.

- **CEA Longevity:**

The longevity of the CEA (i.e., time it will take for contaminants to meet GWQS) has been calculated based upon the analytical solution as described within the NJDEP's "Final Guidance for Classification Exception Areas, dated

April 17, 1995". The following briefly describes the variables used to calculate the duration and length of the CEA:

- The duration of transport is based upon the degradative half-life, concentration and GWQS for the given contaminant. The high-end of the half-life range for each contaminant was used in this calculation to conservatively bias the time to degrade to GWQS.
- The length of transport is based upon the transport velocity of the ground water, the retardation factor of the contaminant and the duration of transport.

The duration of the CEA is based upon the tetrachloroethene since it takes the longest to degrade to GWQS (7 years). The length of transport does not factor into the duration of the CEA since this area is within the capture zone of the Main Plant ground water recovery system. Manganese was detected in Well PW-16 above the GWQS during the Fourth Quarter 1995 sampling event. However it was not detected above the GWQS during the First Quarter 1996.

PARAMETER	TETRACHLOROETHENE
Time to Meet GWQS (t) (Days)	2,413
Length of Transport (d) (ft)	471

The calculation details for the duration and length of the CEA are provided below.

A. DURATION OF TRANSPORT:

I. Calculation of Half-Life ($t_{1/2}$):

Half-life ranges for the contaminants of concern were obtained from P.H. Howerd et. al., " Handbook of Environmental Degradation Rates," Lewis Publishers, 1991, for unacclimated aerobic biodegradation in ground water.

Tetrachloroethene:	Half-life Range--360 to 56 days Assume $t_{1/2}$ = 360 days
1,2,4-Trichlorobenzene:	Half-life Range--360 to 56 days Assume $t_{1/2}$ = 360 days
Manganese:	No half-life Assume transport as ground water velocity

II. Time to Meet GWQS:

Tetrachloroethene:

Where: C = GWQS = 1 ug/l
 C_o = Most Recent Concentration
= 10.2 ug/l

$$t_{1/2} = 720 \text{ days}$$

$$t = \ln(C/C_o) / (0.693/t_{1/2})$$
$$= \ln(1/10.2) / (0.693/720)$$
$$= 2,413 \text{ days}$$

1,2,4-Trichlorobenzene:

Where: C = GWQS = 1 ug/l
 C_o = Most Recent Concentration
= 83.9 ug/l

$$t_{1/2} = 360 \text{ days}$$

$$t = \ln(83.9/1) / (0.693/360)$$
$$= 1,160 \text{ days}$$

B. LENGTH OF TRANSPORT:

I. Seepage Velocity (V_s):

Where: K = Hydraulic Conductivity (ft/day)
= Estimated to be 30 ft/day, 1992 Ground Water Modeling Report, Camp, Dresser & McKee (CDM).
 dh/dl = Hydraulic Gradient (ft/ft)
= 0.024 ft/ft, Site Bedrock Ground Water Contour Map, January 22, 1996
 n_e = Effective Porosity
= 0.10, 1992 CDM Report.

$$V_s = 30 \times 0.024 / 0.10 = 7.2 \text{ ft/day}$$

II. Retardation Factor (R_d):

Tetrachloroethene:

Where: p_b = Bulk density of Formation (gm/cm³)
= $p_s(1-n_e) = \{2.65(1-0.10)\} = 2.39 \text{ gm/cm}^3$
 p_s = Grain Density (gm/cm³)
= 2.65 gm/cm³ (Ref., Quartz-Fetter)
 k_d = Distribution Coefficient = $K_{oc} \times f_{oc}$
 K_{oc} = Soil-Water Partition Coefficient = 303 (Fetter, 1988)
 F_{oc} = Fraction of Organic Carbon = 0.5% (Fetter, 1988)

$$R_d = 1 + \{(303 \times 0.005) \times 2.39\} / 0.10 = 37$$

1,2,4-Trichlorobenzene:

Where: $P_b = 2.39 \text{ gm/cm}^3$
 $K_{oc} = 1,080 \text{ (Fetter, 1988)}$
 $F_{oc} = 0.5\% \text{ (Fetter, 1988)}$

$$R_d = 1 + \{(1,080 \times 0.005) \times 2.39\} / 0.10 = 130$$

Manganese:

$$R_d = 1 \text{ (no retardation)}$$

III. Pollution Transport Rate (V_{pt}):

Tetrachloroethene:

Where: $V_s = 7.2 \text{ days (Item I)}$
 $R_d = 37 \text{ (Item II)}$

$$V_{pt} = V_s / R_d = 7.2 / 37 = 0.195 \text{ ft/day}$$

1,2,4-Trichlorobenzene:

Where: $V_s = 7.2 \text{ days (Item I)}$
 $R_d = 130 \text{ (Item II)}$

$$V_{pt} = V_s / R_d = 7.2 / 130 = 0.055 \text{ ft/day}$$

Manganese:

Where: $V_s = 7.2 \text{ days (Item I)}$
 $R_d = 1 \text{ (Item II)}$

$$V_{pt} = V_s / R_d = 7.2 / 1 = 7.2 \text{ ft/day}$$

IV: Length of Transport (d):

Tetrachloroethene:

Where: $V_{pt} = 0.195 \text{ ft/day (Item III)}$
 $t = 2,413 \text{ days (Item A)}$

$$d = 0.195 \times 2,413 = 471 \text{ feet}$$

1,2,4-Trichlorobenzene:

Where: $V_{pt} = 0.055 \text{ ft/day (Item III)}$
 $t = 1,160 \text{ days (Item A)}$

$$d = 0.055 \times 1,160 = 64 \text{ feet}$$

SUMMARY:

Parameter	Tetrachloroethene	1,2,4-Trichlorobenzene	Manganese.
Half-Time ($t_{1/2}$)(days)	720	360	•
Time (t) to Meet GWQS (days)	2,413	1,160	•
Seepage Velocity (V_s) (ft/day)	7.2	7.2	7.2
Retardation factor (R_d)	37	130	1
Pollution Transport Rate (V_{pt}) (ft/day)	0.195	0.055	7.2
Length of Transport (d) (ft)	471	64	•

- = Decay values for manganese are indeterminant since it is an inorganic element and does not decay.

- **CEA Monitoring:**

Quarterly monitoring of wells (PW-16, PW-17 and PW-18) located at the Hill Property will be continued until the residual ground water contamination in these wells is detected below the Class IIA GWQS.

- **Water Use Restriction Area (WURA):**

A Water Use Restriction Area has been established for the entire American Cyanamid site in Bridgewater Township, Somerset County. The affected blocks and lots are; Block 6101--Lot 3, Block 6103--Lot 2, Block 6105--Lots 2 and 3, Block 7101--Lots 1 and 2, Block 7207--All Lots, Block 7208--All Lots, Block 7209--All Lots except 14, 16, 18, 20, 21, 23 and 24, Block 7210--All Lots except 5, 7, 9, 11, 13, and 15 and Block 7211--All Lots on the Tax Map of the Bridgewater Township and Block 1--Lot 37A on the Tax Map of Bound Brook. All block, and lot information is referenced from November 4, 1954 tax maps.

- **Deletion of CEA and WURA Designations:**

Once the residual ground water contamination at the Hill Property is recovered at the Main Plant and the GWQS are met in the monitor wells at the Hill Property, the CEA and WURA designations will be lifted and deleted for the Hill Property area. The CEA and WURA designations for the remainder of the American Cyanamid site will remain in effect until the site-wide ground water contamination meets the applicable GWQS.

GLOSSARY

RECORD OF DECISION HILL PROPERTY SOILS AT AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

This glossary defines the technical terms used in this Record of Decision. The terms and abbreviations contained in this glossary are often defined in the context of hazardous waste management, and apply specifically to work performed under the Superfund program. Therefore, these terms may have other meanings when used in a different context.

Administrative Consent Order: A legal and enforceable agreement between NJDEP and the potentially responsible parties (PRPs). Under the terms of the Order, the PRPs agree to perform or pay for site studies or cleanup work. It may also describe the oversight rules, responsibilities, and enforcement options that the government may exercise in the event of non-compliance by the PRPs. This Order is signed by the PRPs and the state government; it does not require approval by a judge.

ARAR: Applicable or relevant, and appropriate requirements.

Berm: A ledge, wall, or a mound of earth used to prevent the migration of contaminants.

Cap: A layer of material, such as clay or a synthetic material, used to prevent rainwater from penetrating wastes and spreading contaminated materials. The surface of the cap is generally mounded or sloped so water will drain off.

CERCLA: Comprehensive Environmental, Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as amended, commonly known as Superfund.

Closure: The process by which a landfill stops accepting wastes and is shut down under federal and state guidelines that provide protection for human health and the environment.

Grubbing: Clearing the ground of roots and stumps by digging them up.

HSWA: Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act of 1976.

NJDEP: New Jersey Department of Environmental Protection.

NCP: National Contingency Plan.

PPM: Parts per million.

RCRA: Resource Conservation and Recovery Act of 1976 as amended.

RCRA Cap: A multi-layer material cap (see definition of "cap" above) which incorporates several impermeable covers to assure integrity. Geomembrane liners, filter fabrics, clay, sand and selected layers of fill materials are used to reach maximum reasonable impermeability.

SARA: Superfund Amendments and Reauthorization Act.

USEPA: United States Environmental Protection Agency.

Volatile Organic Compounds (VOCs): VOCs are produced as secondary petrochemicals. They include light alcohols, acetone, trichloroethylene, perchloroethylene, dichloroethylene, benzene, vinyl chloride, toluene, and methylene chloride. These potentially toxic chemicals are used as solvents, degreasers, paints, thinners, and fuels. Because of their volatile nature, they readily evaporate into the air, increasing the potential exposure to humans. Due to their low water solubility, environmental persistence, and wide-spread industrial use, they are commonly found in soil and ground water.

Wetland: An area that is regularly saturated by surface or ground water and, under normal circumstances, capable of supporting vegetation typically adapted for life in saturated soil conditions.

ADMINISTRATIVE RECORD FILE INDEX

RECORD OF DECISION HILL PROPERTY SOILS AT AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

1. Lagoon 1 & 2 Characterization Report, O'Brien & Gere, October 1982.
2. Phase IV Report Source Assessment and Remedy Program, O'Brien & Gere, February 1983.
3. Monitoring Groundwater Impact on the Raritan River Report, Lawler, Matusky, & Skelly (LMS), October 1983.
4. Source Assessment and Remedy Program Final Report, O'Brien & Gere, December 1984.
5. Sludge Solidification Report for Lagoon 20, IT Corporation, November 1986.
6. Final Report on Continuous Monitoring Assessment Program for Lagoons 6,7,13,19, and 24, Camp Dresser & McKee (CDM), March 1983.
7. Ground water investigation and site-wide ground water model results, CDM 1985.
8. Continued assessment of ground water at Impoundments 17 and 18, CDM 1986.
9. New Jersey Pollutant Discharge Elimination System-Discharge to Ground Water (NJPDDES/DGW) permit # NJ0002313, effective October 30, 1987.
10. Modification to the existing NJPDDES/DGW permit # NJ0002313 issued on November 07, 1987 for the closure of Impoundment 8 facility (Impoundments 6,7,8 and 9A) under the authority of RCRA delegated to the New Jersey Department of Environmental Protection (NJDEP) from USEPA.
11. Continued assessment of ground water at Impoundments 6,7,13,19 and 24, CDM 1988.
12. NJDEP Approval Letter for "No Action" Closure of Lagoon 23, May 1988.
13. Administrative Consent Order (ACO) signed by Cyanamid and NJDEP, May 1988.
14. Quality Assurance/Quality Control (QA/QC) Plan Submitted for Impoundment Characterization Program by Cyanamid, Blasland, Bouck & Lee (BB&L), September 1988.
15. Hazardous and Solid Waste Amendments (HSWA) permit I.D. # NJD0002173276 issued by USEPA on November 8, 1988.
16. Impoundment Characterization Program Sampling and Analysis Work Plan, BB&L, November 1988.
17. NJDEP Approval Letter for QA/QC Program for Impoundment Characterization, December 1988.
18. Berm Failure Prevention Plan, BB&L, February 1989.
19. Impoundments 11, 20, and 26 Resource Conservation and Recovery Act (RCRA) Facility Investigation Work Plan, BB&L, February 1989.

20. NJDEP Community Relations Plan, February 1989.
21. NJDEP Approval Letter for Berm Failure Prevention Plan, March 1989.
22. NJDEP Approval Letter for Impoundments 11, 20, and 26 RCRA Facility Investigation Work Plan, August 1989.
23. Impoundment Characterization Program Final Report, BB&L, January 1990.
24. NJDEP Approval Letter for Implementation of Fuel Blending Program as Interim Remedial Action For Lagoons 4 and 5, August 1990.
25. NJDEP Approval Letter for Impoundment Characterization Program Final Report, October 1990.
26. Impoundment Corrective Measure Study/Feasibility Study (CMS/FS) Work Plan, (BB&L), October 1990.
27. NJDEP Air Permit for Lagoon 4 & 5 Fuel Blending Program, October 1990.
28. NJDEP Stream Encroachment Permit for Lagoon 4 & 5, March 1991.
29. Amended Hill Property Remedial Investigation Report (RI), BB&L, March 1991.
30. NJDEP/USEPA Approval for Hill Property RI, April 1991.
31. NJDEP RCRA Permit Application Approval For Lagoons 4 & 5, June 1991.
32. Technology Evaluation Work Plan (TEWP) for Group I Impoundments, BB&L, July 1991.
33. NJDEP/USEPA Review and Concurrence Letter for TEWP-I, September 1991.
34. TEWP for Group II Impoundments, BB&L, December 1991.
35. NJDEP/USEPA Review and Concurrence Letter for TEWP-II, January 1992.
36. Amended Baseline Site-Wide Endangerment Assessment Report (Including Hill Property), BB&L, March 1992.
37. NJDEP/USEPA Approval Letter for Baseline Site-Wide Endangerment Assessment Report, April 1992.
38. Amended Soils RI/FS Work Plan, BB&L, May 1992.
39. Surface Soils Remedial/Removal Action (SSR/RA) Plan, BB&L, July 21, 1992.
40. A Work Plan for Coal Pile Removal to Impoundment 8 Facility, Cyanamid, August 13, 1992.
41. Hazardous Waste Site Safety and Health Program, Cyanamid, August 31, 1992 (prepared on 07/20/88).
42. CMS/FS report for Group 1 Impoundments, BB&L, October 1992.
43. NJDEP/USEPA approval letter for Group 1 Impoundments CMS/FS report, October 29, 1992.
44. Relocation of Production Wells from Hill Property to Manufacturing Area, Ground Water Modeling Report, CDM, October 1992.
45. Surface Soil Removal/Remedial Action Final Report, BB&L, March 5, 1993.
46. Superfund Proposed Plan for Group I Impoundments, June 30, 1993.
47. Draft Modified HSWA permit I.D # NJD002173276, June 30, 1993.
48. Transcript for August 5, 1993 Public Meeting/Hearing for the Group I Impoundments (11, 13, 19 & 24) Proposed Plan and Draft Modified HSWA Permit.

49. Record of Decision for Group I Impoundments (11, 13, 19 and 24), NJDEP, September 28, 1993.
50. Phase IA Cultural Resource Reconnaissance Report, The Cultural Resource Consulting Group, Revised September 1993.
51. Final HSWA Modified Permit for Group I Impoundments (11, 13, 19 and 24), USEPA, March 4, 1994.
52. Addendum to Final Design Report-Impoundment 8 East Liner Design Modifications, March 1994, BB&L.
53. Amendment to the 1988 ACO, NJDEP, May 4, 1994.
54. Group II Impoundments (1, 2, 15, 16, 17 & 18) CMS/FS Report, BB&L, May 1994.
55. Group I Impoundments (11, 13, 19 and 24) Remedial Design Report, BB&L, May 1994.
56. Final Renewed NJPDES/DGW Permit dated July 15, 1994, NJDEP, Effective September 1, 1994.
57. Remedial Action Plan for Impoundment 19, ENSR and BB&L, July 1994.
58. NJDEP Approval for Group II Impoundments (1, 2, 15, 16, 17 and 18), July 19, 1994.
59. September 16, 1994 Modifications to Remedial Action Plan for Impoundment 19, American Cyanamid.
60. Final Summary Report for Startup of Production Wells PW-2 and PW-3, CDM, August 1994.
61. Impoundment 7 Closure Status Report, BB&L, December 1994.
62. Superfund Update, December 1994, NJDEP.
63. January 30, 1995 letter from American Home Products (AHP) indicating that it has assumed full responsibility for the site remediation as required by the ACO.
64. Petition for Designation of Impoundment 8 as Corrective Action Management Unit (CAMU), February 21, 1995, AHP.
65. Lagoon 8 Closure Certification Report, BB&L, May 1995.
66. NJDEP letter dated May 3, 1995 to Walt Sodie of CRISIS including legal opinion (dated April 25, 1995) from the Deputy Attorney General's office concerning removal of Group II Impoundments (15, 16, 17 and 18) from Flood Hazard Area.
67. USEPA's response to AHP dated May 18, 1995 for CAMU Petition.
68. AHP's response to USEPA dated June 29, 1995 for May 18, 1995 letter concerning CAMU Petition.
69. October 20, 1995 letter from AHP including revised cost estimates for remediation of the Group II Impoundments (15, 16, 17 and 18).
70. Impoundment 19 Closure Certification Report, O'Brien & Gere (OB&G), November 1995.
71. Superfund Proposed Plan for Group II Impoundments (15, 16, 17 & 18) and Hill Property Soils, NJDEP, January 1996.
72. Transcript for February 22, 1996 Public Meeting concerning the Proposed Plan for Group II Impoundments (15, 16, 17 and 18) and Hill Property Soils.
73. March 27, 1996 Letter from OB&G concerning the supporting information for the Classification Exception Area at the Hill Property.
74. 5/10/90 Letter from AHP concerning Security Signs Off Road Vehicles.

RESPONSIVENESS SUMMARY

RECORD OF DECISION HILL PROPERTY SOILS AT AMERICAN CYANAMID SITE AMERICAN HOME PRODUCTS CORPORATION BRIDGEWATER TOWNSHIP, SOMERSET COUNTY

1. INTRODUCTION

A responsiveness summary is required by the New Jersey Department of Environmental Protection (NJDEP) and Superfund program. It provides a summary of residents' comments and concerns received during the public comment period and the public meeting, and NJDEP's and U. S. Environmental Protection Agency's (USEPA) responses to those comments and concerns. All comments summarized in this document have been considered in NJDEP's and USEPA's final decision for the selection of a remedy for the Hill Property Soils at the American Cyanamid Site.

2. OUTLINE

This Responsiveness Summary is divided into the following sections:

- A. Overview
- B. Background on Community Involvement and Concerns
- C. Summary of Comments Received During the Public Meeting and Comment Period and Agency Responses
- D. Community Relations Activities at the American Cyanamid Company Site

A. Overview

This is a summary of the public's comments and concerns regarding the Proposed Plan for Remediation of the Hill Property Soils at the American Cyanamid Company Superfund Site and NJDEP's responses to those comments.

The public comment period extended from January 10, 1996 to February 24, 1996 to provide interested parties the opportunity to comment on the Proposed Plan, Remedial Investigation (RI) Report and the Baseline Endangerment Assessment Report (Baseline EA) for the Hill Property Soils at the American Cyanamid Company Site. During the comment period, the NJDEP and USEPA held a public meeting/public hearing on February 22, 1996 at the Bridgewater Township Municipal Court to discuss the results of the RI and Baseline EA and to present the preferred remedy. This public comment period and meeting also met the public participation requirements for the Hazardous and Solid Waste Amendments (HSWA) requirements for the American Cyanamid Site.

On the basis of the information contained in the above referenced documents, NJDEP and USEPA have selected the following remedy for the Hill Property Soils at the American Cyanamid Site: No Further Action with Ground Water Monitoring.

B. Background on Community Involvement and Concerns

Since 1988, there has been a great deal of concern about a proposal by American Cyanamid to build a commercial hazardous waste incinerator on the site. At present, Cyanamid has no plans to pursue the incinerator, nor does American Home Products. The Somerset-Raritan Valley Sewage Authority already operates a sludge incinerator on property adjoining the American Cyanamid site. In addition, the Somerset County Freeholders designated a tract next to the Authority site for a trash incinerator. While this facility is no longer proposed, a solid waste transfer station is now in operation at this location.

In January 1989, a briefing for public officials and concerned residents was held in Bridgewater to discuss the remedial work under the 1988 ACO and the initiation of the Remedial Investigation/Feasibility Study (RI/FS). A public meeting was held on February 21, 1989 in Bridgewater to discuss the RI/FS. On both occasions residents and local officials expressed concern and anger that they were bearing more than their fair share of society's waste cleanup burden. They made it clear that they did not want the Superfund remediation process to become a mechanism for Cyanamid to site a commercial hazardous waste incinerator.

Attendees at the January and February 1989 meetings also were confused about the remedial process at the site. The main cause of confusion is that some lagoon closures at the site are being handled under the Resource Conservation and Recovery Act (RCRA) because the Cyanamid plant is an operating facility. NJDEP representatives prepared a response to these concerns and forwarded it along with the RCRA response document to public comments received at the June 14, 1988 RCRA public hearing to those attending the January and February 1989 Superfund meetings. The subject of the June 14, 1988 RCRA hearing was the permitting of a permanent waste impoundment for storage of treated materials from the closure of other site impoundments.

NJDEP held a public meeting in Bridgewater on March 11, 1991 to provide an update on the progress of the RI. Residents and officials again expressed their opposition to any type of incineration at the site. Attendees at the meeting also raised concerns about the ongoing closure of the RCRA impoundments and the consolidation of these materials in the new Impoundment 8 facility. Concerns focused on the location of the new facility, safety of the liner and air pollution from ongoing site activities. NJDEP issued a fact sheet addressing these concerns in June of 1991.

Residents' concerns at the American Cyanamid site have been focused through two local groups, CRISIS and the Bound Brook Citizens Association. In March 1991 representatives of CRISIS expressed concerns regarding a proposed modification of a Hazardous Waste Facility permit to allow storage and blending of tars from lagoons 4 and 5. This permit modification was needed so that materials could be blended and heated for off-site shipment for use as alternative fuel in cement kilns. During the summer of 1991, Mayor Dowden of the Township of Bridgewater and other local officials and residents

publicly stated that NJDEP was working too closely with Cyanamid and keeping the township in the dark on site activities.

NJDEP representatives met with Mayor Dowden and other township representatives in Bridgewater to discuss these concerns and review the status of remedial activities on November 27, 1991. As a result of the November meeting, a representative of the Bridgewater Health Department was invited to attend monthly site remediation progress meetings, NJDEP reaffirmed its policy of placing site information in local repositories as soon as documents were completed and NJDEP offered to meet with township and citizen representatives before the start of major site activities.

In 1992, CRISIS received a Technical Assistance Grant (TAG) under the Superfund program from USEPA and hired a consultant to review and evaluate documents on the ongoing Superfund remedial program. On August 4, 1992, NJDEP held a briefing for local officials and representatives of CRISIS in Bridgewater to discuss the planned Surface Soils Remedial/Removal Action (SSR/RA) at the American Cyanamid Site. Township and CRISIS representatives were supportive of the surface soil work but asked for additional information on the health and safety plan for this project which was provided before commencement of work. During the August 4, 1992, meeting officials expressed concern about possible pollution of Cuckhold's Brook during the work and stated that the public was still not convinced that Cyanamid's ground water pumping system was controlling water pollution at this site. In an August 31, 1992 letter, CRISIS requested additional information from NJDEP on other site remediation issues including the development of the Risk Assessment document, health evaluations, construction of chemical processing plants as part of the cleanup process, and proposed ground water cleanup standards. NJDEP responded in a September 8, 1992 letter. NJDEP held a formal public comment period on the SSR/RA from September 17, 1992 through October 16, 1992. No additional comments on the SSR/RA were received during this period.

Representatives of NJDEP and USEPA visited the site with Congressman Robert Franks, Township officials and members of CRISIS on April 16, 1993. In response to concerns raised about remedial activities at the site by CRISIS representatives during this visit, NJDEP and USEPA offered, in an April 20, 1993 letter, to meet again with Bridgewater and CRISIS officials to address these concerns.

NJDEP issued a Superfund Update for the American Cyanamid site in December 1994.

NJDEP issued a Superfund Proposed Plan for the Group II Impoundments and Hill Property Soils in January 1996 and held a public comment period from January 10, 1996 to February 24, 1996. NJDEP held a briefing with the Bridgewater Township officials and a public meeting on February 22, 1996 to discuss the Proposed Plan for the Group II Impoundments and Hill Property soils.

C. Summary of Comments Received During the Public Comment Period and Agency Responses

At the February 1996 public meeting, CRISIS stated its support for NJDEP's preferred alternative for the Hill Property Soils. Also, a member of CRISIS requested information about American Home Products' plans for future development at the Hill Property and the remainder of the site. An American Home Products representative indicated that the company would like to sell the Hill Property, but that it has no plans to sell the remainder of the site. A copy of a transcript for the February 22, 1996 public meeting is attached to this ROD.

D. Community Relations Activities at the American Cyanamid Site

NJDEP established information repositories at the following locations:

Bridgewater Town Hall
700 Garretson Road
Bridgewater, NJ 08807 Phone # (908) 725-6300

Somerset County/Bridgewater Library
North Bridge Street & Vogt Drive
Bridgewater, NJ 08807 Phone # (908) 526-4016

New Jersey Department of Environmental Protection And Energy
Bureau of Community Relations
401 East State Street, CN 413
Trenton, NJ 08625 Phone # (609) 984-3081
Contact: Fred Mumford

NJDEP held a briefing for public officials and concerned residents in Bridgewater to discuss the corrective action portion of the 1988 Administrative Consent Order and the initiation of the Remedial Investigation/Feasibility Study (RI/FS) (January 1989).

NJDEP held a public meeting in Bridgewater to discuss the RI/FS (February 21, 1989).

NJDEP prepared a Community Relations Plan (February 1989).

NJDEP forwarded information requested at the February 21, 1989 meeting to those attending (April 20, 1989).

NJDEP held a public meeting in Bridgewater to update the RI/FS progress (March 11, 1991).

NJDEP issued a Superfund Site Update fact sheet in response to concerns raised at the March 11, 1991 meeting (June 1991).

NJDEP met in Bridgewater with township officials to discuss concerns raised by Bridgewater regarding ongoing site activities (November 27, 1991).

NJDEP held a briefing in Bridgewater for officials and CRISIS representatives to discuss initiation of the Surface Soils Remedial/Removal Action (SSR/RA) (August 4, 1992).

NJDEP held a public comment period on the SSRRA from September 17, 1992 through October 16, 1992.

NJDEP held a public comment period from June 30, 1993 through September 12, 1993 and a public meeting in Bridgewater on August 5, 1993 to discuss the Proposed Plan for Remediation of the Group I Impoundments and Modification of the Hazardous and Solid Waste Amendments Permit.

NJDEP issued a Record of Decision for the Group I (11, 13, 19 and 24) Impoundments in September 1993.

NJDEP issued a Superfund Update for the American Cyanamid site in December 1994.

NJDEP issued a Superfund Proposed Plan for the Group II Impoundments and Hill Property Soils in January 1996 and held public comment period from January 10, 1996 to February 24, 1996.

NJDEP held a briefing with Bridgewater Township officials and a public meeting on February 22, 1996 to discuss the Proposed Plan for the Group II Impoundments and Hill Property Soils.

E. Transcript of Public Meeting

Copy of a transcript for the February 22, 1996 meeting is attached to the Responsiveness Summary.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
200 BROADWAY
NEW YORK, NY 10007-1066

JUN 28 1996

Robert C. Shinn, Jr., Commissioner
State of New Jersey
Department of Environmental Protection and Energy
401 East State Street, CN 402
Trenton, New Jersey 08625-0402

Re: Record of Decision
American Cyanamid Superfund Site
Bridgewater Township, Somerset County, New Jersey

Dear Commissioner Shinn:

The United States Environmental Protection Agency (EPA), Region II, has reviewed the two draft Records of Decision (RODs), dated May 1996, for the American Cyanamid Superfund Site (Site), which is located in Bridgewater Township, Somerset County, New Jersey.

EPA concurs with the selected remedy for the Group II Impoundments, which includes the in-place containment of waste material from Impoundments 15 and 16, excavation, on-site solidification and containment of the waste material from Impoundment 17, and No Action with Monitoring for Impoundment 18. In addition, EPA concurs with the decision of No Action with Monitoring for the Hill Property portion of the site. EPA has determined that the selected remedies are consistent with Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) based on the administrative record for the Site. This finding shall not affect EPA's right to conduct five-year reviews of the Site or to take or require appropriate action pursuant to such review, in accordance with Section 121(c) of CERCLA. EPA further reserves the right to take response and enforcement actions pursuant to Sections 104, 106 and 107 of CERCLA with respect to the remedy and any additional future work at the Site.

Sincerely,

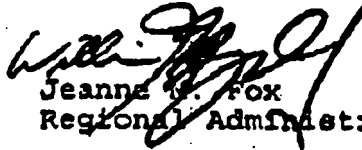
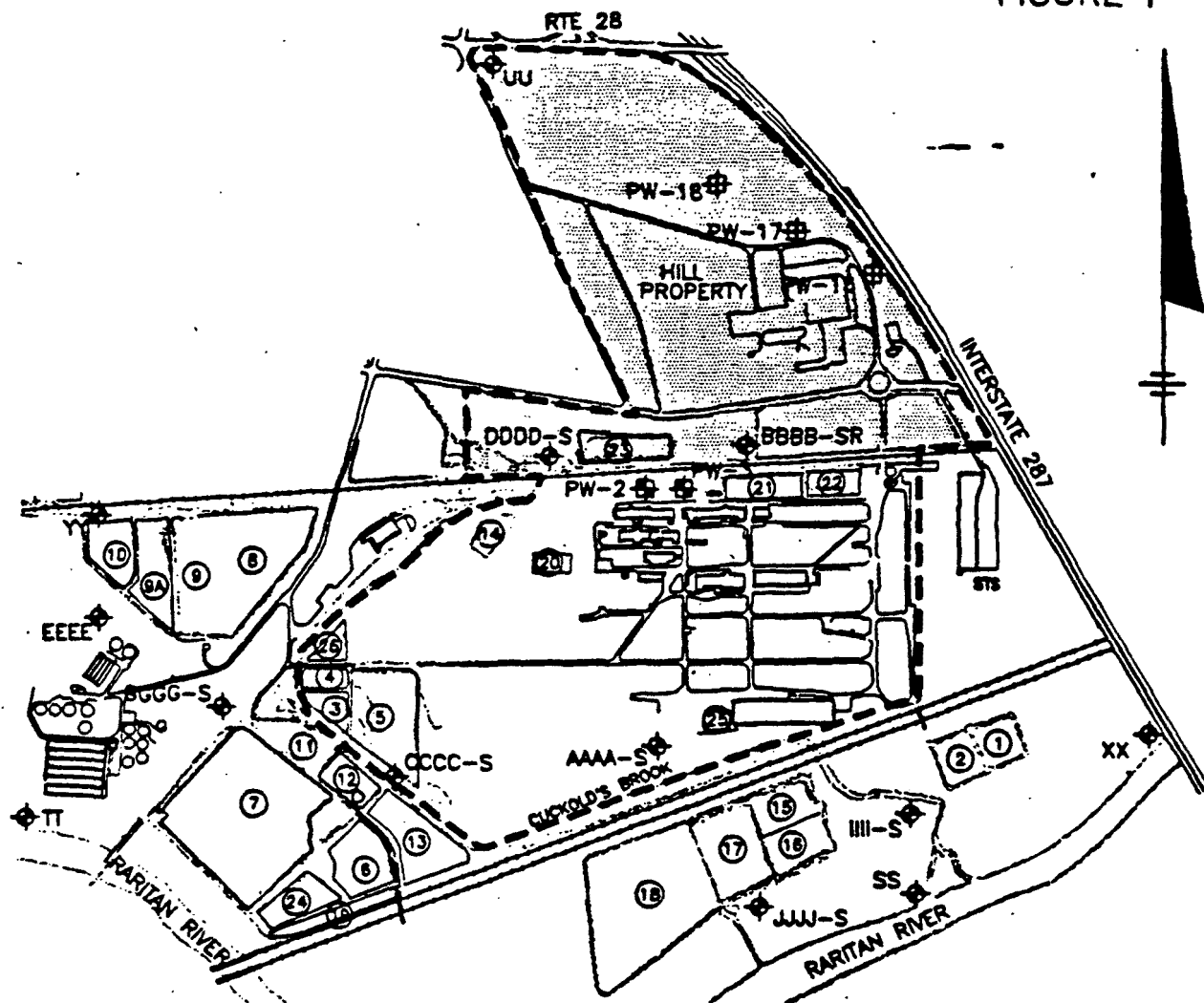

Jeanne M. Fox
Regional Administrator

FIGURE 1



LEGEND

- ⊗ FORMER PRODUCTION WELL LOCATION
- ⊙ CURRENT PRODUCTION WELL LOCATION
- ⊕ QUARTERLY MONITORING WELL LOCATION
- CEA LIMITS

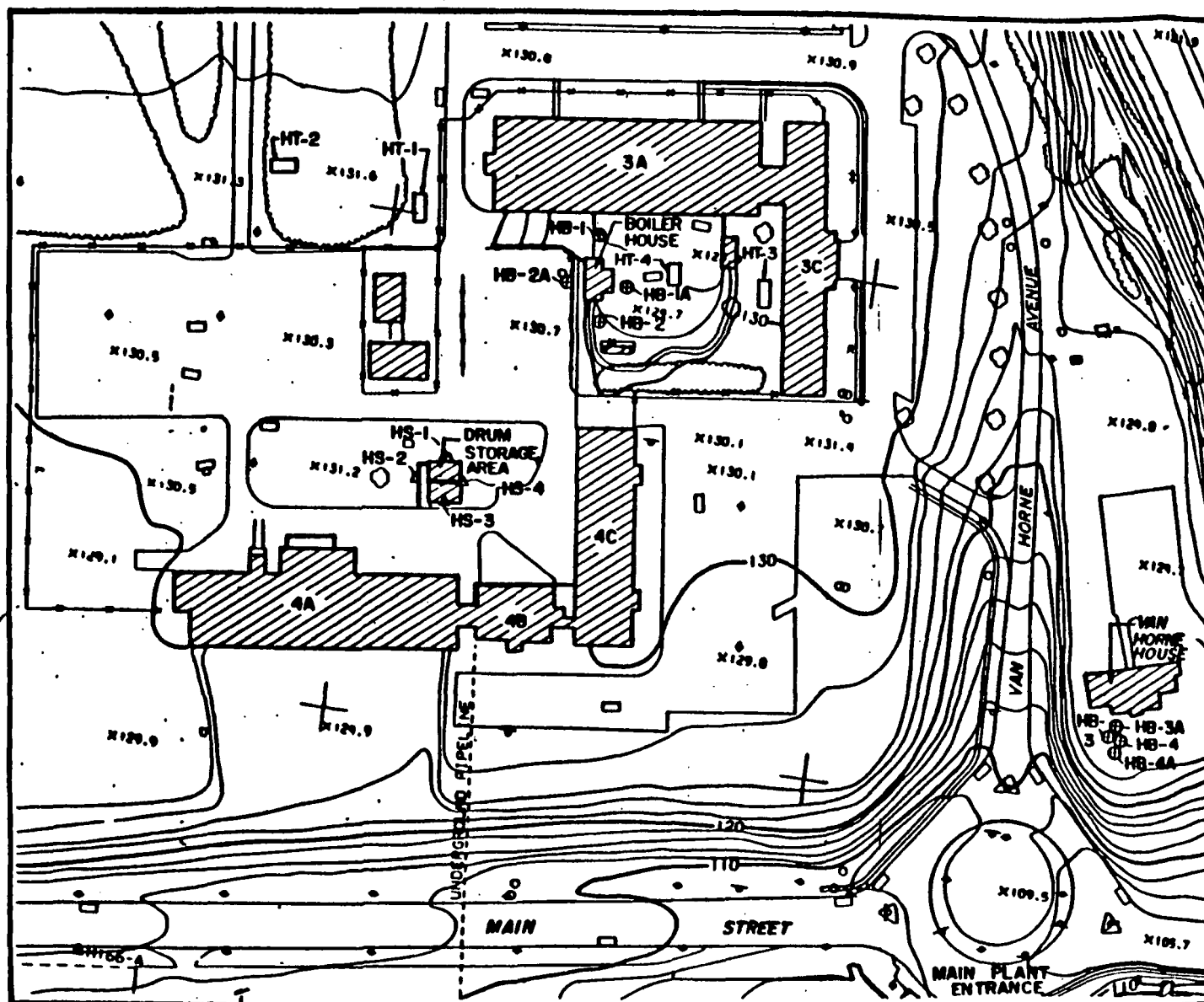
AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

HILL PROPERTY

N.T.S.

FILE No. 5772.010

FIGURE 2



AMERICAN CYANAMID
BOUND BROOK, N.J.

HILL PROPERTY
SAMPLING LOCATIONS

SCALE 1"=100'



TABLE 1

AMERICAN CYANAMID COMPANY
MILL PROPERTY - ANALYTICAL DATA SUMMARY

Page 1 of 2

NUDEP Impact to Ground Water Soil Cleanup Criteria (ppm)	NUDEP Residential Direct Contact Cleanup Criteria (ppm)	Sample	MS - 1	MS - 2	MS - 3	MS - 4	Method Blank (MS)	MS - 1 6' - 8'	MS - 1A 8' - 10'	MS - 2 7' - 9'	MS - 2A 9' - 11'	Method Blank (PAD)	MS - 3 6' - 8'	MS - 3A 8' - 9'	MS - 4 6' - 8'	MS - 4A 8' - 9'	Method Blank MS (Tank) *
		VOLATILES															
1	48	Methylene Chloride	0.005 JB	0.005 JB	0.005 B	0.005 JB	0.010	0.011	0.26 B	0.030 B	0.122 B	0.010					
100	1000	Acetone	0.008 JB	0.010 JB	0.011 JB	U	0.007 J	U	U	0.068	0.46						
1	3	Benzene	0.002 J	U	0.003 J	U											
800	1000	Toluene	0.003 J	0.001 J	0.016	0.003 J											
10	410	Total Xylenes	U	U	0.023	U											
		SEMI - VOLATILES *															
100	230	Naphthalene	0.010 J	U	0.007 J	0.008 J		14 J	0.14 JB	0.12 JB	U	0.011					
N/A	N/A	2-Methylnaphthalene	0.008 J	U	0.005 J	0.008 J		12 J	0.27 J	0.15 J	U						
100	3400	Acenaphthene	0.028 J	U	0.008 J	0.029 J		U	0.31 J	0.082 J	U						
N/A	N/A	Dibenzofuran	0.007 J	U	0.004 J	0.010 J		7.4 J	0.17 J	0.054 J	U						
80	10,000	Diethyl Phthalate	0.022 J	U	0.016 J	0.017 J		U	0.051 JB	0.041 JB	U	0.038					
100	2300	Fluorene	0.018 J	U	0.007 J	0.024 J		10 J	0.46	0.14 J	U						
N/A	N/A	Phenanthrene	0.270 J	0.110 J	0.110 J	0.310 J		42	2.3	0.60	0.088 J						
100	10000	Anthracene						12 J	0.56	0.14 J	U						
100	2300	Fluoranthene	0.690	0.230 J	0.190 J	0.480		31	2.0	0.33 J	U						
100	1700	Pyrene	0.540	0.160 J	0.330 J	0.980		37	2.6	0.49	0.095 J						
500	0.8	Benzo(a)anthracene	0.210 J	0.081 J	0.082 J	0.220 J		13 J	1.1	0.18 J	U						
500	8	Chrysene	0.280 J	0.120 J	0.11 J	U		16 J	1.2	0.21 J	U						
100	48	Bis(2-ethylhexyl)phthalate	0.052 JB	0.034 JB	0.190 JB	2.000 B	20 J	U	1.3	2.0	U						
50	0.8	Benzo(b)fluoranthene	0.120 J	0.068 J	0.092 J	0.200 J		U	0.61	0.063 J	U						
800	0.8	Benzo(k)fluoranthene	0.180 J	0.090 J	0.083 J	0.170 J		U	0.52	U	U						
100	0.88	Benzo(a)Pyrene	0.130 J	0.055 J	0.082 J	0.210 J		8 J	0.72	0.13 J	U						
N/A	N/A	Benzo(a,h)Perylene						U	0.4	U	U						
100	0.88	Dibenz(a,h)Anthracene	U	U	0.008 J	U		U	0.68	U	U						
100	5700	Di-N-Butyl Phthalate	U	U	U	0.012 J		U	0.25 J	U	U						
100	1100	Butyl Benzyl Phthalate	U	U	U	0.038 J		U	0.25 J	U	U						
50	0.48	PCB's	U	U	U	U		U	0.31	0.45	U						
		INORGANICS *															
N/A	1	Beryllium	0.70	1.10	0.74	0.60											
N/A	N/A	Chromium (Total)						184	108	138	232						
N/A	370	Vanadium						193 ***	135 ***	159 ***	339 ***						
N/A	1000	VOCs	0.018	0.018	0.059	0.008		0.011	0.026	0.058	0.582						
N/A	N/A	PAHs	2.441	0.912	1.072	2.620		195	13.19	2.885	0.183						
N/A	N/A	Benz / Naphthalene	2.522	0.946	1.262	4.897		202.4	15.651	4.780	0.183						
N/A	N/A	Total Petroleum Hydrocarbons											<12	<12	<11	<12	<10

TABLE 1 (Cont'd)

AMERICAN CYANAMID COMPANY
MILL PROPERTY - ANALYTICAL DATA SUMMARY

Page 2 of 2

Notes

- 1 All concentrations are reported in ppm on a dry-weight basis.
- 2 All samples were analyzed for the entire TCL volatile and TCL semivolatile list. Those volatiles and semivolatiles listed are those which were detected in at least one sample.
- 3 Inorganics listed include only those exceeding NJDEP soil cleanup criteria.
- 4 HS 1, 2, 3, and 4 - Drum storage pad surface soils.
- 5 HB 1, 1A, 2, and 2A - Boiler House tank subsurface soils.
- 6 HB 3, 3A, 4, and 4A - Van Horne House fuel oil tank.
- N/A NJDEP cleanup criteria not available.
- J Compound is present at a concentration below the minimum detection limit (MDL). The reported value is estimated.
- U Undetected Concentrations is below the MDL.
- B Analyte was found in blanks, as well as the sample.
- Only TPH analyzed since source of potential contaminant was a fuel oil tank.
- ** This sample collected at a depth of 8 to 10 feet, therefore, direct contact was not applicable.
- *** Based on background soil sampling, chromium, vanadium, and beryllium were determined to be comparable to background.

Table 2--Record of Decision

SUMMARY OF TOXICITY CRITERIA
CHEMICALS OF INTEREST
HILL PROPERTY

AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

<u>Chemical</u>	<u>USEPA Carcinogenicity Classification³</u>	<u>Oral CPF¹ (Slope Factor) (mg/kg/day)⁻¹</u>	<u>Oral RID² (mg/kg/day)</u>
Volatiles			
* Methylene Chloride	B2	7.5E-3	6.0E-2
* Acetone	D		1.0E-1
* Benzene	A	2.9E-2	
* Toluene	D		2.0E-1
* Xylenes (total)	D		2.0E+0
Semivolatiles			
*** Naphthalene	D		4.0E-3
**** 2-Methylnaphthalene	-		4.0E-3
* Acenaphthene	D		6.0E-2
* Diethyl Phthalate	D		8.0E-1
* Fluorene	D		4.0E-2
* Fluoranthene	D		4.0E-2
* Pyrene	D		3.0E-2
*** Benzo(a)anthracene	B2	1.15E+0	
*** Chrysene	B2	1.15E+0	
* Bis(2-ethylhexyl)phthalate	B2	1.40E-2	2.0E-2
*** Benzo(b)fluoranthene	B2	1.15E+0	
*** Benzo(k)fluoranthene	B2	1.15E+0	
*** Benzo(a)pyrene	B2	1.15E+1	
*** Dibenzo(a,h)anthracene	B2	1.15E+1	
* Di-n-butyl phthalate	D		1.0E-1
* Butyl Benzyl Phthalate	C		2.0E-1
Inorganics			
* Beryllium	B2	4.3E+0	5.0E-3

Notes:

- 1 Cancer Potency Factor (CPF)
- 2 Reference Dose (RID)
- 3 IRIS (1992)
- * Toxicity values from IRIS (1992)
- ** Toxicity values from USEPA (1991b)
- *** Toxicity values from USEPA as per case-specific guidance (1991/1992)
- **** Analogous criteria

Table 3--Record of Decision
Page 1 of 4

HILL PROPERTY

INGESTION EXPOSURE TO SURFACE SOILS
BASELINE CONDITIONS - MAINTENANCE EMPLOYEES
CARCINOGENIC RISKS

AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

<u>Chemical</u>	<u>Assumed Exposure Concentration (mg/kg dry wt.)</u>	<u>Ingestion Exposure Dosage (mg/kg/day)</u>	<u>Oral CPF (mg/kg/day)⁻¹</u>	<u>Cancer Risk</u>
Volatiles				
Methylene Chloride	0.006	5.03E-10	7.50E-03	4E-12
Benzene	0.003	2.52E-10	2.90E-02	7E-12
Semivolatiles				
Benzo(a)anthracene	0.22	1.85E-08	1.15E+00	2E-08
Chrysene	0.28	2.35E-08	1.15E+00	2E-08
Bis(2-eh)phthalate	2.0	1.68E-07	1.40E-02	2E-09
Benzo(b)fluoranthene	0.20	1.67E-08	1.15E+00	2E-08
Benzo(k)fluoranthene	0.18	1.51E-08	1.15E+00	2E-08
Benzo(a)pyrene	0.21	1.76E-08	1.15E+01	2E-07
Dibenzo(a,h)anthracene	0.006	5.03E-10	1.15E+01	6E-09
Inorganics				
Beryllium	1.1	9.23E-08	4.30E+00	4E-07
Total:				7E-07

Table 3--Record of Decision
Page 2 of 4

HILL PROPERTY

INGESTION EXPOSURE TO SURFACE SOILS
BASELINE CONDITIONS - MAINTENANCE EMPLOYEES
NONCARCINOGENIC RISKS
AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

<u>Chemical</u>	<u>Assumed Exposure Concentration (mg/kg dry wt.)</u>	<u>Ingestion Exposure Dosage (mg/kg/day)</u>	<u>Oral RFD Chronic (mg/kg/day)</u>	<u>Hazard Index</u>
Volatiles				
Methylene Chloride	0.006	1.41E-09	6.00E-02	2E-08
Acetone	0.011	2.58E-09	1.00E-01	3E-08
Toluene	0.016	3.76E-09	2.00E-01	2E-08
Total Xylenes	0.023	5.40E-09	2.00E+00	3E-09
Semivolatiles				
Naphthalene	0.01	2.35E-09	4.00E-03	6E-07
2-Methylnaphthalene	0.008	1.88E-09	4.00E-03	5E-07
Acenaphthene	0.029	6.81E-09	6.00E-02	1E-07
Diethyl Phthalate	0.022	5.17E-09	8.00E-01	6E-09
Fluorene	0.024	5.64E-09	4.00E-02	1E-07
Fluoranthene	0.65	1.53E-07	4.00E-02	4E-08
Pyrene	0.98	2.30E-07	3.00E-02	8E-08
Bis(2-eh)phthalate	2.00	4.70E-07	2.00E-02	2E-05
Di-N-butyl phthalate	0.012	2.82E-09		
Butyl Benzyl Phthalate	0.038	8.92E-09	2.00E-01	4E-08
Inorganics				
Beryllium	1.1	2.58E-07	5.00E-03	5E-05
Total:				9E-05

Table 3--Record of Decision

Page 3 of 4

HILL PROPERTY

INGESTION EXPOSURE TO SURFACE SOILS
FUTURE USE SCENARIO - OFFICE WORKERS
CARCINOGENIC RISKS

AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

<u>Chemical</u>	<u>Assumed Exposure Concentration (mg/kg dry wt.)</u>	<u>Ingestion Exposure Dosage (mg/kg/day)</u>	<u>Oral CPF (mg/kg/day)⁻¹</u>	<u>Cancer Risk</u>
Volatiles				
Methylene Chloride	0.006	1.05E-09	7.50E-03	8E-12
Benzene	0.003	5.24E-10	2.90E-02	2E-11
Semivolatiles				
Benzo(a)anthracene	0.22	3.84E-08	1.15E+00	4E-08
Chrysene	0.28	4.89E-08	1.15E+00	6E-08
Bis(2-eh)phthalate	2.0	3.49E-07	1.40E-02	5E-09
Benzo(b)fluoranthene	0.20	3.49E-08	1.15E+00	4E-08
Benzo(k)fluoranthene	0.18	3.15E-08	1.15E+00	4E-08
Benzo(a)pyrene	0.21	3.67E-08	1.15E+01	4E-07
Dibenzo(a,h)anthracene	0.006	1.05E-09	1.15E+01	1E-08
Inorganics				
Beryllium	1.1	1.92E-07	4.30E+00	8E-07
Total:				1E-06

Table 3--Record of Decision

Page 4 of 4

HILL PROPERTY

INGESTION EXPOSURE TO SURFACE SOILS
FUTURE USE SCENARIO - OFFICE WORKERS
NONCARCINOGENIC RISKS
AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

<u>Chemical</u>	<u>Assumed Exposure Concentration (mg/kg dry wt.)</u>	<u>Ingestion Exposure Dosage (mg/kg/day)</u>	<u>Oral RFD Chronic (mg/kg/day)</u>	<u>Hazard Index</u>
Volatiles				
Methylene Chloride	0.006	2.94E-09	6.00E-02	5E-08
Acetone	0.011	5.38E-09	1.00E-01	5E-08
Toluene	0.016	7.83E-09	2.00E-01	4E-08
Total Xylenes	0.023	1.13E-08	2.00E+00	6E-09
Semivolatiles				
Naphthalene	0.01	4.89E-09	4.00E-03	1E-06
2-Methylnaphthalene	0.008	3.91E-09	4.00E-03	1E-06
Acenaphthene	0.029	1.42E-08	6.00E-02	2E-07
Diethyl Phthalate	0.022	1.08E-08	8.00E-01	1E-08
Fluorene	0.024	1.17E-08	4.00E-02	3E-06
Fluoranthene	0.65	3.18E-07	4.00E-02	8E-06
Pyrene	0.98	4.79E-07	3.00E-02	2E-05
Bis(2-eh)phthalate	2.00	9.78E-07	2.00E-02	6E-05
Di-N-butyl Phthalate	0.012	5.87E-09	1.00E-01	6E-08
Butyl Benzyl Phthalate	0.038	1.86E-08	2.00E-01	9E-08
Inorganics				
Beryllium	1.1	5.38E-07	5.00E-03	1E-04
Total:				2E-04

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
SITE REMEDIATION PROGRAM**

**PUBLIC MEETING TO DISCUSS A PROPOSED PLAN FOR
THE REMEDIATION OF THE GROUP II IMPOUNDMENTS
(15, 16, 17 & 18) AND HILL PROPERTY SOILS**

PUBLIC MEETING AGENDA

Division of Responsible Party Site Remediation

AMERICAN CYANAMID SUPERFUND SITE

Thursday, February 22, 1996

7:00 p.m.

Bridgewater Township Municipal Court

Bridgewater Township, New Jersey

APPEARANCES:

ROMAN LUZECKY, Section Chief, NJDEP

HAIYESH SHAH, Case Manager, NJDEP

STEVEN J. ROLAND, O'Brien and Gere Engineers, Inc.

**J & J TRANSCRIBERS, INC.
TRANSCRIBER, PATRICIA C. DUPRE
268 Evergreen Avenue
Hamilton, New Jersey 08619
(609) 586-2311 FAX (609) 587-3599**

1 MR. LUZECKY: Excuse me, we're ready to start thank
2 you. My name is Roman Luzecky, I am a Section Chief with the
3 New Jersey Department of Environmental Protection, in the site
4 remediation program.

5 I would like to acknowledge the presence of
6 councilman Bob Ulvano, Health Officer Dick Martini, and Sharon
7 Jaffes, EPA Project Manager.

8 We are here to discuss the proposed plan for the
9 American Cyanamid site, that presents NJDEP's preferred
10 cleanup plan, for a portion of this contaminated site. I'd
11 like to remind you that we have a handout that includes an
12 agenda, a fact sheet, and a summary of the community relations
13 program.

14 A meeting evaluation form is also attached, and we
15 would ask you to fill out both sides, and leave it at the sign
16 in table, before leaving.

17 I would also request that anyone who has not signed
18 in, to please do so, as we will use these lists for future
19 mailings.

20 We are here tonight to both share information with
21 you, and receive your comments and questions. This is part of
22 our commitment, to community involvement that is described in
23 detail in the community relations summary in the handout
24 you've received tonight.

25 On the back of this sheet, is a flow chart of the

1 major steps in the site cleanup. And we are at step six now.
2 The floor will be open for questions and comments after the
3 presentation. We do have an audio transcriber here to record
4 our proceedings. This is required under Superfund
5 regulations.

6 If you would like to speak, please come up to the
7 microphone, and identify yourself, and your affiliation
8 clearly, so the transcriber can hear you.

9 Also, the fact sheet gives details on where
10 submit written comments if you prefer. The comment period
11 officially closes this Saturday, but comments will be accepted
12 until Monday. Also, an extension of the comment period can be
13 requested here tonight, or contact us by Monday if you need
14 additional time.

15 We will try to keep our presentation brief, to allow
16 sufficient time for your questions and comments. We hope that
17 you will also limit the length of your comments, so that
18 everyone who wishes to speak has the opportunity to do so.

19 Please hold any comments and questions until we
20 finish our presentation. Now, I'd like to introduce Haiyesh
21 Shah, Case Manager at the DEP Site Remediation Program, who
22 will present a brief overview of the site history.

23 Steve Roland of O'Brien and Gere, consultants for
24 American Home Products, who will discuss the remedial
25 investigation and feasibility study, and present the remedial

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1 alternatives for the site.

2 I would also like to acknowledge Fred Mumford, the
3 Department's Community Relations Coordinator, for the site.

4 MR. SHAH: Good evening everyone. Can you hear me
5 back there? My name is Haiyesh Shah and I'm the Case Manager
6 for the American Cyanamid site, with the New Jersey Department
7 of Environmental Protection.

8 Tonight, I'll present a brief history of the site,
9 and the overall strategy for site cleanup, at the American
10 Cyanamid site. First of all, I would like to mention that the
11 American Home Products Corporation, purchased American
12 Cyanamid in December 1994, and has assumed the full
13 responsibility for ongoing environmental remediation at this
14 site.

15 The map on the screen shows important features of
16 the site, and site location. The site was used for 75 years
17 to manufacture various chemicals, dyes, pigments, and
18 pharmaceuticals by using various inorganic and organic raw
19 materials. Currently, all -- only pharmaceuticals are being
20 manufactured.

21 The manufacturing area is most of the waste
22 generated from the past manufacturing operations were stored
23 in the on-site surface impoundments, and the general plant
24 waste and debris were stored in the West Yard area. This is
25 West Yard area, and this is production area. And surface

1 impoundments are this.

2 The site was included on the National Priorities
3 list of Superfund in December of 1982. American Cyanamid
4 Company and the New Jersey DEP signed an Administrative
5 Consent Order, which is an enforcement document in May 1988,
6 which was amended in May 1994. This ACO was signed to address
7 the site-wide remediation at this site, including all surface
8 impoundments, contaminated soils, and contaminated ground
9 water.

10 The United States Environmental Protection Agency
11 issued the hazardous and solid waste amendment permit in
12 November of 1988. This permit is equivalent to the ACO, and
13 it's also consistent with the ACO.

14 The proposed plan we are discussing tonight,
15 preferred proposed plan is equivalent to the RCRA's statement
16 of basis, since the cleanup at the site is being addressed
17 under the State Administrative Consent Order, as well as the
18 Superfund program, USEPA will avoid duplication of effort, and
19 will not at this time, renew the HSWA permit.

20 American Cyanamid is currently pumping at least
21 650,000 gallons of contaminated ground water, to control the
22 ground water contamination at the main plant, and production
23 area of the site. Ground water recovery wells are shown on
24 the map. PW-1 and PW-2.

25 This ground water pumping has been in operation

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1 since 1982, and is effectively controlling ground water
2 contamination at the main plant area of the site. In order to
3 more efficiently control ground water contamination, the
4 former production wells, at the Hill Property areas, 6 --
5 PW-16, 17, and 18, have been relocated to the main plant area,
6 PW-2 and PW-3.

7 The residual ground water contamination at the Hill
8 Property area, is now being recovered at the main plant area,
9 through PW-2 and PW-3 ground water recovery wells.

10 The former recovery wells at the Hill Property have
11 been converted into the monitor wells, and these monitor wells
12 are being routinely monitored to verify that the residual
13 ground water contamination at the Hill Property is being
14 decreased by the recovery pumping at PW-2 and PW-3 area.

15 We have seen between 90 and 95 percent decrease in
16 ground water contamination through the pumping of PW-2 and
17 PW-3.

18 American Cyanamid has completed several remedial
19 programs to date. Including pumpable -- removal of pumpable
20 tars from the impoundments one and two, a berm stability
21 program surrounding main plant and West Yard area, hot spots
22 removal for surface soil contamination and removal of pumpable
23 tars from impoundments 4 and 5, blending them on the site, and
24 then shipping them off-site, for beneficial use as
25 supplemental fuel in cement kiln process.

1 American Cyanamid is currently performing remedial
2 actions on impoundments 6, 7, and 8. The remedial
3 investigation conducted at the Hill Property did not find any
4 contamination above the New Jersey DEP soil cleanup criteria,
5 or the background, therefore no further actions, no further
6 remedial actions are required at the Hill Property soils.

7 The site-wide remediation program has been divided
8 into three units. First unit is surface impoundments. The
9 surface impoundments have been divided further into three
10 groups. Group I includes impoundments 11, 13, 19 and 24.
11 Group II impoundments which is the focus of tonights
12 discussion includes impoundments 15, 16, 17, and 18. And
13 Group III impoundments includes impoundments 1, 2, 3, 4, 5,
14 14, and 20 and 26.

15 A Superfund Record of Decision was signed for the
16 Group I impoundments in September of 1993. Selecting
17 solidification and consolidation of solidified material, into
18 the impoundment 8 facility, as a remedy. Remediation of
19 impoundment 19, has been complete -- has been completed.

20 Remedial design for the remaining Group I
21 impoundments is in progress, containing impoundments 11, 13,
22 and 24.

23 A feasibility study evaluating different remedial
24 alternatives for the Group III impoundments, is expected to be
25 completed in April of this year. The proposed plan we are

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1 discussing tonight, only addresses Group II impoundments and
2 the Hill Property soils.

3 The second unit is site-wide soils. A remedial
4 investigation for the site-wide soils has been completed, a
5 feasibility study evaluating different remedial alternatives
6 will be initiated after completion of the remediation of all
7 surface impoundments.

8 And the final unit is ground water. As I discussed
9 earlier, ground water is currently being controlled at the
10 West Yard and production areas of the site. And since
11 impoundments and soils are the major source of ground water
12 contamination, once these sources have been addressed, the
13 final site-wide ground water contamination will be addressed
14 at that time. And will comply with all state and Federal
15 applicable requirements at that time.

16 Now, at this time, I would like to turn over to Mr.
17 Steven Roland of O'Brien and Gere, consultant to American Home
18 Products who will present a review of the studies conducted
19 for the Group II impoundments, and the Hill Property soils.
20 Mr. Roland please.

21 MR. ROLAND: Good evening. Thanks Haiyesh.

22 MR. SHAH: You're welcome.

23 MR. ROLAND: I'd like to first indicate I appreciate
24 the opportunity to talk to each of you tonight, to share with
25 you the next step in this fairly complex remedial program. As

1 Roman indicated, the comments tonight are very -- are very
2 general overview, that the technical detail is contained in
3 the proposed plan, or the reports which are available at the
4 local library.

5 As I go through the Group II impoundments, and the
6 remedial investigation for the Hill Property, I'd like to hit
7 on a few aspects on the overall site remediation at the site.

8 First off, Haiyesh hit or discussed the current
9 status. This figure is a little difficult to find --
10 basically there are 26 impounds at the site.

11 Of those there are six which currently have a no
12 further action required. Four in which remediation has been
13 completed. Five, in which the plans, the remedial plans have
14 been approved. And are pending implementation.

15 The four impounds that we're discussing tonight, and
16 presenting what remedial alternative is appropriate, for these
17 impounds, and in the Group III impounds, which are the
18 remaining 8 impounds, in which the feasibility study will be
19 completed by April of this year.

20 I'd also like to give you a little overview of the
21 plans, for what's coming up in 1996, it's a very aggressive
22 remedial program. Currently planned are impounds 15, 16, 17
23 and 18, which are subject to tonight's discussions.
24 Completing the remediation for these impounds.

25 Impounds 11, and 13, where the Designs are ongoing,

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1 and we hope to complete these, the closure of these impounds,
2 during 1996. And we've also found a potential market for the
3 remaining tars in impounds 4 and 14. And if this market
4 proves viable, we would hope to basically remediate and remove
5 these tars, for beneficial re-use, during 1996.

6 Also, the remedial design for impound 6, Lagoon 6,
7 will happen in 1996. And the completion of the Group III
8 treatability studies and feasibility study report. As you can
9 see, 1990 -- this RCRA program for 1996, is budgeted roughly
10 at 15 to 20 million dollars.

11 Also fundamental to the overall remediation at this
12 site, is a ground water control program. Haiyesh discussed
13 this during his opening remarks, I'd just like to hit on a few
14 other points. The production wells are -- currently consist
15 of two production wells over 300 feet in depth. And basically
16 have been proven to control site ground water. Pumping rate
17 650,000 gallons per day, as monitored by DEP. And required by
18 the consent order.

19 Quarterly ground water sampling is used to monitor
20 contaminant levels in various wells at the site. And it is
21 also used to confirm the containment of the site hydraulics.
22 The ground water is based -- is upon pumping, is used as
23 non-contact cooling water, and in discharge the SRVSA for
24 treatment under the accepted permit with the POTW.

25 Haiyesh also mentioned that the production wells had

1 been moved from the Hill Property down to the main plant. The
2 other fundamental pieces of the overall remedial program, at
3 this site, is the impound 8, waste management facility.

4 This facility is a state-of-the-art triple lined,
5 permitted RCRA waste management facility. Okay, it contains
6 leachate detection and collection systems, which are monitored
7 monthly. It also has a ground water cutoff wall, and
8 interceptor trap -- trench, to make sure ground water does not
9 come in contact with the facility.

10 Quarterly ground water monitoring is also conducted
11 along with the leachate collection and detection sumps.

12 Here's a picture of what the impound 8 waste
13 management facility looks like. You can see the treated
14 facility -- treated material is placed over a leachate
15 collection system, this collect any leachate that is generated
16 from the material. Below that is the primary liner. Which
17 basically is an impermeable liner. Underneath that is a
18 secondary leachate detection system, if there was ever any
19 breach in that liner, the leachate would come through and be
20 collected, and detected by this liner -- by this layer.

21 And underneath that, are the secondary and tertiary
22 liners. Also, as you can see, existing ground water control
23 system trench around the site, maintains anywhere from 10 to
24 25 foot separation between ground water and lowest liner.

25 I do -- just do an overview on the results of the

1 remedial investigation, from the Hill Property. The Hill
2 Property basically consists of approximately 140 acres,
3 located north of the main plant. Major features include a
4 former research and development buildings, the main plant
5 parking lot, the Van Horne house, which is a local historic
6 landmark. And the majority of the area consisting of open
7 fields and woodlands.

8 Lagoon 23, is also located in this Hill Property,
9 it's a former de-watering basin for river sediments. Which
10 received a no further action closure from DEP in 1987.

11 Remedial investigation was conducted, just like to
12 review briefly the results. The research and development
13 buildings had been decommissioned and demolished. They're no
14 longer at the site.

15 Three areas of potential concern, were identified
16 where contaminants were handled. These were investigated, the
17 results of this investigation indicated that the soil
18 constituents are below both residential and non-residential
19 DEP cleanup criteria.

20 And based on that, concluded that the current and
21 future risk to human health and environment are below
22 acceptable DEP and EPA levels.

23 We also talked about the relocation of the ground
24 water production wells, which has resulted in a significant
25 decrease in ground water constituents.

1 Ground water will continue to be monitored at this
2 site, under declaration of environmental restriction, and a
3 classification exemption area.

4 The first two impounds I'd like to talk about in
5 Group II, are 15 and 16, which are located on the southern
6 portion of the facility. A remedial investigation was also
7 conducted, to basically characterize the materials within
8 these impounds. From this investigation we found that the
9 impound was used for storage of non-hazardous, iron oxide
10 material.

11 Impound 15 is roughly 2.8 acres in size. A depth of
12 six to nine feet, and contains approximately 27,000 cubic
13 yards.

14 Impound 16, similar, slightly larger, 3 acres, depth
15 five to 10 feet, and 31,000 cubic yards.

16 The primary -- the results of the analytical
17 identified primarily inorganic constituents, associated with
18 this material.

19 Due to that, there is no vegetative cover. We also
20 conduct -- or a subsurface investigation was also conducted,
21 and through that was identified that there's a continuous silt
22 and clay layer, which underlies both impounds, 15 and 16.

23 This basically acts as a confining layer, for many
24 leachate as generated from these impounds. And as such, there
25 is minimal to no impact identified on ground water in the

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1 vicinity of these impounds.

2 The baseline endangerment assessment, is basically
3 an assessment to determine the risk as they exist in their
4 current state. Identified only slight human and ecological
5 risk. Human risk via ingestion, dermal and inhalation.
6 Again, in its existing stage before remediation.

7 Next impound I'd like to discuss is impound 17,
8 which is located next to impounds 15 and 16. Impound 17 was
9 used for storage of non-hazardous primary treatment sludge,
10 which was generated from the on-site waste water treatment
11 facility. It's 6.2 acres in size, eight feet in depth, and
12 contains approximately 67,000 cubic yards.

13 The material in essence, is a lime sludge, with
14 trace amounts of both volatile and semi-volatile organic
15 compounds. And inorganic constituents identified through the
16 analytical analysis.

17 This material does support vegetation, there are
18 small brushes, grasses and small trees located on this. The
19 subsurface investigation around impound 17, however,
20 identified that the silt and clay layer, which was a confined
21 layer under impounds 15 and 16, was discontinuous underneath
22 impound 17.

23 And as such, it basically has openings in the silt
24 and clay, which has allowed local ground water to be impacted
25 in this area. The baseline endangerment assessment identified

1 however, that there was only slight human risk. Again, via
2 ingestion, dermal and inhalation in its existing state.

3 Impound 18, is located adjacent to impound 17.
4 Similar to impound 17, it was used for storage of
5 non-hazardous primary treatment sludges from on-site treatment
6 facility. It's a much larger lagoon, 15.4 acres, nine feet in
7 depth, and totaling over 200,000 cubic yards of sludge.

8 The material is similar to impound 17, it's a lime
9 sludge, and through the chemical analysis we only found
10 amounts of volatile and semi-volatiles, and inorganic
11 constituents.

12 This impound has been out of operation for over 30
13 years, and as such, there is a densely -- it is now densely
14 vegetated, with well established trees, and what we term a
15 successive vegetative community in place, currently.

16 The subsurface investigations under this impound,
17 did identify the continuous silt and clay layer, and in the
18 vicinity of this impound, was found to be continuous,
19 underneath this impound, therefore there was no ground water
20 impact, associated with this impound, found in this area.

21 Based on current or future risk, all were found
22 below acceptable DEP and EPA levels, in its current condition.

23 With completion of the remedial investigation, we
24 undertook the feasibility study, first step of that is to
25 identify what are the objectives that you want to accomplish.

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1 Three objectives were identified. First one to eliminate the
2 potential for the incidental ingestion, dermal contact and
3 inhalation, the risk -- the minimal risk that had been
4 identified.

5 To eliminate or control the sludge material, and
6 also to contribute to the compliance of ground water ARARs at
7 the site.

8 For as we develop these alternatives, this is a
9 listing of the nine CERCLA criteria, which are used in the
10 feasibility study. We used these criteria to basically short
11 list down to a select number of alternatives.

12 For impounds 15 and 16 four remedial alternatives
13 were identified. First one no action, limited action. Second
14 in place containment. Third, solidification. And fourth is
15 recycling.

16 The no action, limited action is a -- an alternative
17 that's required to be analyzed as a baseline under the
18 Superfund program. And would consist of institutional
19 controls, site security, fencing around the impound, and
20 ground water monitoring.

21 The estimated cost is approximately \$300,000 and
22 estimate -- estimated time to implement one month.

23 Alternative two is in place containment, this would
24 consist of excavating impound 16 material, placing this
25 material in impound 15, capping and basically capping impound

1 15 then with a synthetic liner, and a two foot soil cover, so
2 we can re-vegetate the area.

3 This cap would be designed to withstand the effects
4 of any floods that may happen, in this area, and would be also
5 designed in accordance with the requirements for any
6 construction in a flood plain.

7 Also included in this would be ground water
8 monitoring, and regrading and vegetation of the impound 16
9 hole that would be left. Costs for this, 2.7 million, and one
10 year estimated implementation time frame.

11 Alternative three is very similar, with this
12 alternative In-Situ solidification, the binding of the
13 material, would happen for both impounds, and similar to
14 alternative two, consolidation and impound 15 capping with a
15 similar cap. Re-Vegetation of impound 16. And ground water
16 monitoring.

17 This alternative was estimated to be 8.6 million and
18 estimated to take two years to implement.

19 Impound 15 and 16 was recycling alternative, this
20 alternative is contingent upon finding a viable market for
21 this iron oxide material. If this market was identified, this
22 alternative would have consisted of excavation, shipment to
23 the re-use facility, grading re-vegetation of the area, and
24 ground water monitoring.

25 Based on market conditions, this was identified with

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1 identified costs as 8.1 million, and time to implement would
2 be dependent upon the final user.

3 For impound 17 and 18, again four alternatives were
4 identified. First alternative was the no action, limited
5 action alternative. Similar to impounds 15 and 16,
6 institutional control, site security, ground water monitoring,
7 \$300,000 estimated cost, and three months to implement.

8 Alternative two, basically consisted of clearing and
9 grubbing impound 17, then the excavation and solidification of
10 impound 17 material. This material would then be placed up
11 into the impound 8 facility, that I talked about earlier.

12 Upon removal of the material, impound 17 area would
13 be regraded, and basically re-vegetated.

14 Impound 18, there is basically no further action was
15 identified. Current condition, it's a well vegetated area.
16 There was no risk identified associated with impound 18. And
17 as such, only tree maintenance was identified, in which large
18 diameter trees, would be removed, so that the roots would not
19 disrupt the silt and clay liner, underlying this impound.

20 Site security would also be included, and ground
21 water monitoring. Estimated cost 13 and a half million. And
22 implementation time to put in would be a year and a half.

23 Alternative 2A is very similar to alternative two.
24 The only difference is that impound 18 basically would be --
25 I'm sorry. The only difference is impound 17 -- 18 -- impound

1 17 would be graded, or I'm sorry, excavated, solidified and
2 placed in 8.

3 I'm sorry. And then impound 18, instead of no
4 further action, would be capped. Similar to impound 15 and
5 16. This cap would be designed to withstand any flood
6 effects. And design in accordance with the requirements for
7 construction of flood plain.

8 This is -- the cost of this 15.7 million, time to
9 implement, year and a half.

10 Alternative three, is more of a consolidation in
11 place, in which impound 17 and 18 would be grubbed, the top
12 four feet of impound 18 would be strengthened, so that
13 material from impound 17 could then be solidified, and placed
14 on top of 18. This whole impound 18 area would then be
15 capped, graded, and ground water monitoring. Total cost for
16 this 14.1 million, and estimated time frame, four and a half
17 years.

18 3A is a slight variation of this, in which the --
19 all the material in impound 18 would be solidified, and then
20 as with impound 17, and then the consolidation of impound 17
21 into impound 18. Cost, 35.3 million and time to implement,
22 three years.

23 The last alternative was just for comparative
24 purposes, to look at what the cost implications would be if
25 taking the largest impound we're dealing with, and putting it

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1 into the impound 8, waste management facility.

2 This would require also action, by impound 17 to be
3 -- added onto it. But to excavate, solidify the impound 18
4 sludge, place it in impound 8, estimated cost would be 41.7
5 million, time to implement, two years.

6 With these alternatives, we then re-evaluated based
7 on the nine CERCLA criteria and coming up with the
8 recommendations, at this point I'll turn it back over to
9 Haiyesh to present the recommendations for these impounds.

10 MR. SHAH: Based on these studies we performed, and
11 after evaluating various remedial alternatives, for Group II
12 impoundments, and the Hill Property soils, we are recommending
13 the following alternatives as proposed remedy for Group II
14 impoundments and the Hill Property soils.

15 For impoundments 15 and 16, we are recommending
16 alternative two, which includes excavation of impoundment 16.
17 And then placement of excavated material into impoundment 15.
18 Construction of a cap, synthetic liner, and ground water
19 monitoring.

20 For impoundment 17 and 18, we are also recommending
21 alternative two, which includes solidification of impoundment
22 17, and consolidation of the solidified material into the
23 impoundment 8 facility, and limited action for impoundment 18,
24 including fencing, routine maintenance, and ground water
25 monitoring.

1 And for the Hill Property soils, we are recommending
2 no further action, with ground water contamination recovery at
3 the main plant, and ground water monitoring of the Hill
4 Property.

5 We are recommending these alternatives because they
6 satisfy the CERCLA 9 evaluation criteria. And they also meet
7 the CERCLA threshold criteria, as they are -- they will be
8 protective of human health and the environment, they will
9 comply with all applicable state and Federal requirements.
10 they will be cost effective.

11 As part of this remedy, a review will be conducted
12 every five years, to insure that the selected remedy provides
13 adequate protection of human health in the environment. And
14 again, as I said earlier, final site wide remediation program
15 will insure that there is no current or future unacceptable
16 risk, to human health in the environment.

17 With this, we conclude our presentation, and I'm
18 turning it over to Roman Luzecky.

19 MR. LUZECKY: Thank you Haiyesh. I'd also like to
20 recognize council President DeSensio.

21 A SPEAKER: Thank you.

22 MR. LUZECKY: Oh, I'm sorry.

23 A SPEAKER: -- Council President --

24 MR. LUZECKY: I'm sorry.

25 A SPEAKER: That's all right.

1 MR. LUZECKY: If you wish to comment, please come up
2 to the microphone. And state your affiliation, and your name,
3 so that the transcriber can hear you. Have any comments or
4 questions?

5 MR. GERMINE: Good evening, my name is Thomas J.
6 Germine, I'm the Technical Advisor to Crisis, which is the
7 citizens group that has been involved with this Superfund
8 cleanup and has gotten the TAG Grant in connection with the
9 Superfund cleanup of the site.

10 Very briefly, we have concerns principally with the
11 cleanup plan for the four Group II impoundments. We support
12 the proposed plan for the Hill Property, and we don't have any
13 real problem with that.

14 With respect to the Group II impoundments, our
15 principal concern is with the location of the impoundments in
16 the hundred year flood plain, and the fact that though the
17 impoundments are surrounded by berms, that those berms are not
18 high enough and will not be high enough to prevent a 100 year
19 storm events, and of course greater storm events. From
20 causing the impoundments to be covered with water.

21 Therefore, we feel that there is an extra level of
22 care that should be taken, as far as the remediation in this
23 particularly sensitive area. Because of the likelihood of
24 contact, not only with ground water but with river water.

25 We support the feature of the program, that involves

1 the removal and solidification of impoundment 16, and its
2 consolidation or disposal into the impound 8 facility. We had
3 some initial concerns about the two other elements of the
4 plan, namely the consolidation of impoundment 16, into 15.
5 And the containment in place of impoundment 18.

6 Our concerns on that score, were first of all
7 related to the point of the fact that these proposals wouldn't
8 involve leaving a certain amount of contaminated material in
9 the flood plain, which we feel for policy reasons, is
10 undesirable on the face of it.

11 And also, the fact that certain monitoring well
12 results, in the area, were at best ambiguous, as to whether
13 these impoundments individually or jointly were continuing
14 sources of ground water contamination.

15 Our initial response therefore, to the first draft
16 of the proposed plan, was to come back with the suggestion
17 that perhaps all of this material would be better removed from
18 the flood plain area and disposed of into impound 8.

19 After considerable amount of back and forth review,
20 and I have to give thanks to Haiyesh Shah, the Case Manager on
21 this, he was very helpful, and patient with us, in providing
22 information. We came to see that the -- as the consultant had
23 mentioned earlier, the impoundments 15 and 16 are apparently
24 underlaying with a continuous layer that has an impermeable
25 effect and tends to isolate the impoundments from ground.

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1 water.

2 We feel however, nonetheless, that with the location
3 of this in a flood plain, the additional step of
4 solidification -- In-Situ solidification of the contents of
5 impoundments 15 and 16 prior to consolidation, into
6 impoundment 15 would be more desirable.

7 We also note, from review of the proposed plan, that
8 the proposed plan rated, this is alternative three, involving
9 In-Situ solidification. Rated alternative three superior,
10 both in terms of long term effectiveness, and in terms of
11 immobilization of contaminants.

12 We didn't see in that analysis a cost benefit
13 approach. We recognize that there's a substantially higher
14 price tag involved in the solidification process, and that
15 normally under Superfund analysis there would be some
16 consideration given to whether the incremental environmental
17 benefit of the solidification would warrant the additional
18 cost.

19 However, I don't believe that there is analysis in
20 the plan, indicating that there is a negative or adverse cost
21 benefit return on that additional investment, and again, based
22 on the fact that we are dealing with a flood plain area, it
23 may well be that the additional cost given the recognized
24 benefit of solidification in terms of immobilization of the
25 inorganic contaminants, may be a warranted approach.

1 And we would ask that that be reconsidered and that
2 perhaps a cost benefit analysis be undertaken, on that
3 particular point.

4 Turning now to impoundment 18, we recognize the fact
5 that there is a -- an established Ecosystem there, that we as
6 O'Brien and Gere has pointed out this evening, there is an
7 established vegetated community, and well established trees,
8 on that 15 acres. And that it -- from that perspective, is
9 undesirable to disturb the area. Which would be involved in
10 either solidification or capping of that particular portion of
11 the site.

12 Therefore, we are going to support the portion of
13 the plan involved with in place containment, and maintenance
14 of impoundment 18, because we believe that it's worth taking
15 the opportunity and the chance to try and maintain that area,
16 in its current condition.

17 Provided that there be a monitoring protocol which
18 sets out well defined attenuation goals for the monitoring
19 program, and by that I mean, that at the end of five years, if
20 certain well defined reductions in contaminant levels in the
21 wells, downgradient from impoundment 18 are not evidenced,
22 that there would be then a re-evaluation of the remedial
23 design, with consideration given to potentially capping or
24 solidifying if necessary.

25 And that's all, and again I'd like to thank the

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1 department for being very helpful to myself, especially and
2 the to the group, in helping us prepare our evaluation of this
3 plan. Thank you.

4 MR. LUZECKY: Thank you. Your comments are fairly
5 extensive, and I won't attempt to address them today, I do
6 share your concerns about the berms, we have investigated
7 that, we will be including berm evaluation, and reinforcing
8 during the design process.

9 In terms of the cost benefit analysis, we'll include
10 that in the responsiveness summary. We have evaluated the
11 cost differences, an additional six million dollars. With
12 minimal incremental benefit for human health in the
13 environment, but we will address that more specifically so you
14 can look at that.

15 And as far as the defined ground water monitoring
16 program, we do agree with that also, and it also will be
17 included in the record of decision.

18 MR. GERMINE: Roman, if I might ask, in light of the
19 fact that we'll be getting hopefully a cost benefit analysis,
20 would it be possible to extend the public comment period, so
21 that we could respond if we had any comments on the cost
22 benefit approach, or would that take us too long, and I don't
23 know what you're time frame.

24 MR. LUZECKY: The normal time frame under Superfund
25 regulations, is 30 days for public comment period. We have

1 extended this one for 45 days. We can extend it for another
2 15 days, without delaying the project too much. We can
3 probably give you the cost benefit analysis before we do the
4 Record of Decision. We'll attempt to do that for you.

5 MR. GERMINE: Thank you and I do have a written
6 version of the comments which I'll hand you.

7 MR. LUZECKY: Great, thank you.

8 MR. GERMINE: Thank you.

9 MR. SHAH: Yes, we will provide you with an
10 opportunity to comment on our you know, cost benefit and
11 before signing the ROD.

12 MR. GERMINE: Thank you.

13 MR. LUZECKY: Yes.

14 MS. COWALL: My name is Valerie Cowall, and I live
15 in Finnderne and I'd like to say one of the members of Crisis
16 died since we had our last cleanup meeting, she had MS. The
17 last time I spoke with her, she said her doctor told her MS
18 may be caused by Mercury poisoning. She wondered if it came
19 from the contamination in the area. She lived about 300 feet
20 from impound 8.

21 The location of impound 8, has been known to flood,
22 there are pictures indicating during Hurricane Doria, that
23 area was under water. Impound 8 is on Polhemus Lane
24 approximately 50 feet from the road. Polhemus Lane is the
25 only way you can reach the water company, sewerage authority,

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1 trash transfer, and recycling.

2 The residents of Bridgewater line up alongside
3 impound 8 during spring cleanup when they use the trash
4 transfer. You need to address the problem of being able to
5 get in there to clean it up without harming the residents and
6 businesses if it leaks.

7 One of your proposals is to recycle the metal from
8 the compounds to be cleaned up, that to me is the best way to
9 go, but only if contaminants are removed, and no one else's
10 health is in danger. No toxic should be put in impound 8.

11 I realize the DEP is doing its best, I know American
12 Home Products wants the best for their employees and the
13 residents of the area. I pray for a safe solution, I pray for
14 the DEP and American Home Products to find it, and I thank you
15 for your help.

16 I'd also like to add, that there are many smoke
17 stacks at the American Home Products plant now, when they're
18 manufacturing a product, it -- and it's a cloudy overcast day,
19 the plant is covered in a white haze.

20 You can't catch a breath of fresh air. It's like
21 being behind a car with a bad pollution problem, or a smoker,
22 blowing cigarette smoke in your face, and we all know how
23 harmful that is to our health. I would like a printout of all
24 the chemicals being emitted from these smoke stacks, and the
25 effects on our health.

1 American Cyanamid had left American Home Products
2 with a smoky unhealthy operation, and better pollution
3 controls should be put on the smoke stacks now. And I'd also
4 like to know impound 8 what kind of toxic would be put in
5 there now.

6 Is there going to be Mercury, or --

7 MR. LUZECKY: There is no Mercury at the site. All
8 investigation that has been conducted, to date, shows that
9 there's no Mercury contamination at the site. So.

10 MS. COWALL: My main concern is impound 8 is very
11 close to my home, and it just feels like we have a lot of
12 health problems in Finnderne and I know you're trying to
13 address them, and I know you're doing the best, but --

14 MR. LUZECKY: All the waste that goes into impound 8
15 is solidified with some type of cement material, prior to
16 placement.

17 MS. COWALL: I didn't understand that.

18 MR. LUZECKY: And after placement is completed, and
19 the impoundment is full it will be capped. So there will be
20 no exposure to the environment, from that impoundment.

21 MS. COWALL: Thank you.

22 MR. LUZECKY: Thank you for your comments. Yes.

23 MR. DeSENSIO: All right, my name is Frank DeSensio,
24 I'm a Bridgewater resident, I also happen to be a Councilman,
25 the record should reflect that our Council President, Mr.

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1 Harrison left the meeting, because he does not want to have a
2 quorum here, while I make my comments.

3 I wasn't going to say anything tonight, but after
4 listening to Mr. Germiné comment about impoundment 17 and 18 a
5 thought struck me. During the Doria flood, that whole area
6 was under substantial amounts of water. And I know it was
7 nine feet, because I worked there at the time, so my office
8 was under five feet of water, so I know that the problems they
9 had.

10 And I'm a little bit familiar with the use of slurry
11 cutoff walls, and capping for landfills, which are normally
12 above grade, and don't get inundated. And the question that I
13 would have is in your review of the structural integrity of
14 these impounds, if they're going to be used to store the
15 solidified material, are you going to take into account, the
16 hydraulic and stress effects of having the entire site
17 inundated where the cap might be breached, and then the slurry
18 cutoff wall, is in the sense act as a tub. And entrap the
19 water, and prevent it from draining out.

20 And how that would be dealt with, if that were to
21 happen.

22 MR. LUZECKY: We did discuss that, and we did look
23 at it, we've looked at designing spill ways, where if the
24 impoundments are inundated with flood waters, the waters can
25 go over the spill way without compromising the cap, or the

1 berms, and once the flood recedes, the water can then drain
2 from the impoundment. So we have considered that. Thank you.

3 I was also told that it'll be designed for a 500
4 year flood. Hopefully we won't see one.

5 MR. HAMMERSLAG: My name is Pete Hammerslag, and I'm
6 a Bridgewater resident. I'm also a member of Crisis. When
7 you responded to Frank DeSensio, by saying you have considered
8 that, what does that mean, that you have considered it? In
9 terms of implementation?

10 MR. LUZECKY: That we looked into it, to implement
11 that type of design, is what I meant by considered it.

12 MR. HAMMERSLAG: Meaning --

13 MR. LUZECKY: That we thought about it also. Just
14 as you have.

15 MR. SHAH: It's going to be implemented, yes.

16 MR. HAMMERSLAG: It will be implemented?

17 MR. LUZECKY: Correct.

18 MR. HAMMERSLAG: Okay, that's clear. I'd like to
19 follow up on the flooding aspect a little bit, I have two
20 photographs which are photocopies of photographs, so they're
21 not particularly clear. Well, they're fairly clear. They're
22 not as clear as I'd like, they're from a report prepared by
23 the US Geological Survey, in 1972, entitled Floods of August
24 and September 1971, in New Jersey.

25 And this is available at the library. I have taken

1 the liberty of marking many of the impounds in red Flair pen.
2 And they're pretty accurate.

3 I've used a map that I've had, which I think I
4 acquired at one of the last hearings, and I'd like you to take
5 a look at all of the water here, there's no telling
6 particularly where the water has come from, whether it's rain
7 water, or flood water. But we all know how close most -- many
8 of these impounds and particularly the Group II ones, are to
9 the Raritan River.

10 With a copy of the cover page. You could see, on
11 impound 16, impound 15, I think I might have 15 and 16
12 switched on one of those. There's a breach in the berm, and
13 of course this is 25 years ago, I don't know what condition
14 those things are in now. I'd like to think they're in a lot
15 better condition, but you could see lots and lots of water.

16 I wonder if you have seen these kinds of photographs
17 before, and have considered this amount of water, in that
18 area. There were reports at the time, that the Raritan River
19 was 40 feet above its banks, that it was 16 feet above
20 previous flood levels, that American Cyanamid couldn't
21 function for several months, although I'm sure Frank DeSensio
22 was back at work the following week.

23 And that all 150 buildings were flooded. Does
24 anything that I've showed to you, or said to you affect what
25 you have considered up till now?

1 MR. LUZECKY: We are aware of the flooding
2 conditions that occurred in the seventies, no additional
3 material was placed in these impoundments since that time.
4 And they're still standing there today. So they withstood
5 that flood. Those berms will be re-evaluated and re-designed
6 to withstand a 500 year flood.

7 MR. HAMMERSLAG: Okay.

8 MR. SHAH: For impoundments which will remain in 100
9 year flood plain, we would upgrade the berms, surround
10 impoundment 18, and 15, to withstand a 500 year flood.

11 MR. HAMMERSLAG: Okay. Since you're going to be
12 doing that, I won't take issue with your statement that those
13 berms withstood those floods. Because some of them are
14 clearly breached.

15 MR. LUZECKY: I'm not disagreeing that they are --
16 aren't breached, what I'm stating is that the flood occurred
17 and that the berms still exist today.

18 MR. HAMMERSLAG: Okay. Has anybody -- did anybody
19 monitor these berms and the extent of flooding on last month's
20 I believe it was January 19th, flooding, which of course was
21 nothing like that. But --

22 MR. LUZECKY: Yes, I --

23 MR. HAMMERSLAG: -- is a fairly recent maybe small
24 flood.

25 MR. LUZECKY: Yes, those flooding conditions were

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1 monitored by I believe the township health department, Chris
2 Paulson, I believe was out there, during the worst times.

3 MR. SHAH: And Tim Farrell.

4 MR. LUZECKY: And Tim Farrell.

5 MR. SHAH: From American Home Products.

6 MR. HAMMERSLAG: Okay. Maybe afterwards, he could
7 fill us in on what he saw, or they could fill us in on what
8 they say. How did you determine that the clay and silt
9 underlayment under 15 and 16 and 18, but not 17, is
10 continuous? And unbroken?

11 MR. SHAH: Based on subsurface hydro geological
12 data, we had soil borings, through the impoundments, and based
13 on the information we received through that.

14 MR. HAMMERSLAG: Okay, was that a DEP done project,
15 or was it a engineer consultant done project.

16 MR. SHAH: No, consultant -- consultant done project
17 but it was reviewed in full by DEP.

18 MR. HAMMERSLAG: Okay, just out of curiosity, and --
19 impoundment 18, for example, which is 15.4 acres, how many
20 soil borings would you have done in an area that large, to
21 satisfy yourselves that it's continuous?

22 MR. SHAH: Right, I mean we -- I forget the exact
23 numbers and -- and I don't remember from the top of --

24 MR. HAMMERSLAG: Does Mr. Roland know?

25 MR. SHAH: No, because they weren't involved. They

1 are new consultants.

2 MR. HAMMERSLAG: Oh, this was the previous --

3 MR. SHAH: Yes.

4 MR. HAMMERSLAG: -- group.

5 MR. SHAH: Previous consultant. Yes.

6 MR. HAMMERSLAG: Okay.

7 MR. SHAH: I mean, I can get --

8 MR. HAMMERSLAG: You've been very helpful and
9 straight with us, we feel, you're satisfied that it's there?

10 MR. SHAH: Yes. Because I reviewed the information
11 and I think the numbers they used -- I wasn't involved, I did
12 not approve that, because I became Case Manager in 1990. And
13 this was done prior to that, but my Section Chief he was
14 project manager at that time, and subsequently to that, I
15 viewed the information, and I feel -- I feel confident that
16 the numbers they used, is still appropriate.

17 MR. HAMMERSLAG: Would those numbers be available
18 for Mr. Germine to review?

19 MR. SHAH: That is correct. They were included in
20 the CMS/FS report.

21 MR. HAMMERSLAG: Mr. Roland referred to impoundment
22 15, as storing "non-hazardous" iron filings, and such things.
23 My information indicates that there are significant heavy
24 metal contamination, maybe I missed something because I'm not
25 an environmental technical type person, not technical at all.

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1 But I have things such as arsenic, chromium, lead, copper and
2 nickel contamination in that iron oxide material, could you
3 clarify your statement please?

4 MR. ROLAND: Sure. The term hazardous waste is a
5 RCRA defined term, based on specific testing criteria.
6 Although there may be metals present, there are standard,
7 there are threshold levels, which will determine whether it's
8 classified as a hazardous waste, or non-hazardous waste. In
9 this case, that testing found out that it was below the
10 threshold and therefore, classified as a non-hazardous waste
11 material.

12 MR. HAMMERSLAG: Okay, so you wouldn't say that
13 there's nothing dangerous there, but it's not using the
14 technical term, hazardous, didn't quite meet that level. Is
15 that fair to say?

16 MR. ROLAND: Yeah. Yes.

17 MR. HAMMERSLAG: Okay. Somebody mentioned while
18 Mrs. Cowall mention mercury, and a few people said there's no
19 mercury there, I have something that indicates that in
20 impoundment 17 and/or 18, there's 101 parts per million -- oh,
21 here it is. 17 has 101 parts per million, and 18 has 254
22 parts per million, maybe they're not significant hazardous
23 wise of mercury, is that true?

24 MR. SHAH: Cement's in the bottom impoundment they
25 not in impoundment 17 and 18.

1 MR. HAMMERSLAG: Okay. Isn't 17 --

2 MR. SHAH: There is no mercury in impoundment --

3 MR. HAMMERSLAG: -- going to be solidified and put
4 in 8?

5 MR. SHAH: Right.

6 MR. HAMMERSLAG: Okay, so 17 having 101 parts per
7 million, of Mercury, maybe when it's solidified it'll be
8 harmless essentially?

9 MR. SHAH: Right.

10 MR. HAMMERSLAG: But I don't want anybody to feel
11 mislead when I see something that says mercury. There is
12 mercury out there, right?

13 MR. SHAH: Right.

14 MR. LUZECKY: That would be my mistake. When I
15 asked Haiyesh the question, I wasn't clear on his -- I didn't
16 understand his question, or his answer clearly. And I made
17 that statement incorrectly.

18 MR. HAMMERSLAG: Okay, I just wanted to clarify
19 that, to make sure I have correct information and that Mrs.
20 Cowall understood the response to her question.

21 How does a cap avoid flood problems? How does a cap
22 that again, non technically, I would think would go over the
23 top of some of these materials, the term I think used by Mr.
24 Roland was would control flooding or in the flood -- in the
25 flood plain, something about the cap insuring that what's

1 underneath it, doesn't get flooded. Is it in the method of
2 securing to the ground?

3 MR. LUZECKY: Maybe --

4 MR. HAMMERSLAG: Well, could you give us a quick,
5 two second, two minute explanation of how caps deal with flood
6 waters?

7 MR. ROLAND: Sure. The concern on capping in a
8 flood plain, is catastrophic failure, which would lead to a
9 release of the material. The flood study that was conducted,
10 evaluated both 100 and 500 year flood, in determining what the
11 velocity of the water which is the erosional, which is what
12 causes erosion.

13 Was identified that on a 500 year flood, the maximum
14 velocity you're going to see, is approximately 1.8 feet per
15 second of water. So in your cap design, what you would design
16 is a system through vegetative growth, and your synthetic
17 liner. That would be able to withstand that maximum velocity,
18 such that there's minimal to no erosion associated with any
19 flood event.

20 MR. HAMMERSLAG: Okay, so it's erosion, by basically
21 water speed, rather than like infiltration of the flood waters
22 themselves?

23 MR. ROLAND: That's correct.

24 MR. HAMMERSLAG: Is infiltration of the flood waters
25 a problem in this area, being so near to the river?

1 MR. ROLAND: No. Basically right now you have a
2 situation with four impounds that are open, and subject to
3 flooding. And the results of the remedial investigation
4 except for impound 17 identified minimal to no ground water
5 impact, in this area.

6 And what we're looking to do, is basically improve
7 the area, through cap -- consolidation and capping, so that
8 even though we're seeing minimal to no ground water impact
9 now, what we will do will even improve it that much.

10 MR. HAMMERSLAG: What does ground water impact
11 when you're not dealing with a flood?

12 MR. ROLAND: I think the concern is you have sludge,
13 and iron oxide materials. The concern is the release of those
14 materials into the environment. Whether it's through a
15 catastrophic release, such as a breach of a berm, and
16 releasing the material, or a release to the ground water. And
17 I think the cap will be designed so that erosion will not be
18 an issue, it will not cause the catastrophic breach, and that
19 the ground water will only improve with implementation of this
20 remediation, remedial alternatives.

21 MR. HAMMERSLAG: Okay, that's as far as my
22 non-technical questioning lets me go on that one. I'm almost
23 done with my questions. When we -- when you talk about long
24 term monitoring, and long term maintenance, what kinds of
25 terms are you talking about?

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1 MR. LUZECKY: We would evaluate this -- we would do
2 monitoring on a regular basis, for a five year period. Then
3 re-evaluate the results, based on that monitoring, and
4 determine the next course of action.

5 MR. SHAH: Can I --

6 MR. LUZECKY: Sure.

7 MR. HAMMERSLAG: Okay, so it's -- oh, I'm sorry.
8 Did you want to add to that?

9 MR. SHAH: Actual definition for short term
10 monitoring is a five year duration, during the five year we
11 would monitor the ground water on a quarterly basis. And long
12 term monitoring, would include at least 30 year monitoring
13 program.

14 For first five years in the long term monitoring,
15 ground water would be monitored on a quarterly basis, and then
16 would be re-evaluated at the end of the five year period to
17 determine the frequency for the remaining years from five to
18 30. And also the parameters.

19 MR. HAMMERSLAG: So 30 is the long term period?

20 MR. SHAH: Yeah, that's defined in their National
21 Contingency Plan, in Superfund.

22 MR. HAMMERSLAG: Thank you. I read something in the
23 paper about American Home Products wanting to sell the
24 property. I don't know if they're interest in selling the
25 Hill Property separate from the manufacturing property. But,

1 how do they propose to sell the manufacturing property with
2 all of these impoundments that will be ringing three sides of
3 it. Maybe when they get a chance they can answer that.

4 MR. LUZECKY: Pat Welsh from American Home Products
5 is here, maybe she could address it.

6 MS. WELSH: Is there some confusion the American
7 Home would like to sell the Hill Property, but there's no
8 plans at this time at all, to sell the manufacturing property.

9 MR. HAMMERSLAG: Okay.

10 MS. WELSH: So.

11 MR. HAMMERSLAG: Maybe I misunderstood the article.
12 Okay, I think that's all I have, thank you for your responses.

13 MR. LUZECKY: Well, thank you. Does anyone else
14 have any comments?

15 MR. SIMPSKY: My name is Greg Simpsky, and I'm a
16 resident of Finnderne, Bridgewater area there. My first
17 question would be during the excavation of the impound areas,
18 to put the capping and the liners what if any possible
19 contaminants in the air, would be released? That might get
20 quite windy, because these areas here haven't been disturbed
21 through 30 maybe 50 years. So has any consideration been made
22 to anything released in the air.

23 MR. SHAH: Yes. Air monitoring program is part of
24 all of these alternatives, requiring excavation, and
25 installation of cap or any other these kinds of things. We

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1 have completed remediation of impoundment 19, and we have
2 extensive air monitoring program, with a contingency plan and
3 Crisis also reviewed the information, and provided input in
4 development of the work plan for our monitoring also. So we
5 would have -- for this impoundment we would have extensive air
6 monitoring program also.

7 MR. SIMPSKY: Okay, my next question would be based
8 on the condition of the property, below the Hill area, what --
9 it's current commercial viability, based on -- you know, the
10 contaminants and improvements that'll be made in the coming
11 year, is that a judgment made by the township, or is the EPA
12 get involved with it's future usability based on its
13 contamination.

14 MR. LUZECKY: I think the property owner would
15 consider the future use of the site. We are interested in
16 remediating the site. For industrial purposes, or
17 residential. But after that any further development would be
18 up to the property owner.

19 MR. SIMPSKY: And is that all contingent on the
20 changes that are made to the contaminated areas that has a --
21 an effect on what it could possibly be used for?

22 MR. LUZECKY: Well, I'm -- any remedial actions that
23 are -- we're looking for the best protection of human health
24 in the environment, when we select an alternative. We don't
25 look at its commercial viability, per se. I'm certain that if

1 it cost a little bit more to move or treat an impoundment
2 differently, for a future development, that the company would
3 probably do that.

4 MR. SIMPSKY: Okay, thank you.

5 MR. McKEOWN: Hi, my name is Cameron McKeown, I'm a
6 neighbor of the site, in Bound Brook, two things. One,
7 everybody that lives anywhere near the site, knows that
8 there's a lot of activity with off road vehicles, recreation
9 vehicles, big trucks, that takes place south of these ponding
10 areas, and the river.

11 And I'm wondering, I know it's a very difficult
12 thing with the railways there, to try to do something about
13 the -- these vehicles, but I can't believe they're doing any
14 good to the berms, can't believe that it's a great thing that
15 a Superfund site's a recreation area.

16 MR. LUZECKY: Right, and that's one of the main
17 reasons that when we are -- when we evaluated the
18 alternatives, for impoundments 15 and 16 and 17 and 18, we
19 chose to cap them, to minimize or eliminate the exposure to
20 airborne particles, and also to fence that area. It's the
21 best we can do to prevent off road vehicle use.

22 MR. McKEOWN: Well, just as one suggestion, the --
23 apparently DEP issued permits to the water company, to install
24 huge sewers, that run along the Raritan, between Bound Brook
25 and Bridgewater. And the installation of these sewers

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1 required some sort of road improvements that more or less go
2 along the Raritan.

3 These things just function now, as freeways, for off
4 road vehicles. And I must say they -- the lower portion of
5 Middle Brook is being severely impounded, by quite large
6 vehicles. Going up and down the banks, eroding them, seems to
7 me that if DEP took a look at what's going along -- what's
8 happening on the southern side of Bound Brook, to the banks of
9 the Raritan, and what's happening in both Bridgewater and
10 Bound Brook, along the lower regions of Middle Brook, that
11 you'd be very surprised. Unpleasantly surprised.

12 That's just on the other side of 287 there, 287 is
13 over Middle Brook in some parts. Okay.

14 MR. LUZECKY: Okay, we'll look into that, thank you.

15 MR. McKEOWN: Okay, good. And the other thing I
16 wanted to mention is that for people that live in Finnderne
17 and Bound Brook it's -- it's very difficult knowing what we
18 do, about the potential for flood, to conceive that these
19 berms are going to be as safe as reported.

20 I mean it -- we don't say that we're experts in the
21 science of building these things, but just to give you a
22 couple of figures, the flood event that we had in January
23 apparently was a one in ten year event. And there was
24 flooding in parts of what's called the Hill Property here. So
25 on the other side of New Jersey Transit there was some

1 flooding.

2 The flood in '73, which I think was larger than the
3 one in '71, was only an 80 year event, and in terms of our
4 local economy here, that was huge, so to go from that 80 year
5 event, to a 500 so five times as large, or more than five. It
6 would be engineering for quite a catastrophe.

7 MR. LUZECKY: That's right. We are supposed -- we
8 are engineering for 100 -- is it a 100 year or 500 year flood?

9 MR. ROLAND: It would be a 500 year flood.
10 the criteria used in the design. For the berm protection.

11 MR. McKEOWN: All right, and just to follow up on
12 the last person's question about the effect of flood on these
13 berms, do I understand correctly that the only danger from
14 flood is that -- is erosion?

15 That the -- the increased amount of water in the
16 soil, for a very extended period, the flows of waters subsoil,
17 that will be affected by the increased drainage, and stuff,
18 these don't pose any additional dangers, to what we're
19 proposing here?

20 MR. ROLAND: Yeah, that was the aspect of looking at
21 you know, is there infiltration and a leachate generated from
22 that.

23 Currently, you have a situation with all the
24 impounds that during a flooding event, when the pictures
25 indicate here, that the berms have been breached, and they're

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1 filled with water. You basically have a situation where you
2 have a continuous potential source of creation of leachate.

3 What we have found through the studies, is that in
4 an open condition now, we found -- excuse me -- minimal to no
5 impact on ground water, which is where you would see that
6 potential leachate.

7 What we're proposing with this remediation, is to
8 basically create a situation where the flood waters will not
9 openly flow into an impound but rather flow either over the
10 top or around the impound.

11 MR. McKEOWN: Right. Right. But it would seem like
12 there would have to be consideration of a difference in the
13 way contaminants might get into the ground water, through a
14 flood event.

15 That is to say, if you test for leaching, which
16 would be mostly vertical, when there's no flood, right, that
17 would be a different situation, from when the ground is super
18 saturated, and there would be leaching going out sideways,
19 right?

20 MR. ROLAND: In either case, you can end up with
21 basically what's called saturated condition. And then they
22 will -- which means this water impregnated in the materials.
23 And they will stay that way until it drains out, as leachate.

24 But what I can tell you is that the situation now
25 has been identified to have minimal or no impact and then

1 implementation of this program will improve this situation out
2 there. So it will only get better.

3 MR. McKEOWN: Thank you.

4 MR. TUTRONI: John Tutroni, Bridgewater, I have one
5 question. Adjacent neighbor to this property is Elizabethtown
6 Water, are they issued an opinion on the remediation of your
7 current plan?

8 MR. LUZECKY: No they have not.

9 MR. TUTRONI: Do you anticipate to receive one.

10 MR. SHAH: Well, we provided -- they're on our
11 mailing list, and they received this proposal, and we have
12 established a public comment period, and if they have any
13 concerns they will, they can certainly submit their comments,
14 but to date we haven't received any comments from them.

15 But they are fully aware of what's going on at this
16 site, because their site is actually under another DEP
17 program, and last week they called another program, at DEP to
18 say that contamination they had at the property or ground
19 water contamination they had at the property may be remediated
20 by the pumping of -- ongoing pumping of American Home
21 Products.

22 So, I mean, they are fully aware of you know, what's
23 going on at this site, and they are fully aware of this
24 proposal, but they haven't provided any comments to us
25 specifically on this proposal.

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1 MR. TUTRONI: Will you -- do you plan on soliciting
2 them for an opinion.

3 MR. LUZECKY: We can out reach to them one more time
4 to see if they have any comments on the proposed plan.

5 MR. SHAH: Right.

6 MR. TUTRONI: Thank you.

7 MR. SHAH: Welcome.

8 MR. SODEY: May I use the lectern. My name is Walt
9 Sodey, I'm the Executive Director of the Citizens Group
10 Crisis, really more of an Advisor to the Group. We had to
11 give ourselves titles and incorporate when we applied for the
12 Grant. And make it a little more formal.

13 As an Advisor of the Group, I've spent quite a bit
14 of time on these plans, for the last three years, and also
15 quite a bit of time probably even more time, talking to people
16 from the group, as to their feelings.

17 And it's my job to explain in a little bit more
18 detail, why the Group has taken the position its taken, which
19 is in support of our technical advisor, Mr. Germaine's
20 recommendation. The Group formalized that position at a
21 meeting we held on February 6th, by the way. Just for the
22 record.

23 Crisis, I think you would have to agree has been
24 very diligent in not being alarmists, about this project.
25 Which is a factor that I think you sometimes find with

1 environmental oriented groups that are monitoring a particular
2 project of concern.

3 We've tried to be not only reasonable, but we've
4 tried to maintain a good line of communication, with DEP,
5 between these public meetings, because we found out that that
6 approach enabled all of us to come into these meetings much
7 better informed of each other's positions and better able to
8 respond to them.

9 And I also want to commend a job that's been done by
10 this particular section of the Department of Environmental
11 Protection, because they have kept us informed, they've been
12 very responsive. Any time that we've had inquiries to make,
13 and really we have no complaints at all, in that regard.

14 The only things that I have to relate to you are I
15 think a little bit more detail on why our members remain
16 concerned.

17 About some of the factors involved that Mr. Germaine
18 addressed, and why we would not only like to see some of the
19 extra protections, put into your proposed plan, that Mr.
20 Germaine has suggested, but also in one respect where it may
21 even be a benefit to the company itself, to do so.

22 In reviewing these official documents and sitting
23 and listening to comments made in support of the plans at
24 these public meetings, and this goes back to the first one
25 that I think was held in 1991. If I'm not mistaken, almost at

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1 this time of year.

2 Which was really before any plans were proposed, but
3 you were into the feasibility studies, I think it was the
4 impoundment characterization program. Which had been the one
5 that was most recently released then.

6 Then we had the public meeting about two and a half
7 years ago, on the Group I impoundments.

8 If you sit and listen to the comments that are made
9 in support of the plans at those meetings, the impression
10 tends to come across, as though you're saying that there's no
11 real danger from the site.

12 For instance, in using the term non-hazardous, we
13 realize that you're correct. In terms of the definition, how
14 RCRA and how Superfund defines what is hazardous, I guess it's
15 really more RCRA. That some of this material is not
16 hazardous.

17 But at times, that you almost seem to be saying, and
18 I know you're not, that the material is not dangerous. This
19 concerns members of our Group.

20 And it concerns us in terms of some things that come
21 my way, that I initiate and bring to the Group, and it -- and
22 probably more cases, material that the Group brings to me, and
23 calls to my attention. Really is a two way street.

24 And I just like to read a couple of these, and you
25 can interrupt me, after each one if you'd like to comment on

1 them. If you feel that we're misrepresenting anything.

2 But, just to read from one publication of the EPA,
3 it's called setting the record straight, was a response to
4 myths about Superfund, it's dated April 3rd, 1995.

5 I'm just taking one of their facts out of this.
6 "Superfund sites do pose a serious threat to communities,
7 public and economic health and to the environment. Analysis
8 by the Agency for Toxic Substances, and Disease Registry,
9 demonstrates that people are being exposed to hazardous
10 substances, and that illnesses are resulting from these
11 exposures. This includes respiratory illnesses, cancers and
12 immune system effects, birth defects, reproductive disorders
13 and neurological problems."

14 Now, I recognize that this is a blanket statement,
15 they're not talking about this site. This is covering all
16 contaminated waste sites apparently that EPA monitors, and to
17 that extent, it's a somewhat general statement.

18 But it also goes along the lines, and I believe this
19 particular clip was one that I both monitored in the Star
20 Ledger, April 23rd.

21 April 13th, 1993, and members of my Group, were
22 aware of this, and I believe one of them actually attended, it
23 was a US Senate Subcommittee hearing that was held in New
24 Jersey, in Trenton, was chaired by Senator Frank Lautenberg,
25 and at that witnesses presented testimony or I should say

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1 individuals presented testimony, who identified as medical
2 experts.

3 They said that people living near hazardous waste
4 sites, may suffer more health problems than the rest of the
5 public. That according to medical researchers.

6 They cited growing evidence to support a link
7 between releases from waste sites, and a small but increased
8 risk for developing adverse health affects. And so on.

9 If you'd like, I believe I have an extra copy of
10 this, that I can enter into the record, but again, it's a
11 general statement, it's not reflective of any statement that
12 was being made toward this site by any means. And I don't
13 want to represent it as such.

14 I -- I'm only bringing these things up now, to give
15 you better idea why the Group feels that when we propose an
16 extra measure of protection, beyond what the company
17 apparently would like to see, beyond what their Advisors,
18 their environmental consultants would like to see, that we're
19 doing it not so much you know, out of the desire just to spend
20 the company's money, simply for the sake of seeing a more
21 expensive plan implemented.

22 But by virtue of the fact that we feel the extra
23 protection would alleviate fears such as those raised in
24 statements and testimony. Such as these.

25 We also had a point brought up by one of our members

1 at the last meeting, in terms of the company's own posture on
2 this, whether by implementing a plan with a greater degree of
3 protection, while it would cost in some cases, millions of
4 dollars more, wouldn't this give the company some measure of
5 protection against potential future liability, should
6 something go awry, with a plan that's implemented with lesser
7 protections and the company then being exposed to lawsuits, of
8 any nature.

9 Whether it be a Group action, or some other type of
10 action, legal action that might be filed against them?. In
11 some cases, an investment of a couple million dollars up
12 front, could potentially save tens of millions of dollars in
13 legal liability down the road.

14 The only other point that I had in -- the public
15 meeting two years ago, two and a half years ago, was August of
16 '93, on the Group I impoundments, when we had asked for again
17 for a greater measure of protection, that was offered in that
18 plan.

19 We did reach certain accommodations concerning the
20 long range ground water monitoring, and that there was a more
21 specific statement put into the Record of Decision, on the
22 commitment to long term site wide ground water remediation, I
23 believe it is.

24 There was also a suggestion made at that meeting,
25 that in terms of impoundment 8, which the expanded section was

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1 not completed yet. That a bettenite blanket be added to the
2 triple liner.

3 We were told somewhere along the line, that the
4 company had decided to do that, but we never received any
5 notification that that had been done. Or not. Is there
6 anything that --

7 MR. SHAH: It has been done.

8 MR. SODEY: The bettenite blanket does exist then?

9 MR. SHAH: Yes.

10 MR. SODEY: In impoundment 8.

11 MR. SHAH: In the newer cells.

12 MR. SODEY: Okay.

13 MR. LUZECKY: Well, excuse me, I would like to point
14 out that the focus of this meeting is the Group II
15 impoundments.

16 MR. SODEY: Right.

17 MR. LUZECKY: So if you can keep your comments to
18 that, we can handle your other issues and concerns any time,
19 you know, you're welcome to call us.

20 MR. SODEY: Right.

21 MR. LUZECKY: But for the purpose of this meeting,
22 if you can just direct your comments to the Group II
23 impoundments, I'm sure the public and we would certainly
24 appreciate that.

25 MR. SODEY: I did that only because you still you do

1 have one of the impoundments under your recommended remedies,
2 going into the contents of that impoundment.

3 Going into number 8. Which I felt would be a
4 consideration for us, and any further remark we may want to
5 get to, you after the meeting.

6 Also with regards to the concerns that have been
7 raised on flooding. And potential effects on the impoundments
8 in Group II.

9 Has there been any recent delineation of -- I know
10 over time, with development, the flood parameters changed,
11 have there been any updating of the delineation for the flood
12 plain, for the -- for this site, in this region?

13 MR. SHAH: Two years ago, something, when we had --

14 MR. LUZECKY: We'll get you the exact date, but a
15 delineation has been made.

16 MR. SHAH: As part of first evaluation for Group II
17 impoundments, they included a history of flood events, and
18 then flood assessment was conducted.

19 Also the company is required to assess this flood
20 condition as part of their remedial design program for
21 selective remedies, where they going to have to conduct
22 remedial actions in the hundred year flood plain.

23 So, recently for impoundment 19, they submitted
24 stream encroachment permit to DEP, and they had to re-evaluate
25 flood assessment information as part of the application

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1 process, which was done recently, about two years ago.

2 MR. SODEY: Would this show in any of the
3 documentation that we have, or not?

4 MR. SHAH: No, because that's a separate permitting
5 program. But that's public information you know, at DEP, you
6 can review that information.

7 MR. SODEY: So if Mr. Germiné wanted to review that
8 then we could make arrangements. Okay.

9 MR. SHAH: Of course, yes.

10 MR. SODEY: Good, then one final question, in
11 regards to the recommendations that our technical advisor has
12 made, which are supported by our organization, what will the
13 DEP be doing, in response in terms of evaluating our position.

14 MR. LUZECKY: We will be taking all comments that we
15 received today, and consider all of them in the selection of
16 our final remedy.

17 MR. SHAH: And as suggested by Tom Germiné, we will
18 evaluate or will perform cost benefit analysis, for his
19 recommendation in detail, and will present that information
20 for his review, before we select a remedy and finalize the
21 Record of Decision.

22 MR. SODEY: You may have stated it earlier, and I
23 could have missed it?

24 MR. SHAH: Yes.

25 MR. SODEY: Do you have a time that you're

1 estimating a Record of Decision will be published?

2 MR. LUZECKY: Depends on the responses to these
3 comments, and any other written comments that we receive,
4 before the end of the public comment period, so that it
5 depends on the extent of those comments, how long it will take
6 us to finalize the Record of Decision.

7 MR. SODEY: Mr. Germine raised the possibility of
8 extending the public comment period, do you feel Tom, that
9 based on what you've heard that there's a need for the

10 MR. GERMINE: Well, I think it's adequate as
11 has stated, if we have an opportunity to review and comment on
12 the cost benefit analysis, before they finalize the ROD,
13 that's certainly better than even having the opportunity to
14 comments.

15 MR. SHAH: It's on the Record, and then -- we have
16 stated that so I mean, you know is there any reason for
17 extending the public comment period --

18 MR. GERMINE: I don't see that's superfluous.

19 MR. SHAH: We won't sign the ROD, you know, without
20 giving you an opportunity.

21 MR. SODEY: You have nothing else to submit then?

22 MR. GERMINE: I don't have any problem with that.

23 MR. SODEY: Okay, all right, thank you.

24 MR. LUZECKY: Thank you. Any other comments?
25 Questions? In closing, I'd like to reiterate that this

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1 meeting is part of our ongoing community relations outreach
2 program.

3 We have a strong commitment to two way
4 communications with you, and if you have not already done so,
5 please complete our meeting evaluation form, and sign the
6 attendance sheet, so we can include you in the future
7 mailings, regarding this site.

8 After all comments are received, during the public
9 comment period, DEP and EPA will select the remedial
10 alternative. This final selective remedy will be presented in
11 the Record of Decision.

12 Copies of the Record of Decision will be available,
13 and the same repositories listed in the proposed plan, and
14 those are the public library, and the Township Hall.

15 An announcement of the Decision will be sent to
16 everyone on the mailing list, likely this spring or summer,
17 depending upon the number and complexity of the comments that
18 we receive, and must evaluate.

19 If all goes according to plan, the next time you
20 will hear from us, will probably be in the fall of 1996, to
21 discuss that proposed plan, for the Group III impoundments,
22 when we move forward, move towards signing a third Record of
23 Decision for this site.

24 I do want to emphasize that your questions and
25 comments are welcome throughout the remedial action process.

1 . Please -- please direct them to Fred Mumford. Thank you very
2 much.

3 (Meeting adjourned)

4 * * * * *

5 C E R T I F I C A T E

6 I certify that the foregoing is a correct transcript
7 to the best of my ability from the record of proceedings in
8 the above-entitled matter.

9 

10 J & J COURT TRANSCRIBERS
11 BY: PATRICIA C. DUPRE

12 DATED: February 26, 1996
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