Department of Environmental Conservation

Division of Hazardous Waste Remediation

Schatz Plant Site

Operable Unit No. 1—Contaminated Soils
Site Number 3-14-074
Dutchess County, New York

New York State Superfund

Record of Decision

March 1993

New York State Department of Environmental Conservation
MARIO M. CUOMO, *Governor* THOMAS C. JORLING, *Commissioner*

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Schatz Plant Site, Operable Unit 1 - Contaminated Soil, 70 Fairview Avenue, City of Poughkeepsie, Dutchess County, New York - Site ID #314074

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Schatz Plant Site, Operable Unit 1 - Contaminated Soil, developed in accordance with the New York State Environmental Conservation Law (ECL), and is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) 42 USL Section 9601, et. seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Appendix D of this record lists the documents that comprise the Administrative Record for the Schatz Plant Site. The documents in the Administrative Record are the basis for the selected remedial action.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision, present a current or potential threat to public health, welfare or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The major components of the selected remedy are as follows:

- PCB-contaminated soil will be excavated and segregated according to the concentration of contaminants and properly disposed off-site. It is estimated that 3000 cubic yards of soil exceed 50 ppm of PCBs and will be disposed of as hazardous material while 5,200 cubic yards has PCB concentrations less than 50 ppm and will be disposed of in accordance with Solid and Hazardous Waste Regulations. If determined to be acceptable, the contaminated soil with PCB concentrations less than 50 ppm may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. Following excavation and removal, the area will be backfilled with clean soil and seeded. Institutional controls should be implemented by the site owner to restrict potential exposure to residual subsurface PCBs which exceed one ppm.

- Prior to and during construction activities, access to contaminated areas will be restricted (e.g., fencing, locks, etc.) to minimize any potential exposure to contaminants.

- Wastewater generated from any excavation or decontamination activities will be collected and disposed of appropriately; either discharged into a public sanitary sewer or taken to an off-site wastewater treatment facility permitted for treating such waste streams, depending on contaminant concentrations.

- Due to the limited impact of the groundwater from site contamination and the availability of a public water supply to all residences and businesses in the area, no remedial action will be implemented for the groundwater.

DECLARATION

The selected remedy is designed to be protective of human health and the environment, is designed to comply with applicable Federal and New York State Standards, Criteria and Guidance (SCGs) and is cost-effective. The remedy uses solutions which are acceptable to the local community and elected officials.

March 25, 1993
Date

Ann Hill DeBarbieri
Deputy Commissioner
Office of Environmental Remediation

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

I. OBJECTIVE

The Record of Decision (ROD) summarizes the findings of the Remedial Investigation/ Feasibility Study (RI/FS) for the Schatz Plant Site (I.D. #3-14-074) for Operable Unit 1 - Contaminated Soils, and presents New York State Department of Environmental Conservation's (NYSDEC) selected alternative for remediating the contamination problem at this site. Remedial alternatives presented in this ROD will address contamination in the soil and groundwater media.

II. SITE LOCATION AND DESCRIPTION

The Schatz Plant Site (former Schatz Federal Bearing Company) is located at 70 Fairview Avenue in the City and Town of Poughkeepsie, Dutchess County, New York as shown in Figure A-1. The site occupies an area of approximately 20 acres (Figure A-2). The Schatz Plant Site lies on gently rolling land in a mixed industrial and residential area. Several new companies have moved into some of the former Schatz Plant buildings such as AT&T, Sargo, Four Thousand Dye, Acme Caster Company and Schatz Manufacturing Company. A Rehabilitation Center and playground for day care and training of mentally disabled persons are located near the center of the site. A baseball field used by the public is located in the northern half of the site. Adjoining the Schatz Plant property to the south is the Schatz Manufacturing Company, located on about 10 acres of land formerly occupied by the Poughkeepsie Foundry. The area south of the site is primarily industrial. Residential areas are located to the north and east. A residential area and medical facilities exist on the western side of the railroad tracks.

III. SITE HISTORY

In December 1908, the Schatz Manufacturing Company was incorporated and on August 8, 1909, ground was broken by the Schatz Manufacturing Company for its first plant. On March 10, 1910 the factory was put into operation employing approximately 75 people. The principal articles manufactured at that time consisted of a general line of hardware specialties, mechanics tools, sheet metal stamps, ball bearing casters, special ball bearings, machinery and tools.

In 1912, annular ball bearings were developed for commercial use and were in immediate demand. In December 1915, the Schatz Federal Bearings Company, Inc. (formerly Schatz Manufacturing Company) was organized to manufacture high grade annular ball bearings. The first Federal Bearings Plant was completed early in 1916. The plant size was increased in 1920 and again in 1926 with the addition of a chemical and physical laboratory.

In 1934, the Schatz Federal Bearing Company employed 700 people. The business grew rapidly and employment reached 1,200 people by 1950. Maximum production occurred during the years of 1942-1960, then began to decline in 1967. In 1960, Schatz acquired the Poughkeepsie Foundry directly south of the original plant site. The company filed for bankruptcy in 1980 and closed in 1981. In 1983, the Schatz Manufacturing Company name was bought by Walter Pomeroy and manufactures bearings in the old Poughkeepsie Foundry plant to the south.

After liquidation, the Schatz Plant Site property was acquired by 1929 Associates, Pleasant Valley Finishing Company, and Fairview Lithographic Company. The Schatz Plant Site was purchased in January 1988 and is presently owned by Lot Six Realty Corporation, with the

exception of a two acre parcel owned by AT&T. Active businesses and industries at the Schatz Plant Site presently include Acme Caster Co., AT&T, Four Thousand Dye Company, Rehabilitation Programs, Inc., Sargo, Taconic Vehicle Maintenance, and Schindler. Two of the original Schatz Buildings, No. 2 (heat treatment building) and No. 3 are unoccupied.

Since May 1986, NYSDEC has identified numerous 55-gallon drums, electrical capacitors and quenching pits within the on-site vacant buildings which contain PCBs, VOCs, semivolatile organic compounds (SVOCs) and PAHs. Floor wipe samples from the vacant buildings detected significant concentrations of PCBs. This property was the subject of an interim remedial measure (IRM) by DEC for removal of PCB-laden capacitors, and 55-gallon drums.

The Schatz Plant waste materials were disposed at an off-site landfill beginning in 1948 and continuing through 1973. The landfill, located about 1.7 miles east of the Schatz Plant, has been the subject of a separate NYSDEC RI/FS and Remedial Design Study (Schatz Federal Bearing Site, 3-14-003). The landfill site contains Schatz wastes including cutting oils, lubricants, grinding sludges, solvents, coolants, and metal parts. The Schatz landfill soils contained elevated levels of chlorinated solvents and other volatile organic compounds (VOCs), polyaromatic hydrocarbon compounds (PAHs), poly-chlorinated biphenyls (PCBs) and metals.

IV. CURRENT SITE STATUS

In February 1991 a work assignment was issued to Engineering-Science (E-S), a Liverpool, New York based engineering firm, to conduct a Remedial Investigation/Feasibility Study (RI/FS) on the Schatz Plant Site. Guidelines for the investigation were established based upon the draft October 1988 United States Environmental Protection Agency (EPA) document, Guidance for Conducting Remedial Investigations and Feasibility Studies Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The primary objectives of this study are:

Remedial Investigation (field data):

- Assess the nature, extent and the source of contamination.
- Evaluate the groundwater flow conditions and groundwater quality in the overburden and bedrock.

Feasibility Study (cleanup alternatives):

- Assess the risk to public health and to the environment.
- Develop and select a cost-effective, environmentally sound, remedial action to correct the problems.

Fieldwork was conducted in two phases. The Phase I investigation was conducted from July, 1991 to December, 1991 and a Phase II Investigation from January, 1992 to July, 1992. Extensive sampling was carried out on all media, including groundwater, soil, waste, building surfaces and air, both on-site and at adjacent properties. In addition, an aerial photographic study was conducted to help define the exact locations of potential waste disposal areas. The results of the RI/FS identify several contamination problems:

Contaminated Soils

North Field

This two-acre open field, north of Irving Avenue (Figure A-2), was determined to be a waste disposal area. Identification of an area of patchy vegetation or bare ground littered with machine parts resulted in an extensive subsurface investigation. Significant oil-stained soil and waste was discovered which, upon sampling and analysis, revealed low levels of PCBs (up to 11 ppm), VOCs (up to 16 ppm), SVOCs (up to 19 ppm) and several metals including lead, chromium, and iron which exceeded normal ranges for typical soils in this area.

Western Property Boundary

Subsurface soil samples collected west of Schatz Building #2 and the Taconic Building (Figure A-2) showed evidence of oil staining. Analytical results from samples collected in this area showed a minor occurrence of SVOCs (up to 26 ppm), PCBs (up to 6.5 ppm) and elevated levels of metals. One sample contained high levels of lead (55,900 ppm).

Boundary Area

Oil-stained soil was discovered at the fenced boundary between the Schatz Plant Property and the Schatz Manufacturing Company Property. Extensive soil sampling of this area was conducted at depths down to one foot and revealed PCB contamination at levels up to 210 ppm in a one-half acre area. Conservative volume estimates, assuming contamination down to the maximum bedrock depth of 16 feet, indicate up to 8200 yd^3 of soil exceeding 10 ppm (including surficial soil, 0-1 foot, exceeding 1 ppm). Of this 8200 yd^3, 3000 yd^3 are expected to exceed 50 ppm.

Rehabilitation Center Playground

Contamination in the playground area was limited primarily to SVOCs in shallow soils. Levels up to 22 ppm were found at the northern end of the playground.

Other Contaminated Soil Areas

SVOC contamination (481 ppm) was found under a weathered drum at the south end of the investigation area. Chromium was detected above the upper limit of the background range for NYS soils (40 ppm) in numerous samples throughout the Schatz Plant Site and on the Schatz Manufacturing Company Property.

Groundwater

Toluene was found in the groundwater at a concentration of 9 ppb in one sample downgradient of this site. This is slightly above the NYS groundwater standard of 5 ppb. In addition, manganese (up to 5200 ppb) and arsenic (up to 7.6 ppb) were present in groundwater, however, neither of these inorganics can be attributed to an on-site source.

Contaminated Building Surfaces

Extensive contamination (predominately PCBs) were found in numerous floor wipe and floor drain samples collected within Buildings #2 and #3 and the Rehabilitation Center (Figure A-2). Levels ranging up to 30,400 ug/m^2 from wood and cement floor wipe samples were detected. PCBs (up to 45 ppm) and SVOCs were found in sediment from floor drains in Building #3. Floor sweepings from Building #3 detected PCBs at concentrations up to 350 ppm.

Table 1 (below) is a list of contamination levels for the primary contaminants or indicator chemicals (those contaminants which pose the greatest public health and environmental concern for a particular site) in groundwater, soil/waste and surface wipe samples at the Schatz Plant Site along with the associated cleanup levels or SCGs (NYS Standards, Criteria and Guidelines).

TABLE 1

Contaminant	Media[1]	Detected Range	Representative Conc.[2]	Cleanup Guidelines	
				A[3]	B[4]
Antimony	Soil	6-3510	15	1	30
Arsenic	Soil	1-80	11	7.5	80
	Water[5]	7.6	<1	25	25
Benzene	Soil	.04-.58	.08	.06	24
Benzo(a)pyrene	Soil	.05-47	1.2	.06	.06
Chromium	Soil	11-5140	263	17	400
Cyanide	Soil	1-285	<1	1	2000
Lead	Soil	6-55900	68	70	250
Manganese	Water	12-5210	1000	300	N/A
Naphthalene	Soil	.04-23	0.8	13	300
Polychlorinated Biphenyls	Soil[6]	.04-210	4	10/1	10
	Wipe	7-30400	3100	100	N/A
Toluene	Water	1-9	1	5	N/A
Zylene	Soil	.006-14	0.4	1.2	20,000

[1] Units for soil-ppm, water-ppb, wipe-ug/m^2
[2] The representative concentration is the concentration level within the detected range that would most likely be encountered
[3] Values based on NYSDEC/Division of Hazardous Waste Remediation TAGM #4046 (11/92)
[4] Values are USEPA Health-Based Standards (HEAST)
[5] Only one groundwater sample had detectable levels of arsenic
[6] Guidance value for surface soils (0-1 foot) is 1 ppm and subsurface soils (>1 foot) is 10 ppm
N/A - Not Available

Public Health and Environmental Assessment - Contaminated Soils and Groundwater

A risk assessment was conducted to determine whether the contaminated soils found at the Schatz Plant Site could pose a significant threat to human health or the environment. Carrying out a risk assessment requires identification of the following:

- Contaminants of potential concern at the site and an evaluation of their toxicity
- Potential pathways of exposure, potentially exposed populations and risks associated with exposure

For risks associated with exposure to noncarcinogenic contaminants, the "Hazard Index" approach is used which is the ratio of predicted exposure levels to acceptable exposure levels. A Hazard Index greater than one (1) indicates that adverse noncarcinogenic effects may occur.

For carcinogenic contaminants, risks are calculated based on the frequency of exposure, contaminant concentrations and toxicity of contaminants. Risk is expressed as the number of cancers developed as a result of exposure to site contaminants per exposed population.

The primary contaminants of concern, along with their concentrations, are presented in Table 1. A detailed description of all contaminants present at this site can be found in the RI/FS. Potential pathways of exposure associated with the soil contamination have been identified as follows:

- Ingestion and dermal contact with site groundwater
- Ingestion and dermal contact with surface and subsurface soils

Noncarcinogenic Risk

The overall hazard index for current and hypothetical future residents is 1.4 and 3.0, respectively. This exceeds the USEPA target index of 1, indicating that the potential exists for adverse noncarcinogenic health effects from repeated, long-term exposure to soils. The chemicals responsible for these hazards include arsenic and chromium. Groundwater had a noncarcinogenic health threat (Hazard Index = 1.3) due to manganese and arsenic. However, since all area homes and businesses are provided with public water, exposure to contaminants in groundwater is not expected. In addition, neither manganese nor arsenic are attributable to the site and arsenic was present in only one sample at 7.6 ppb, well below the NYS Class GA standard of 25 ppb and the NYSDOH public drinking water standard of 50 ppb. Toluene was present in one sample of groundwater at 9 ppb, slightly exceeding the groundwater standard of 5 ppb. Again, because area residents are served by public water, exposure to toluene in groundwater is not expected.

Carcinogenic Risk

The overall carcinogenic risk for current and hypothetical future residents is two-in-one thousand (2/1,000). This risk exceeds the USEPA target risk range and is primarily due to repeated, long-term exposure to PCBs in dust and debris on the floor of Building No. 3, to PCBs, benzo(a)pyrene and arsenic in on-site soil and to arsenic in groundwater.

V. ENFORCEMENT STATUS

NYSDEC began negotiations in 1987 with the current owner and potentially responsible party (PRP), Mr. Stanley Schutzman, to conduct sampling of soil, waste, water and building surfaces at the site. The PRPs results showed PCBs to be prevalent at the site. In 1989, additional negotiations were conducted with the PRP to carry out a removal action of PCB-contaminated waste materials. The PRP declined to conduct this work and signed a stipulation agreement in October, 1990 authorizing NYSDEC to conduct a State-funded RI/FS and interim remedial measure (IRM). On October 10, 1990, the New York State Division of Environmental Enforcement (DEE) referred the site to the Division of Hazardous Waste Remediation (DHWR) to conduct this work.

VI. GOALS FOR REMEDIATION

The alternatives under consideration for remediation of the Schatz Plant Site, including the NYSDEC selected alternative, must be in accordance with the New York State Environmental Conservation Law (ECL) and consistent with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 USL Section 9601, et.seq., and as amended by the Superfund Amendment and Reauthorization Act of 1986 (SARA). The goal of the Feasibility Study is to select alternatives which meet the following seven screening criteria:

Overall Protection of Human Health and the Environment

This criterion will provide a final check to assess whether each alternative provides adequate protection of human health and the environment. The overall assessment of protection draws on the assessments conducted under other evaluation criteria, especially long-term effectiveness and permanence, short-term effectiveness and compliance with applicable standards.

Evaluation of the overall protectiveness of an alternative will focus on whether a specific alternative achieves adequate protection and will describe how site risks posed through each pathway being addressed by the FS are eliminated, reduced, or controlled through treatment, engineering, or institutional controls. This evaluation will allow for consideration of whether an alternative poses any unacceptable short-term or cross media impacts.

Compliance with New York State Standards, Criteria and Guidelines

This evaluation criterion will be used to determine whether each alternative will meet all identified federal and state requirements. The detailed analysis will summarize which requirements are applicable, relevant, and appropriate to an alternative and describe how the alternative meets these requirements.

Long-Term Effectiveness and Permanence

The evaluation of alternatives under this criterion will address the results of the remedial action in terms of the risk remaining at the facility after response objectives have been met. The primary focus of this evaluation will be the extent and effectiveness of the controls that may be required to manage the risk posed by treatment of residuals and/or untreated wastes. Such an evaluation is particularly important to all alternatives.

Reduction of Toxicity, Mobility, or Volume through Treatment

This evaluation criterion will address the regulatory preference for selecting remedial actions that employ treatment technologies which permanently and significantly reduce the toxicity, mobility, or volume of the contaminants. This preference is satisfied when treatment is used to reduce the principal risks at a site through destruction of contaminants, for a reduction of total mass of contaminants, to attain irreversible reduction in mobility, or to achieve reduction of the total volume of contaminated media.

Short-Term Effectiveness

This evaluation criterion will address the effects of the alternatives during the construction and implementation phase until remedial response objectives are met. Under this criterion, alternatives will be evaluated with respect to their effects on human health and the environment during implementation of the remedial action.

Implementability

The implementability criterion will address the technical and administrative feasibility of implementing an alternative and availability of various services and materials required during its implementation.

Cost

Detailed cost analysis of the selected remedial alternatives will include the following steps:

- Estimation of capital, operations and maintenance (O&M), and institutional costs;
- Present worth analysis.

Costs developed during the FS are expected to provide an accuracy of +50% to -30%

VII. SUMMARY OF THE EVALUATION OF ALTERNATIVES

This Record of Decision (ROD) will be limited to evaluating remedial alternatives which apply to the contaminated soil. In addition, no remedial actions will be implemented with respect to the groundwater due to the limited impact from the site associated with this contamination. Also, a public water supply serves all residences and businesses in the area.

A. Initial Screening of Alternatives

The initial screening process compares and contrasts remedial alternatives based on two of the seven above described screening and evaluation criteria: effectiveness and implementability. Seven (7) remedial alternatives were considered for the Schatz Plant Site Contaminated Soil Area prior to initial screening. This list excludes technologies which were considered inappropriate and infeasible at the onset of the screening process. The reasons for eliminating these technologies are covered in detail in the Feasibility Study.

The seven (7) alternatives retained for consideration are numbered to correspond with the RI/FS report and are as follows:

Contaminated Soil Alternatives

1. No Action/Long-Term Monitoring;
2. Capping/Long-Term Monitoring;
3. Excavation/On-Site Solvent Extraction/Off-Site Disposal;
4. Excavation/On-Site Thermal Desorption/Off-Site Disposal;
5. Excavation/On-Site Incineration/Off-Site Disposal;
6. Excavation/Off-Site Incineration/Off-Site Disposal;
7. Excavation/Off-Site Disposal

Of the seven alternatives under consideration, only alternatives #3 (Excavation/On-Site Solvent Extraction/Off-Site Disposal) and #4 (Excavation/On-Site Thermal Desorption/Off-Site Disposal) failed the initial screening process because they do not meet the implementability criteria and will not be evaluated further. All others will be retained for detailed evaluation.

Those wishing to learn more about the initial screening process and the specific reasons for retaining or rejecting the above alternatives are encouraged to review the RI/FS.

B. Description of Alternatives Retained From Initial Screening

Alternative 1 - No Action/Long-Term Monitoring

No remedial action would take place under this alternative. If this option was followed, the contaminated soils would remain the same as they are at present. Long-term monitoring consisting of periodic site inspection, and groundwater sampling would be conducted to ensure that site conditions did not deteriorate. Health risks associated with ingestion, inhalation or dermal exposure to elevated organic (including PCBs) and inorganic contamination would continue to exist as no efforts would be made to remove or treat these constituents. Therefore, this alternative for site remediation would not be considered effective in protection of human health. As this alternative requires no action, it is readily implementable and would satisfy the short-term effectiveness criterion.

Alternative 2 - Capping/Long-Term Monitoring

This alternative would consist of the installation of a clay and topsoil cap or concrete cap over the area with PCB contamination in excess of 10 ppm. Surficial soil contaminated with PCBs at concentrations between 1 and 10 ppm and metal-contaminated soils would be consolidated into this area. The clay cap would include 18 inches of low permeability clay and 6 inches of topsoil seeded and mulched. A multi-layered hazardous waste cap was considered an excessive remedial measure during screening of capping technologies, as the total area of soil containing PCB contamination in excess of 10 ppm was relatively small (approx. 0.2 acres).

The clay or concrete cap would prevent the public from direct exposure to and inhalation of the PCB and metal-contaminated soil and dusts. Therefore, with limited maintenance, e.g. cap crack repairing and erosion control, the cap would provide long-term effectiveness. Based on the existing groundwater monitoring data, groundwater contamination due to leaching is not expected to be a concern. Alternative 2 would meet the short-term effectiveness criterion by providing some dust control such as wetting the ground surface during cap installation. However, the contamination would remain unchanged, and this alternative would restrict long-term land usage. Also, this option will alter the existing topography. This alternative is technically and administratively feasible. The materials, services and technologies required to implement Alternative 2 are readily available.

Alternative 5 - Excavation/On-Site Incineration/Off-Site Disposal

Alternative 5 consists of (1) excavation to remove all soils with PCB contamination in excess of 10 ppm, surficial soils (0-1 foot) in excess of 1 ppm and soils with elevated levels of metal contamination, (2) on-site incineration of soils with PCB contamination in excess of 50 ppm, (3) Remaining soil will be disposed of off-site in accordance with Solid and Hazardous Waste Regulations, and (4) backfilling the excavation with clean fill and/or incinerator ash.

The contaminated soils would be removed by conventional earth moving technology. Contaminated soil with PCB concentrations less than 50 ppm and elevated levels of metals would be disposed of off-site in accordance with Solid and Hazardous Waste Regulations. The volume of soil to be taken off-site is estimated to be 5200 yd^3. If determined to be acceptable, this contaminated soil may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. The remaining soil which exceeds 50 ppm PCB, estimated at 3000 yd^3, would be incinerated on-site using a small portable incinerator.

Small mobile incineration systems are reliable, effective and well established for incinerating PCBs and other organic contaminants in soil. Emissions from thermal destruction would be treated through the use of air pollution control equipment to attain required air emission standards. The excavated soils would be placed at a temporary staging area which would be constructed using an impermeable liner and cover. Incineration of all contaminated soil at the site would require less than three months to complete at an anticipated processing rate of 2 to 5 tons per hour.

The excavated area would be backfilled with incinerator ash and/or clean-fill transported from a borrow site. Contaminated wastewater from excavation activities may have to be discharged to a sanitary sewer or an off-site wastewater treatment facility permitted for receiving or treating such waste streams. It is expected that the quantity of this water would be small based on the soil conditions (e.g., fine grained).

This alternative would be protective of human health and the environment as all contaminated soil with PCBs exceeding 50 ppm would be treated using on-site thermal destruction technology, thus destroying the PCBs. The remaining contaminated soils would be safely contained off-site. A health and safety plan would be followed during excavation and transportation to control dust and spills. Thus, both the short-term and long-term effectiveness criteria would be met. Alternative 5 is both technically and administratively implementable.

Alternative 6 - Excavation/Off-Site Incineration/Off-Site Disposal

Alternative 6 consists of (1) excavation to remove all soils with PCB contamination in excess of 10 ppm, surficial soils (0-1 foot) with PCBs in excess of 1 ppm and metal-contaminated soils, (2) off-site incineration of all soil with PCB contamination in excess of 50 ppm, (3) off-site disposal of the remainder of the excavated soil in accordance with Solid and Hazardous Waste Regulations, and (4) backfilling the excavation with clean fill.

The contaminated soils would be removed by conventional earth moving technology. It is estimated that the total amount of soil to be excavated would be 8200 cubic yards (assuming a depth to top of bedrock of 16 feet in the area of PCB contaminated soil). Of this volume, roughly 3000 cubic yards with PCBs in excess of 50 ppm would be classified as hazardous and transported and incinerated off-site. The remaining 5200 cubic yards of soil would be disposed of in an off-site landfill in accordance with Solid and Hazardous Waste Regulations. If determined to be acceptable, this remaining contaminated soil may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. Backfill for the excavated area would be transported from a borrow pit. Contaminated wastewater would be discharged into a public sanitary sewer or taken to an off-site wastewater treatment facility permitted for treating such waste streams, depending on contaminant concentrations. It is expected that the quantity of this wastewater would be small based on the soil conditions (e.g., fine grained).

This alternative would be protective of human health and the environment as all known contaminated soil would be safely contained or treated off-site. A health and safety plan would be followed during excavation and transportation to control dust and spills. Thus, both the short-term and long-term effectiveness criteria would be met. Alternative 6 is both technically and administratively implementable.

Alternative 7 - Excavation/Off-Site Disposal

Alternative 7 consists of (1) excavation to remove all soils with PCB contamination in excess of 10 ppm, surficial soils (0-1 foot) with PCBs in excess of 1 ppm and soils with elevated metal contamination, (2) off-site disposal of the excavated material in accordance with Solid and Hazardous Waste Regulations, and (3) backfilling the excavation with clean fill.

The contaminated soil would be removed by conventional earth moving technology. The excavated soils would be transported to off-site landfills for disposal without treatment. It is estimated that the total amount of soil to be excavated could be 8200 cubic yards (assuming a depth to bedrock of 16 feet in the area of PCB-contaminated soil). Of this volume, roughly 3000 cubic yards exceed 50 ppm of PCBs. The remaining 5200 cubic yards of soil contains less than 50 ppm of PCBs as well as elevated levels of metals. Soil taken from the areas with contamination in excess of 50 ppm of PCBs would require disposal in a landfill permitted for hazardous waste. The remainder of the excavated soil would be disposed of off-site in accordance with Solid and Hazardous Waste Regulations. If determined to be acceptable, the remaining contaminated soil may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. Backfill for the excavated area would be transported from a borrow pit. Contaminated wastewater from excavation activities may have to be discharged to a sanitary sewer or taken to an off-site wastewater treatment facility permitted for receiving or treating such waste streams. It is expected that the quantity of this wastewater would be small based on the soil conditions (e.g., fine grained).

This alternative would be protective of human health and the environment as all contaminated soil would be safely contained off-site. A health and safety plan would be followed during excavation and transportation to control dust and spills. Thus, both the short-term and long-term effectiveness criteria would be met. Alternative 7 is both technically and administratively implementable.

C. Detailed Analysis of Alternatives

In this section, the relevant information for the selection of a remedy is presented. Each of the alternatives retained by the screening process for the contaminated soil is evaluated with respect to the seven criteria specified on Pages 6 and 7. These criteria encompass regulatory requirements and include other gauges of the overall feasibility and acceptability of remedial alternatives.

A detailed analysis of all remedial alternatives presented in the previous section (Initial Screening of Alternatives) is presented in the RI/FS and only the costs for each alternative are presented here in Table 2 (below). Those wishing to learn more about the Final Screening process, including the quantitative alternative evaluation scoring method outlined in TAGM #4030, are encouraged to read the RI/FS.

TABLE 2

Remedial Alternative		Present Worth *
1.	No Action/Long-Term Monitoring	$ 81,000
2.	Capping/Long-Term Monitoring	412,000
5.	Excavation/On-Site Incineration/Disposal	4,446,000
6.	Excavation/Off-Site Incineration/Disposal	5,401,000
7.	Excavation/Off-Site Disposal	3,000,000

* Figures include capital costs, operation and maintenance costs and are based on a 30-year period.

D. Selection of the Remedial Alternative

The selected remedial action for the Schatz Plant Site is Alternative #7, Excavation and Off-Site Disposal. A summary of the cost associated with this alternative is presented in Table 3. A detailed cost breakdown for the selected alternative is presented on Page A-3.

TABLE 3

Estimated Cost for Recommended Alternative
Contaminated Soil
Alternative #7 - Excavation/Off-Site Disposal

Description		# Units	Total Cost
MOBILIZATION/DEMOBILIZATION			$ 7,000
SITE PREPARATION			$ 197,910
EXCAVATION AND LOADING		8200 CY	$ 32,800
SAMPLING AND TESTING		77 Samples	$ 32,400
PERIODIC AIR MONITORING			$ 12,500
OFF-SITE DISPOSAL/TRANSPORTATION		8200 CY	$1,966,500
BACKFILL MATERIAL AND PLACEMENT		8200 CY	$ 48,391
CONTRACTOR'S MEETING AND REPORTS			$ 10,000
SUBTOTAL CAPITAL COSTS			$2,307,500
	Engineering 10.0%		$ 230,750
	Contingency 20.0%		$ 461,500
TOTAL CAPITAL COSTS			$2,999,751

Based on an evaluation of existing data, this remedial alternative, when compared to the other alternatives evaluated, best meets the response objectives as outlined in the RI/FS and best satisfies the seven screening criteria, meeting the NYS Superfund objective of protecting human health and the environment.

E. Detailed Assessment of the Selected Alternative

As part of the Final Screening of Alternatives, the selected alternative was assessed based on the seven previously described criteria on Pages 6 and 7 including:

1. Overall protection of human health and the environment;
2. Compliance with New York State Standards, Criteria and Guidelines;
3. Long-term effectiveness and permanence;
4. Reduction of toxicity, mobility, or volume;

5. Short-term effectiveness;

6. Implementability; and

7. Cost.

The following section provides a technical discussion of the selected alternative as well as an assessment of this alternative with respect to these seven screening criteria. This discussion also includes a comparison of the selected alternative with the other remedial alternatives which were considered but not selected. Those wishing to learn more about how all remedial alternatives compared based on these screening criteria are encouraged to refer to the RI/FS report.

Contaminated Soil Alternative #7 - Excavation and Off-Site Disposal

Alternative 7 consists of (1) excavation to remove all soils with PCB concentrations in excess of 10 ppm, surficial soils (0-one foot) over one ppm and soils with elevated metal concentrations, (2) off-site disposal of the excavated material in accordance with Solid and Hazardous Waste Regulations, and (3) backfilling the excavation with clean fill.

The contaminated soil will be removed by conventional earth moving technology. To minimize cross contamination, the hazardous soil (with PCB concentration over 50 ppm) will be excavated first. The hazardous material will be transported to and disposed in a landfill permitted for hazardous waste disposal. The non-hazardous soil will then be removed. This soil will be disposed in accordance with Solid and Hazardous Waste Regulations. If determined to be acceptable, the non-hazardous contaminated soil may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. Wastewater generated from soil draining after excavation will require disposal. If the contaminant concentrations are within applicable limits, the wastewater could be discharged into a public sanitary sewer. Otherwise, the wastewater will have to be discharged to an off-site wastewater treatment facility permitted for receiving or treating such waste streams. Clean fill will be transported from a nearby borrow site to restore this area back to grade. Following remediation, institutional controls should be implemented by the site owner to prevent future disturbance of and potential exposures to any subsurface soils where PCB concentrations exceed one ppm.

Alternative 7 is evaluated with respect to the seven criteria as follows:

Overall Protection of Human Health and Environment

Alternatives 2, 5, 6 and 7 offer protection to both human health and the environment as they offer means of containing (Alternatives 2 and 7) or treating (Alternatives 5 and 6) the contamination. Therefore, potential exposure to the contaminants is minimized. The No Action alternative may impact the environment over time.

The selected alternative (#7) will provide overall protection of human health and the environment. All of the known subsurface soils with PCBs over 10 ppm, surficial soils (0-one foot) with PCBs above one ppm and soils with elevated levels of metals will be removed and disposed off-site. Potential exposure to contaminants via the air and soil routes will be significantly reduced by the excavation and disposal technologies. Institutional controls should be implemented by the site owner on those subsurface soils with residual PCB contamination exceeding one ppm.

Compliance with New York State Standards, Criteria and Guidance

All alternatives to remediate the contaminated soils would meet the action-specific SCGs. No location-specific SCGs would be triggered by any of the alternatives. Alternatives 5, 6 and 7 would meet chemical-specific SCGs for soil and air exposures by treating or disposing the waste soil off-site. Alternative 2 would cap the waste so chemical-specific SCGs would be of little risk concern. The No Action alternative would not meet the chemical-specific SCGs for soil exposure. For the chemical-specific SCGs for groundwater, there is little risk concern as previously described. Therefore, groundwater chemical-specific SCGs are considered met by all alternatives.

The selected alternative (#7) will comply with all the soil and air (dust) SCGs. Several action-specific SCGs concerning the handling and disposal of waste materials will apply to this alternative, including TSCA, RCRA and New York State regulations specifying transportation and disposal performance standards, monitoring and closure. These action-specific SCGs will be met by this alternative based on the removal of all known soils with PCBs over 10 ppm, surficial soils (0-1 foot) with PCBs above one ppm and soils with elevated levels of metals. OSHA regulations and safety requirements will be followed during the remedial activities.

Long-Term Effectiveness and Permanence

Alternatives 1 and 2 are not very effective at providing long-term protection to human health and environment. Operation and maintenance requirements would be comparable for both alternatives. Alternatives 5, 6 and 7 are effective means of ensuring long-term protection to both human health and the environment, because all of the contaminated soils would be treated or excavated and properly disposed off-site.

The selected alternative (#7) significantly reduces the mobility of contaminants by off-site landfilling. With the exception of residual PCB contamination in subsurface soils (between 1 and 10 ppm), this remedial action is a permanent remedy because contamination is removed from the site. Potential exposure pathways (e.g., ingestion and inhalation) will be controlled by the soil removal and disposal technologies. No operation, maintenance and monitoring at the site will be required following implementation of Alternative 7 as potential exposure pathways will be safe to the public health and environment. However, institutional controls should be implemented by the site owner which would restrict potential exposure to residual subsurface PCBs which exceed one ppm.

Reduction of Toxicity, Mobility or Volume

Alternatives 2 and 7 would reduce mobility by providing isolation and preventing direct exposure to contamination by humans or the environment by capping over the contaminated area and excavating and disposing off-site, respectively. However, toxicity and volume of the contaminants in the soil are not reduced. Alternatives 5 and 6 offer a means of reducing toxicity, mobility and volume of contamination as all hazardous soils would be destroyed by incineration. The No Action alternative does not reduce the toxicity, mobility or volume of hazardous soil at the site.

Off-site landfilling will significantly reduce the mobility of contaminants by securely containing all contaminated soils. The toxicity and volume of these soils, however, will be unaffected. The remaining soils are not considered toxic or hazardous to the public or environment.

Short-Term Impacts and Effectiveness

There are no significant short-term risks to the community or environment associated with any of the alternatives evaluated for the contaminated soils, as long as possible dust emissions during excavation, transportation and disposal of the soil is properly controlled. A health and safety plan will be followed during excavation and transportation off-site to control dust generation and spills, and to minimize potential work exposure to waste constituents. Ambient air monitoring will be performed to monitor particulate emissions during remediation. The construction area will be wetted if needed to minimize particulate emissions.

Implementability

All five alternatives meet minimum technical feasibility, administrative feasibility and availability components of the implementability criterion. The services and materials required to implement these alternatives are readily available. Alternatives 5 and 6 received the lowest implementability score due to the limited capacity of available hazardous waste incinerators.

Alternative 7 meets the technical feasibility, administrative feasibility and availability components of the implementability criterion. This alternative is implementable from an engineering standpoint. All technologies required are conventional and proven.

Cost

Costs for the five alternatives are summarized in Table 2. The least costly alternative is the No Action alternative. The most expensive alternative is Alternative 6, which includes excavation, off-site incineration and disposal of the contaminated soil. Alternative 2 is approximately five times as expensive as the No Action alternative. Alternative 7 is approximately 1.4 to 2.4 million dollars less expensive than incineration alternatives #5 and 6.

The detailed analysis for Alternative 7 was prepared using an underlying set of assumptions that include 8,200 cubic yards of soil to be excavated, of which 3,000 cubic yards will require disposal as a hazardous waste. The estimated construction costs to be incurred by Alternative 7 is $3,000,000.00 which is also the total present worth cost of this alternative as no annual operation and maintenance will be required. It is quite possible that additional soil analysis during design will show less contamination and the cost could be much lower. The cost estimate of this alternative is provided in Table 3.

VIII. SUMMARY OF THE GOVERNMENT DECISION

The selected remedial alternative includes off-site disposal of PCB-contaminated soil. This remedial technology meets the technical and regulatory requirements for remediation of contaminated soil at the Schatz Plant Site as well as complies with NYSDEC TAGM #4030, Selection of Remedial Actions at Inactive Hazardous Waste Sites.

PCB-contaminated soil will be excavated and segregated according to the concentration of contaminants and properly disposed off-site. It is estimated that 3000 cubic yards exceed 50 ppm of PCBs and will be disposed of as hazardous waste while 5,200 cubic yards has PCB concentrations less than 50 ppm and will be disposed of in accordance with Solid and Hazardous Waste Regulations. If determined to be acceptable, the contaminated soil with PCB concentrations less than 50 ppm may be consolidated with similar wastes at the Schatz Federal Bearing Landfill Site (314003) and subsequently remediated with this waste. Following excavation and removal, the area will be backfilled with clean soil and seeded. Institutional controls should be implemented by the site owner to restrict potential exposure to residual subsurface PCBs which exceed one ppm.

Due to the limited impact of the groundwater from site contamination and the availability of a public water supply to all residences and businesses in the area, no remedial action will be implemented for the groundwater.

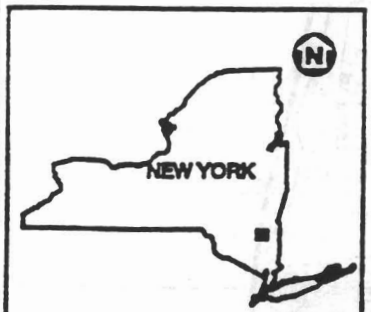
The remedy selected represents a sound balancing of cost considerations with the need to protect public health and the environment by eliminating, reducing or controlling risk.

APPENDICES

APPENDIX A

FIGURES AND TABLES

BASE MAP : U.S.G.S. 7.5 TOPOGRAPHIC MAP
POUGHKEEPSIE, NEW YORK (1982)



QUADRANGLE LOCATION

LATITUDE : 41° 43' 00"
LONGITUDE : 73° 55' 20"

SCALE
0 2000 4000 FT.
2000 FT.

ENGINEERING-SCIENCE

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
RI/FS

SITE LOCATION
SCHATZ PLANT
POUGHKEEPSIE, NEW YORK

TABLE A-1

Estimated Cost for Selected Alternative
Contaminated Soil
Alternative #7 - Excavation/Off-Site Disposal

Description		# Units	Total Cost
MOBILIZATION/DEMOBILIZATION			
Excavation Equipment			$ 4,000
Miscellaneous Construction Expenses			$ 3,000
	Subtotal		$ 7,000
SITE PREPARATION			
Equipment Decontamination/Pad			$ 20,000
Personnel Decontamination Area			$ 2,000
Site Topo and Record Survey			$ 6,000
Security Fence		600 LF	$ 5,610
Security Guard			$ 4,800
Work/Health and Safety Plans			$ 25,000
Health and Safety Equipment			$ 7,500
Utilities Installation			$ 4,000
Electricity and Water			$ 4,000
Soil Storage Facility			$ 2,000
Office Storage Space and Supplies			$ 6,000
Truck Scale			$ 20,000
Erosion Control			$ 2,500
Performance Bond			$ 31,000
Permits			$ 25,000
Insurance			$ 30,000
	Subtotal		$ 197,910
EXCAVATION AND LOADING		8200 CY	$ 32,800
SAMPLING AND TESTING			
Air Monitoring			$ 9,000
Confirmatory Soil Sampling for PCBs		90 SMPLS	$ 18,000
Wastewater Analysis		2 SMPLS	$ 2,400
Reporting and Data Validation			$ 3,000
	Subtotal		$ 32,450
PERIODIC AIR MONITORING			$ 12,500
OFF-SITE DISPOSAL/TRANSPORTATION			
Disposal - Hazardous Waste		3900 CY	$ 975,000
Transportation - Hazardous Waste (approx. 250 miles)		3900 CY	$ 175,500
Disposal - Non-Hazardous Waste		6800 CY	$ 510,000
Transportation - Non-Hazardous Waste (approx. 250 miles)		6800 CY	$ 306,000
	Subtotal		$1,966,500
BACKFILL MATERIAL AND PLACEMENT			
Backfill Material		8200 CY	$ 34,850
Compaction		8200 CY	$ 5,330
6" Topsoil (delivered)		270 CY	$ 2,700
Topsoil Installation		270 CY	$ 1,080
Seeding		0.2 Acres	$ 500
Hay Mulching		0.2 Acres	$ 431
Site Cleaning			$ 3,500
	Subtotal		$ 48,391
CONTRACTOR'S MEETING AND REPORTS			$ 10,000
SUBTOTAL CAPITAL COSTS			$2,307,500
	Engineering	10.0%	$ 230,750
	Contingency	20.0%	$ 461,500
TOTAL CAPITAL COSTS			$2,999,751

APPENDIX B

CONCEPTUAL DESIGN

CONCEPTUAL PLAN FOR THE SELECTED ALTERNATIVE

INTRODUCTION

This section outlines the rationale for the selected alternative and presents a conceptual design of this alternative and the proposed work schedule.

Description of Recommended Alternative #7 - Contaminated Soil

The alternative selected for implementation to remediate the contaminated soil at the Schatz Plant Site is Alternative 7 - Excavation/Off-Site Disposal. This alternative will involve excavating all soil in the yard located northeast of the Schatz Manufacturing Plant building which contains PCBs in excess of 1 ppm in the upper one foot and 10 ppm below one foot. The data collected did not characterize the full depth of contamination in this area. For purposes of the conceptual plan, it is assumed that all soil to a depth of 16 feet will be excavated in the area containing PCBs in excess of 10 ppm below one foot. This soil will be segregated according to level of contamination (e.g. >50 or <50 ppm PCBs), and properly disposed off-site. Based on the results of the remedial investigation, the volume of soil which will require disposal as a hazardous waste (PCBs >50 ppm) is estimated at 3,000 cubic yards (in-place volume). Available site information indicates that an estimated 5,200 cubic yards (in-place volume) of soil will require disposal as non-hazardous waste (PCB concentration <50 ppm). Permitted landfills are available for receiving PCB contaminated soils such as Chemical Waste Management's landfill in Model City, New York and Laidlaw's non-hazardous waste landfill in Bellefontaine, Ohio.

Rationale for Selecting Alternative

This alternative will be protective of human health and the environment as the contaminated soil will be removed from the site and adequately contained off-site. Alternative 7 will meet all action, chemical, and location-specific SCGs. Excavation and disposal is both a technically and administratively feasible option. The availability components of the implementability criterion are met.

Alternative 7 has the third highest total TAGM score (76) placing below Alternative 5 - Excavation/On-Site Incineration/Off-Site Disposal (TAGM Score 85) and Alternative 6 - Excavation/Off-Site Incineration/Off-Site Disposal (TAGM Score 80). Although they offered significantly better reduction in toxicity, mobility and volume of the hazardous constituents, Alternatives 5 and 6 presented only slightly more long-term effectiveness than Alternative 7. However, these benefits are overshadowed by the $1.4 (47%) and $3.2 (107%) million dollar increases in the cost to implement these actions rather than Alternative 7. Also, Alternatives 5 and 6 are slightly less implementable, with availability and administrative difficulties arising because of the limited off-site incinerators available to receive the waste soil and regulatory complications associated with on-site incineration.

Alternative 7 was selected over Alternative 2 (capping the contaminated area) based on the fact that Alternative 7 provides significantly better long-term effectiveness than Alternative 2 and similar implementability, protection of human health and the environment, and short-term effectiveness. Disposal of the hazardous soil in an engineered, secure, permitted hazardous waste landfill is a more effective long-term remedy than capping. This action has a greater expected lifetime and does not allow untreated hazardous waste to remain on-site. Also, the capping option involves long-term obligations in maintenance and monitoring that will not be required using Alternative 7.

In addition, Alternative 7 offers several advantages over Alternative 2 that were not fully considered through the TAGM scoring system. The capping option impacts the landscape and restricts future land use. These facts were not fully accounted for due to the difficulty to quantify such intangibles in financial terms. If the capping alternative was selected, additional remedial efforts may be required in the future, as this alternative would have to be reviewed every five years to assure that human health and the environment are being protected. This fact would make the capping alternative financially less appealing. In addition, with expanded efforts to remove all hazardous soils from the site comes the benefit of greater public acceptance. These benefits along with the significant increase in long-term effectiveness outweigh the additional cost ($2.6 million) required to implement Alternative 7 over Alternative 2.

Several potential negative aspects must be addressed for Alternative 7. The activities of excavating and transporting the hazardous waste to an off-site landfill involve potential risks to both human health and the environment. These concerns can be sufficiently addressed by implementing a proper project Health and Safety Plan and specific dust control measures.

The remedial activities may have a short-term impact on businesses located at the facility and to nearby residents. Before the implementation of any remedial measures, each business located at the facility will be approached to discuss potential difficulties such as health risks due to remediation, truck routes, etc. Likewise, local residents will be informed of any actions that will be taken at the Schatz Site. Any comments or concerns from local businesses or residents will be addressed prior to remediation.

Conceptual Plan

Alternative 7 would involve all elements necessary to excavate, dispose, and backfill the areas that are contaminated with PCBs in excess of one (1) ppm in the surface and 10 ppm in the subsurface. Before any remedial activities are undertaken, it is recommended that additional soil borings be conducted to further define the depth of contamination as the current limits of contamination have been based on soil samples from the top 2 feet of soil and an estimated depth to the top of bedrock.

Several considerations need to be addressed to successfully remove the soil from the site. A decontamination pad and a truck scale will be installed near the area of concern before any soil is removed. The decontamination pad will be used to contain removed contaminants from both equipment and personnel. The truck scale will allow for an accurate means of determining soil quantity removed from the facility. Based on the location of the contamination, the hazardous

soil (PCB > 50 ppm) will have to be removed first followed by removal of the non-hazardous soil. The hazardous soil will be landfilled at a TSCA or RCRA permitted disposal facility such as the Chemical Waste Management Landfill in Model City, New York, and the remaining soil would be disposed of in a non-hazardous waste landfill. January 1993 price quotes for landfilling this waste are approximately $250 per cubic yard for the hazardous waste and $75 per cubic yard for the non-hazardous waste (excluding transportation costs).

Efforts will be made to ensure that the waste is transported to the disposal sites in a safe manner. The soil will be thoroughly covered with a tarp during transportation to minimize losses. All necessary transportation permits will be secured by the hauler before any contaminated soil leaves the site. Trucks used to haul away contaminated soil will be draped with plastic to the greatest extent possible to minimize contamination of these vehicles. All equipment used to excavate and transport the soil will be thoroughly decontaminated following removal of the hazardous waste to minimize cross-contamination of the non-hazardous soil. Before any truck leaves the site, it will be thoroughly decontaminated. All wastewater generated during decontamination activities will be analyzed and properly disposed.

After all of the contained soil has been removed, the excavation will be back-filled with clean soil. The final six-inch fill will consist of topsoil and will be seeded and mulched to prevent soil erosion. All necessary compaction will be done to ensure that the surface will not settle significantly (e.g. more than 6 inches).

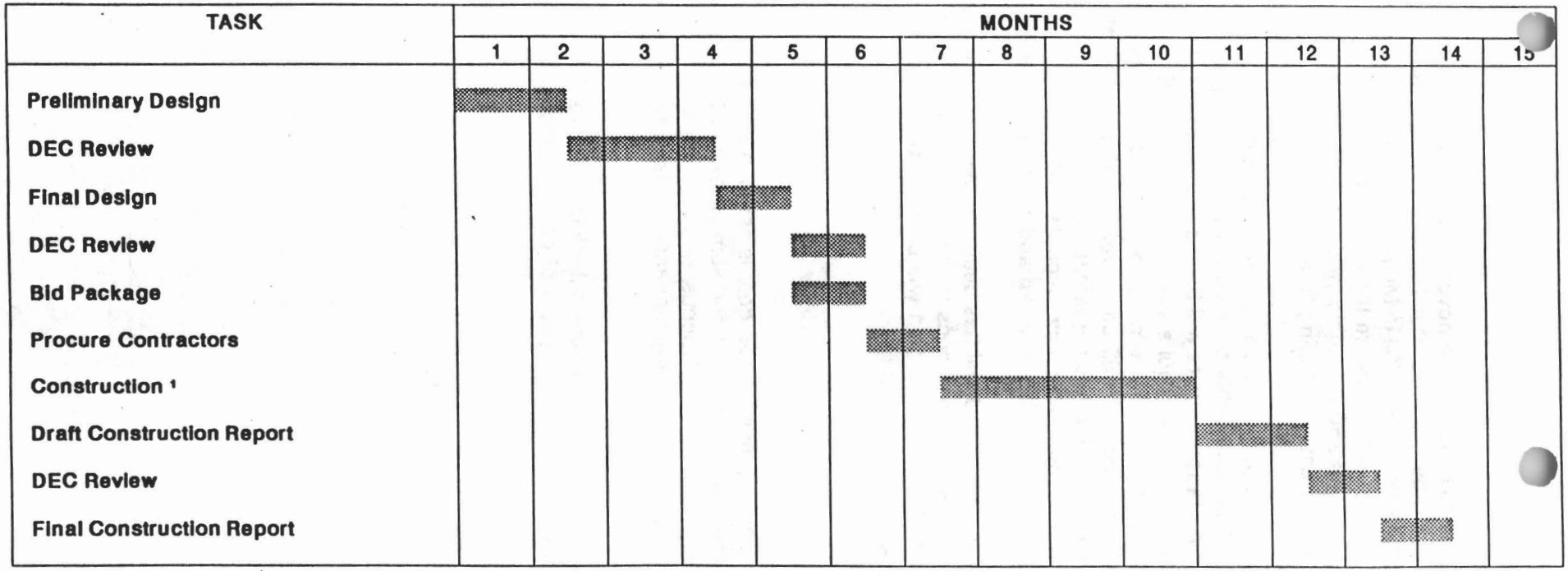
Remediation Cost and Schedule

The total clean-up construction cost is estimated at $3.0 million for Alternative 7. This cost summary is itemized in Table A-1 and summarized in Table 3. In addition, excavation with off-site disposal of the five miscellaneous areas of contamination is estimated at $300,000. There are no annual operation and maintenance costs as no hazardous waste will be left on the site.

Figure B-1 shows a preliminary schedule that has been developed for implementing Alternative 7 (excavation/off-site disposal of contaminated soil), at the Schatz Plant Site.

FIGURE B-1

Excavation (> 1 ppm PCB) Soil / Off-Site Disposal Schedule for the Schatz Plant site



(1) Somewhat dependent on the time of the year construction could first commence. Construction during periods of extreme heat or cold is not recommended.

APPENDIX C

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
PROPOSED REMEDIAL ACTION PLAN

SCHATZ PLANT SITE #3-14-074

INTRODUCTION:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) held a public meeting for the Schatz Plant Site (3-14-074) on March 4, 1993 at the Poughkeepsie Town Hall. Due to inclement weather, attendance was poor and a second public meeting was held on March 9, 1993 at the same place. The following representatives of NYSDEC, NYSDOH, Dutchess County Department of Health (DCHD), and Engineering-Science conducted these meetings. A transcript of the March 9 meeting will be available at all three repositories listed below.

Thomas Gibbons	-	Project Manager, Hazardous Waste Remediation, DEC, Albany
Chittibabu Vasudevan	-	Section Chief, Hazardous Waste Remediation, DEC, Albany
Salvatore Ervolina	-	Bureau Director, Hazardous Waste Remediation, DEC, Albany
Erin O'Dell	-	Citizen Participation Specialist, DEC, Region 3, New Paltz
Joseph Crua	-	Project Manager, Environmental Exposure Investigation, DOH, Albany
Nina Knapp	-	Health Liaison Program, DOH, Albany
Steve Capowski	-	Dutchess County Health Department
Peter Petrone	-	Project Manager, Engineering-Science
William Lilley	-	Project Geologist, Engineering-Science
William Bradford	-	Toxicologist, Engineering-Science

Four citizens/local officials attended the March 4 meeting and seven citizens/local officials attended the March 9 meeting.

PURPOSE OF THE MEETING:

The purpose of the meeting was to present to the public and receive comments on the results of a Remedial Investigation/Feasibility Study (RI/FS) and DEC's Proposed Remedial Action Plan (PRAP) for the site. The RI/FS was performed by Engineering-Science under the NYS Superfund Program. The public meetings were held during the public comment period (from February 11, 1993 to March 16, 1993) on the PRAP. The RI/FS and the PRAP were made available for public review on February 11, 1993 at the following locations:

- Poughkeepsie Town Hall
- Adriance Public Library, Poughkeepsie
- DEC Region 3 Office, New Paltz, NY

The remedial alternative selected in the PRAP included: excavation to remove all soils with PCB contamination exceeding the cleanup levels, off-site disposal of the excavated soil in accordance with Solid and Hazardous Waste Regulation, and backfilling the excavated area with clean fill (Alternative 7).

PUBLIC RESPONSE:

The public response to the PRAP during the meetings was generally positive. Public supported the PRAP. However, Town officials asked how DEC prioritized between cleaning up the buildings and on-site soils; they felt that the buildings pose a greater threat with respect to PCB exposure, particularly to the community if these buildings were to catch fire, releasing PCBs into the air.

DEC/DOH RESPONSE TO PUBLIC COMMENTS:

DEC, in consultation with DOH, selects the remedy recommended in the PRAP -- Alternative 7. The selected remedy includes: excavation to remove all soils with PCB contamination exceeding the cleanup levels, off-site disposal of the excavated soil in accordance with Solid and Hazardous Waste Regulation, and backfilling the excavated area with clean fill (Alternative 7). Summary of Comments and Responses are provided in the Attachment.

SCHATZ PLANT SITE (3-14-074)
DUTCHESS COUNTY, NEW YORK

SUMMARY OF MAJOR COMMENTS AND RESPONSES

The following comments were raised during the public meetings held on March 4, 1993 and March 9, 1993. No written comments were received within the comment period of February 11, 1993 to March 16, 1993.

C When will the remedial action (excavation and off-site disposal of soil) at the Schatz Plant Site begin? When will it be completed?

R Once the Record of Decision has been signed, the Remedial Design/Remedial Action (RD/RA) process will begin immediately. As part of the transition process from RI/FS to RD/RA a concerted effort will be made by NYSDEC to have the potentially responsible parties (PRPs) implement the remedial alternatives selected for this site. Depending on the PRP's willingness or financial capability, this negotiation process may take months (or longer) to complete. Even if the PRP makes a strong commitment to clean up the site, it is unlikely that cleanup would take place this year. Once underway, cleanup is expected to take roughly 14 months.

C Given that it may be some time before remediation of the contaminated soils will take place, and that the site poses a threat of human exposure, how will you ensure that the public health will be protected?

R Areas of the contaminated soil which pose a threat to human health will be access-restricted and signs will be posted to make the public aware of the potential health threats.

C What are the potential risks of public exposure to PCBs during soil excavation?

R Excavation activity has the potential to cause airborne dust and silt, possibly contaminated with PCBs. NYSDEC is required to prepare a Health and Safety Plan prior to implementing a remedial action. This plan will identify potential risks both to on-site workers and the community associated with implementing the remedial action and presents methods to ensure risks are minimized. The Health and Safety Plan will present in detail, methods to be followed which will suppress airborne dust such as wetting and foam agents. In addition, perimeter air monitoring will be conducted continuously during any excavation activities to ensure that contaminants are not leaving the site. Shutdown of these activities will be implemented or modified immediately if levels exceed health and safety guidelines.

C Are current operators dumping at this site now?

R The contamination we have identified at the site occurred prior to bankruptcy of the Schatz Federal Bearing Company in 1980-81. The current operators/owners are not suspected of causing this contamination. In addition, NYSDEC is not aware of any current dumping by the current operators.

C What health risks exists for people working in the on-site buildings?

R While PCBs are prevalent on the oil-stained floors in buildings #2 and 3, and on subflooring in the Rehabilitation Center, significant air sampling inside these buildings did not detect any PCBs or any other hazardous constituent which would be of concern to human health. Due to their low volatility (evaporate slowly) and their presence in an oily matrix in the buildings, it is unlikely that humans will be exposed to PCBs through inhalation. A health risk would exist, however, if one is exposed to PCB floor dust via skin contact or ingestion. Presently there is no risk from the subflooring in the Rehabilitation Center since it is covered. Currently no data exists for the active buildings on site (i.e., Four Thousand Dye Company, Acme Caster Company, Sargo, Taconic Vehicle Maintenance, etc.); however, contamination in these buildings could be addressed in future remedial efforts for the buildings.

C The reports indicate that floor drains inside building #3 were sampled and contamination was found. Are these drains still active and where do they discharge? What would happen if a spill occurred in this building?

R These drains are not active and probably have not been used since bankruptcy of the Schatz Federal Bearing Company in the early 1980s. PCBs and other contaminants have been detected in the drain residuals. We were not able to determine where these drains discharge, but is likely they are connected to a sewer line. The likelihood of spillage is remote since the drains (and building) are no longer active. These drains could be addressed in future remedial efforts for the buildings.

C How did NYSDEC prioritize between cleaning up the building and on-site soils? It would appear that the buildings pose a greater health threat with respect to PCB exposure, particularly to the community, if these buildings were to catch fire, and release PCBs into the air.

R The recommendation to remediate only contaminated soils at this time was not a matter of setting priorities, but based on our knowledge of the extent of the problem in each area. The contaminated soils area was well defined in terms of nature and extent, making the remedy more clearly identifiable. A remedial action to address the buildings could not be recommended until the full extent of the problem has been defined. Since we did not want to hold up addressing the soils until the buildings are fully investigated, the site was divided into two operable units. A recommendation which will focus on the building (Operable Unit #2), will be made once data collection has been finalized.

The issue of a fire at this facility and how PCB contamination in the buildings might impact the firemen and community was evaluated by the NYSDOH. For firemen entering the building during a fire, exposure to PCBs would be minimal under normal operating procedures in which protective clothing and self-contained breathing apparatus (SCBA) would be used. In addition, proper decontamination of equipment would be necessary after fighting a fire within the contaminated buildings. With respect to the community, a contaminant dispersion model using very conservative analysis (a worse case scenario) identified a very low, short-term impact to the community which would not represent a significant health concern.

C How can the dispersion model claim that there is a low impact from PCBs when, during the screening of remedial alternatives, incineration was rejected because it would require pollution control permits?

R Incineration was primarily rejected because it cost 50 percent more than off-site disposal of soils. On-site incineration would also take more time to implement the remedy because it requires obtaining necessary federal and state regulatory approvals. With state-of-the-art pollution control devices, there would be a low impact to public health and environment. If on-site incineration were selected for the site, it would not have significant impact on the public health.

C Did the model include the likelihood that residents in the vicinity of the plant have respiratory problems? How would you know that the acceptable exposure limits to PCBs determined by the model had been exceeded? After the fire, when everyone was affected?

R The model did not take into consideration the possibility that nearby residents have respiratory problems. Based on this model, any health risks associated with a fire would be related to smoke and not from PCBs. If a decision to evacuate nearby residents is made, it would be made based on the health risks associated with smoke and not PCBs.

C How many groundwater samples were taken?

R Thirteen monitoring wells were installed on-site or adjacent to the site. Toluene was the only contaminant of concern which was identified. It was found in a single, downgradient monitoring well at a level of 9 parts per billion (ppb), slightly exceeding the groundwater standard of 5 ppb. Since this contaminant was not identified elsewhere at the site, it may not be site-related.

C What is being done with the other areas of soil contamination outside the boundary area?

R Four other small areas of concern were identified in which levels of metals or polyaromatic hydrocarbons (PAHs) exceeded cleanup criteria. These contaminated soils will be excavated and incorporated with soils from the boundary area and disposed off-site.

C What is the cost of on-site incineration?

R On-site incineration is estimated to cost approximately $4.5 million, roughly 50% higher than off-site disposal.

C On-site incineration scored the highest in terms of the seven screening criteria. Why was this alternative not selected over off-site disposal?

R This alternative scored high primarily because incineration is a proven technology which quickly and permanently destroys PCBs and other organic materials. The overriding factors which caused us ultimately to select off-site disposal over on-site incineration were the large cost differential, and the close proximity to high population areas.

C How much has the State spent on this study so far?

R Approximately $700,000 has been spent on the RI/FS Study, including the removal of drummed hazardous wastes and PCB-bearing capacitors.

C When does Superfund come into play if remedial investigation or remedial action is required at a hazardous waste site?

R Prior to and during the RI/FS and RD/RA process, all potentially responsible parties are identified and pursued for involvement and cost recovery. If a viable PRP will not or cannot make the financial commitment to address the contaminant problems, the site is investigated and remediated using Environmental Quality Bond Act money. The State will likely attempt further cost recovery actions following remediation.

C Would the municipality be liable at any point if it acquired the property for nonpayment of taxes?

R According to New York State Regulation, the Municipality would be a responsible party if it acquired the property. If the Municipality acquired the property involuntarily (through bankruptcy, tax delinquency, abandonment, or other circumstances in which it acted in its sovereign capacity) after the time when the site was first listed in the Registry, it may be eligible for financial assistance from the State under the Environmental Conservation Law, Article 52, Title 3.

C Are there any health concerns related to the contaminants found at the Rehabilitation Center playground?

R Low levels of polyaromatic hydrocarbon (PAHs) were found in one sample (S-98). The total level was 22 ppm. The constituents found in this sample are very typical of tar from paving or asphalt. Since this sample was taken very close to the north end of the playground, adjacent to the pavement, it is likely this sample was contaminated with tar. This small area of soil will be removed during remediation of the site.

C There is a vegetable garden adjacent to the boundary area where PCBs have been found. Is there any health threat associated with vegetables eaten from this garden.

R Numerous samples were taken between the PCB-contaminated soil area and the garden and PCBs in the garden area were either not detected or well below health-based cleanup criteria. As such, exposure to site-related contaminants in the garden are not expected.

APPENDIX D

ADMINISTRATIVE RECORD

ADMINISTRATIVE RECORD
SCHATZ PLANT SITE
I.D. #314074

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