

**INTERIM REMEDIAL MEASURES WORK PLAN - No. 1  
PEERLESS PHOTO PRODUCTS SITE  
(ID NO. 1-52-031)  
ROUTE 25A AND RANDALL ROAD  
SHOREHAM, NEW YORK**

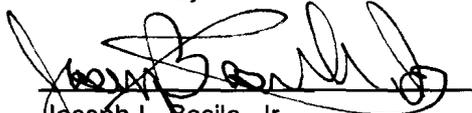
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July 25, 1996

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## 1.0 INTRODUCTION

GT Engineering PC, on behalf of Agfa Division of Bayer Corporation (Agfa), has prepared this Interim Remedial Measures (IRM) Work Plan for the Peerless Photo Products site owned by Agfa, and referred to herein as the "site." The site is located at Route 25A and Randall Road in Shoreham, New York (see figure 1, Site Location Map). Given that subsequent IRM Work Plans may be prepared for this site, this initial document will herein be referred to as "IRM Work Plan No. 1".

The site was characterized as a Class 2 Inactive Hazardous Waste Disposal Site under the New York State Superfund Program (ID No. 1-52-031). This IRM program is being undertaken pursuant to the "spirit" of the New York State Department of Environmental Conservation (NYSDEC) Order on Consent W-10428-89-07 voluntarily entered into by Agfa on August 17, 1991; the results of the Phase 1 Remedial investigation (RI) I; various meetings; and correspondence received from and provided to the NYSDEC and other regulatory agencies. Further, the general guidelines established by the following NYSDEC Technical and Administrative Guidance Memorandums (TAGMs) were used to prepare the IRM No. 1 Work Plan:

- HWR-92-4042, entitled "Interim Remedial Measures", dated June 1, 1992, and
- HWR-92-4048, entitled "Interim Remedial Measures - Procedures", dated December 9, 1992.

The proposed IRM No. 1 program has been developed to address three discrete areas of the site, that, based upon the data collected as part of the Phase 1 RI, can be remediated in an expeditious, time efficient and cost effective fashion.

The Phase 1 RI results, conclusions, and recommendations were forwarded to the NYSDEC and other regulatory agencies in a report prepared by GT Engineering PC entitled, "Phase 1 Remedial Investigation Report, Peerless Photo Products Site (ID No. 1-52-031), Route 25A and Randall Road, Shoreham, New York," dated June 16, 1995. Comments on the Phase 1 RI report were provided by the NYSDEC to Agfa in correspondence dated September 29, 1995. Responses to the NYSDEC comments were presented to the NYSDEC on November 16, 1995, in a meeting at their offices in Stony Brook, New York.

During the course of the meeting, all parties present agreed that selected areas of the site should be further investigated as part of a Phase 2 RI as proposed by Agfa, and that the three subject areas (identified below) would be candidates for an Interim Remedial Measures program. A summary of the meeting and revisions to Agfa's responses were submitted to the NYSDEC on December 19, 1995. After telecommunications with the NYSDEC case project manager, Girish Desai, on February 7, 1996, the final meeting minutes were revised and distributed to the meeting participants on

February 23, 1996. The minutes reference the IRM activities. This Work Plan, therefore, fulfills the requirements as stipulated in the final version of the meeting minutes for the submission by Agfa of an IRM Work Plan.

### **1.1 Areas of Potential Concern to Be Addressed via an IRM**

As defined in the Phase 1 RI Report, GT Engineering PC investigated and reported on 12 Areas of Potential Concern (APCs) and sitewide groundwater quality. The Phase 1 RI report concluded that of the 12 APCs investigated, 5 required no further action; 3 would be addressed by an Interim Remedial Measure; 2 would be addressed during the feasibility study; and 2 APCs and sitewide groundwater quality required further investigation as part of a Phase 2 RI program (figure 2, Site Map). A summary of the proposed APC actions as verbally approved by the NYSDEC during telecommunications with Fluor Daniel GTI on February 7, 1996, is provided as table 1. Note that table 1 is a revised reproduction of table 10b, which was included in the draft meeting minutes of the November 16, 1995, meeting issued on December 19, 1995, and the final version of the meeting minutes issued on February 23, 1996. The five APCs which required further investigation are currently being addressed via the implementation of the approved Phase 2 RI Work Plan dated May 17, 1996.

The APCs that will be addressed as part of the IRM No. 1 program, and which are the subject of this Work Plan are:

- APC No. 8: Emulsion Building Sump
- APC No. 9: Water Meter Room Pit

### **1.2 Purpose and Objectives of IRM No. 1**

The purpose of this IRM is to expeditiously complete an appropriate remedial action at each APC so that the areas are no longer a potential or perceived impact on human health and the environment, at or in the vicinity of the subject site.

It is Agfa's position that the stated IRMs also serve as the final remedy for these areas and, therefore, no further remediation of these APCs will be required. This position will be further supported and addressed with the completion of the Feasibility Study (FS).

Project-specific objectives for the IRM No. 1 program include:

- Abandon the selected Phase 1 RI installed boring (SB-20) in the APC No. 8 area, so that surface waters/building condensation cannot infiltrate the bore hole.
- Remove soils/residual materials from the selected APC, such that no further action will be required.
- Collect sufficient end point sampling data during the removal action area to document that interim remedial objectives have been achieved, and therefore, if such objectives are achieved that the IRMs can serve as the final remedy for the addressed APCs.
- Complete the IRM No. 1 program in an accelerated manner so that this action is completed by the end of fall 1996.

### **1.3 Use of Existing Work Plans**

The Phase 1 RI/FS Work Plan, dated September 30, 1993, included a number of supporting documents that detailed site-specific health and safety procedures, media sampling protocols, laboratory analytical protocols, and public communication and participation guidelines. The same supporting work plans and relevant sections from the Phase 1 RI/FS Work Plan will be used for the implementation of the IRM No. 1 RI program with no modifications to the basic documents. However, the specific tables and figures of the documents (which referred to Phase 1 RI sampling locations or then-proposed Phase 2 RI well locations, media type, and sampling quantities) are now not applicable.

Table 2 provides a synopsis of the Phase 1 RI work plan documents that will be used during the IRM No. 1 program. All supporting documents were previously approved by the NYSDEC for implementation in correspondence to Agfa dated February 14, 1994. A complete copy of each document can be found in the Phase 1 RI/FS Work Plan. Table 2 includes a list of the specific tables and figures of the original documents that are now not applicable, and the corollary IRM No. 1 Work Plan figures and tables that replace them.

### **1.4 IRM No. 1 Work Scope Summary**

The IRM No. 1 program will consist of implementing either a targeted excavation or bore hole abandonment program using invasive remedial techniques, and the preparation of a completion report. The following is a brief synopsis of each IRM No. 1 activity:

- **APC No. 9:** The industrial process residue within APC No. 9, Water Meter Room Pit, will be removed and the sump pit will be cleaned. The pit will be dismantled and soils from the beneath the pit will be removed. An excavation end point sample will be collected from the area. Once the end point sampling results have been reviewed and the NYSDEC has agreed the IRM objective has been met, the excavation will then be backfilled with clean fill and capped with a cement finish.
- **APC No. 8:** The SB-20 boring, completed as part of the Phase 1 RI program, and which constitutes APC No. 8, will be backfilled with a bentonite grout material, and concrete plug. The concrete plug will be troweled flush to grade and coated with an impermeable floor sealing material.
- **Completion Reporting:** All IRM No. 1 activities will be summarized in an IRM Completion Report and submitted to the NYSDEC for review and approval.

## 2.0 SITE BACKGROUND

This section presents a brief description of the site, the facility, and a summary of previous site studies and investigations that have been undertaken by Agfa. A complete description of the facility, historical site aspects, and the results of previous investigations undertaken prior to completion of the Phase 1 Remedial Investigation program can be found in the Phase 1 Remedial Investigation/ Feasibility Study (RI/FS) Work Plan dated September 30, 1993. This section is included with the IRM No. 1 Work Plan for completeness.

### 2.1 Site Description

The site is located in the village of Shoreham, in the town of Brookhaven, Suffolk County, New York (figure 1). The site is bordered to the south by Route 25A (also known as the Port Jefferson-Riverhead Road), to the west by Randall Road, to the north by residences and the LILCO Right-of-Way, and to the east by Tesla Street and residential properties.

The site is located in a predominantly residential area. Retail establishments are located to the east and west along Route 25A. Immediately to the north, the site is bordered and overlapped by a LILCO Right-of-Way containing high voltage transmission lines. The Suffolk County Water Authority, Briarcliff Road public supply well field (formerly owned by Shorewood Water Supply Company), is located approximately 600 feet northwest of the site. The site is enclosed by a 6-foot-high chain-link fence and is guarded 24 hours per day. The perimeter of the fenced area is inspected daily.

Structures on the 16.2-acre site include the main plant on the northeastern corner of the site, Building 13 (an administration building) on the southern area of the site, the administration building (Building 17) and wastewater treatment facility (Building 14) on the southwestern corner of the site, a gatehouse at the entrance on the western side of the site, and two small storage sheds on the southwestern corner of the main plant. Parking lots are located adjacent to the administration building, and roadways lead to the buildings. The former wastewater treatment plant recharge basins are located along the northern side of the site beneath LILCO's transmission lines. Figure 2 illustrates significant site features.

The main plant consists of 13 interconnecting buildings. The majority of the main plant was either constructed before 1955 or between 1973 and 1984. The use of each building has varied over time. Building 18 is a three-story building with a small laboratory and storage rooms on the first floor and equipment rooms on the second and third floors. Building 4, located at the northeastern corner of the main plant, housed offices and quality assurance laboratories. Building 10, located in the north-central portion of the main plant structure, was a maintenance building with machine shops and

offices. Building 16, located on the southern side of Building 10, housed shop areas and a large boiler. The use of buildings 1, 2, 5, 6, 7, 8, 9, 12, 15, and 17 varied over time and potentially included combinations of processing operations.

## **2.2 Previous Studies and Investigations**

Malcolm Pirnie, Inc. conducted a groundwater investigation for Agfa in 1980. There have been several other investigations and data gathering events at the site including the following:

- a Phase 1 Preliminary Investigation conducted by the NYSDEC in 1983
- a Phase II Investigation conducted by Agfa between 1986 and 1988
- an underground storage tank removal program conducted by Agfa in 1990

A survey of all significant features including areas of potential environmental concern in 1992 and a survey of all sanitary pools and stormwater drywells in 1992 were also conducted. A summary of each of these investigations can be found in the Phase 1 RI/FS Work Plan. This document is on-file with the NYSDEC, and at the site's public repository, located at the Shoreham/Wading River Public Library.

Based on the previous investigation results, Agfa implemented a Class V Injection Well Closure program, a Phase I Remedial Investigation program, and a Baseline Risk Assessment. The following is a brief summary of each of these investigations and data gathering events.

### **2.2.1 Class V Injection Well Closure Program**

All on-site stormwater drains and sanitary pools were identified, opened, and visually inspected for the presence of liquids, depth, diameter, construction, and interconnecting piping by Fluor Daniel GTI in 1992. Based on this inspection, a Work Plan for removing materials from selected sanitary pools and drywells, sampling, and closure was prepared. The Work Plan, entitled Work Plan for Closure of Class V Injection Wells, was submitted to the SCDHS and NYSDEC. The plan was approved and implemented during 1994. The investigation indicated that target compounds were detected at selected injection well locations. Based on this finding, Agfa cleaned out the injection wells and collected endpoint samples in accordance with the Injection Well Work Plan. The cleanout program was successful and substantial reductions in residual compounds were achieved. Of the 21 injection wells addressed at the facility, only 3 require further action as approved by both SCDHS and NYSDEC. A complete copy of the Class V Injection Well Closure Program report, dated June 8, 1995, is on file with both the SCDHS and the NYSDEC.

### **2.2.2 Phase I Remedial Investigation**

The Phase 1 Remedial Investigation field program evaluated 12 APCs that previous remedial investigation scoping efforts had identified as requiring further action. The Phase 1 Remedial Investigation field program consisted of an inspection of the facility's building interiors by NYSDEC and Agfa representatives, a geophysical survey of selected target areas, completion of numerous soil borings, and the installation and sampling of groundwater monitoring wells at both on-site and off-site locations. Field work began in April 1994 and was completed in February 1995.

Twenty-two soil borings and 26 surface soil sampling locations were addressed during the Phase 1 Remedial Investigation program. In brief, the data collected indicated that impacts from volatile, semivolatile, polychlorinated biphenyls (PCBs), and pesticides/herbicide compounds were generally not present in the sampled soils at levels above either regulatory or risk assessment derived values of concern. Target Analyte List metals were present in all samples submitted but at varying concentrations. Most notably, impacts from cadmium and silver (considered the primary metals of interest for this investigation by the risk assessment) were present at concentrations above background levels in the North Recharge Basin, the LILCO Right-of-Way sampling area, the Emulsion Building Sump Area, and the West Soil Storage Area. Concentrations of silver ranged from non-detect to approximately 460 parts per million (ppm). Concentrations of cadmium ranged from non detect to approximately 22 ppm. Elevated levels of metals were also found in the residue sample collected from the Water Meter Room Pit, at concentrations generally higher than those ranges stated above.

Nine on-site and off-site monitoring wells were sampled for the full NYSDEC Target Compound List/Target Analyte List (TCL/TAL) constituents. Two groundwater quality sampling rounds were completed as part of the investigation in August and November 1994. The results indicated that volatile, semivolatile, PCBs, and pesticide and herbicide compounds were not detected at levels above regulatory or risk assessment derived values of concern. Selected TAL metals were detected. Most notable and of primary concern was cadmium, which was detected at a majority of the sampling locations (both on-site and off-site) at levels exceeding the New York State groundwater quality limit of 5 parts per billion (ppb). The highest concentration of cadmium was reported at MW-6 (Tesla Tower Base) at a concentration of 269 ppb (August 1994 sampling event). Cadmium was also detected at MW-2 (located downgradient and off-site) at approximately 135 ppb (August 1994 sampling event). In general, November 1994 metals concentrations in groundwater were lower when compared with the August 1994 results. Furthermore, a comparison of the MW-2 and MW-2A results (well couplet pair) revealed that the water quality of MW-2A, the well screened deeper in the aquifer, was better and generally within New York State groundwater quality standards, when compared with MW-2.

Given the proximity of the Briarcliff Road Well Field production wells to the site, Fluor Daniel GTI compiled a summary of well field water quality data from 10 years of sampling results provided by both the Suffolk County Water Authority and the former Shorewood Water Company. Site-related

target compounds were not detected at the well field. The well field does, however, have granular activated carbon treatment installed to remove the pesticide dactyl from the production stream. The compound is not related to former Peerless Photo Products operations. Further, recent information provided by the SCWA has indicated that this well field will likely be permanently abandoned and taken out of service due to the impacts of the pesticide.

### **2.2.3 Baseline Risk Assessment**

Agfa contracted ENVIRON Corporation to prepare a Baseline Risk Assessment for the site. The risk assessment concluded that NYSDEC Target Compound List (TCL) constituents (volatile, semivolatiles, PCBs, and herbicides/pesticides) were not present at concentrations of concern in either soil or groundwater. Furthermore, none of the TAL metals were detected in surface soils at either on-site or off-site locations at levels of dermal contact concern. With regard to subsurface soils, the risk assessment determined that of the metals analyzed for during this investigation, cadmium is of primary interest. ENVIRON professionals excluded potential impacts to groundwater from all other TAL metals found in subsurface soils based on their review and analysis of the available data.

Based on the results of the risk assessment and the Phase 1 Remedial Investigation field sampling program, the data indicated that of the 12 APCs investigated, 7 will require further action as part of either a Phase 2 Remedial Investigation or a feasibility study.

### **2.2.4 Phase 2 Remedial Investigation Program**

A Phase 2 RI Work Plan dated May 17, 1996 was approved by the NYSDEC for implementation in correspondence to Fluor Daniel GTI dated June 4, 1996. The Phase 2 RI consists of the installation of two additional groundwater monitoring wells, installation of 13 additional soil borings, supplemental surface soil sampling in the Long Island Lighting Company right-of-way, and the completion of an additional round of groundwater sampling. Currently, this program is being implemented. Field work will be completed by the end of July 1996, and a final report issued by winter 1996.

### **3.0 INTERIM REMEDIAL MEASURES FIELD WORK**

The field program to be implemented during the IRM No. 1 activities is detailed below.

#### **3.1 APC No. 9: - Water Meter Room Pit**

##### **3.1.1 Background**

The Water Meter Room Pit is designated APC No. 9 and located within the interior of the main plant building, where a collection pit (sump) for former process waters was located. The room in which the sump/pit is located also contains the facility water meter, hence the name "water meter room pit". This pit was denoted for investigation based upon a 1992 inspection of the facility by various Agfa, NYSDEC and Suffolk County Department of Health Services (SCDHS) personnel. During the Phase 1 RI program, residual materials found in the base of the sump were sampled (sample ID SB-21). The results of the sampling indicated that residual concentrations of target compounds were present in the materials. Further, the drain lines which terminated within the pit were subject to closure procedures as part of the completion of the Class V Injection Well Clean out and Closure program completed in 1994.

The pit is constructed of 8" concrete block and mortar and its dimensions are approximately 3' x 2' x 3'. A total of 5, 2" copper pipes, 4, 1" copper pipes, and 3, 6" carbon steel pipes/ drains terminate in the interior of the pit. A flat, 1/4" steel plate is used to cover the pit. Figure 4 is a sketch of the water meter room pit. Figure 4 also details the position of the pit within the water meter room and the approximate room dimensions and ceiling clearances. The sump interior still contains dried, residual materials.

##### **3.1.2 IRM Purpose and Performance Standard**

The purpose of this IRM is to remove the residual materials from the inside of the pit, dismantle the pit, and remove a limited volume of soil from beneath the pit. Through these actions, Agfa will achieve a no further action determination for this APC.

For this IRM, the Performance Standard that must be obtained to achieve a no further action determination will be the removal of approximately 0.5 feet (conditions permitting) of the pit bottom subbase material. When this Performance Standard has been met, this IRM action will be deemed successful. Given that the area is located in the building interior and will be covered, capped and sealed with concrete, leaching of any residual material from the area is remote.

##### **3.1.3 IRM Methods**

The residual material in the pit will be shoveled out and placed in a proper container pending disposal. Once the materials have been removed, the piping which terminates in the pit will be cut back flush with the room walls and capped. The pit interior drains will be cutoff flush with the pit sides and their interiors will be filled with a concrete plug. All piping will be placed in a holding container pending disposal. The surface of the concrete block, which comprises the pit interior will be "faced" with a cold chisel and hammer or other abrasive device. This spilled material will be placed in the residual material holding container. Following this procedure, the pit will be demolished using manual or mechanical means, and the base of the pit will be razed. The demolition debris will be containerized. Once the subbase material which underlies the pit is exposed, approximately 0.5 feet of this material will be removed (conditions permitting). An endpoint sample will be collected from the sub-base material. Specific soil sampling procedures are detailed in section 3.2.4. Following pit removal, and the completion of the endpoint point sampling program, the area will be filled with concrete and leveled flush to grade.

The following procedure will be followed to implement this IRM activity.

*3.1.3.1. Excavation Program Setup.* Agfa will plan activities on-site and coordinate with an excavation/decontamination contractor. The area to be removed and scope will be transmitted to the selected firm. Final schedules for the removal action will be transmitted to NYSDEC approximately 5 days prior to the excavation program start.

*3.1.3.2. Pit Decontamination and Excavation On-site Work.*

- A. An exclusion/hard hat zone will be established, and a health and safety tailgate meeting will be conducted. All excavation health and safety procedures, air monitoring requirements, and inspection procedures will be detailed. Given the low ceiling heights present in portions of the water meter pit room, all low overhangs and overheads will be flagged and pointed out to all workers.

Note: Hard hats will be worn at all times, as will face shields and protective gloves and outer clothing. The exclusion zone will begin at the room entrance, and no personnel will be allowed to enter the room during IRM activities unless they are wearing at a minimum, modified level D (hard hats, steel toe boots, tyvek overalls, inner and outer gloves) apparel, and a chip resistant face shield. During cleaning and demolition activities, full face respirators, equipped with dust filtration will be worn as well as proper hearing protection.

- B. The pit steel cover will be removed, exfoliated with a wire brush (while being held over the pit), and set aside.

- C. The residual material left in the pit will be removed with a shovel or other manual means. A wire brush will be used to remove any exfoliated material which is adhering to the sides of the pit. All materials will be placed in an NYSDOT approved 55 gallon drum.
- D. Once the residual materials have been removed from the pit interior, all piping will be removed from the pit. Specifically, all 2" and 1" copper piping will be cut flush with the room interior walls and capped. Capping will be completed by threading on a coupler and cap, soldering a cap in-place, or via the use of a "J" plug. All removed piping will be cut to manageable lengths, and placed in an NYSDOT approved 55 gallon drum.
- E. After the ancillary piping is removed from the pit, the 6" interior pit drain lines will be cut off flush with the pit interior walls. The interior of the drain lines will then be filled with a concrete plug. The removed piping will placed in a NYSDOT approved 55 gallon drum.
- F. The pit side walls will be demolished with either a sledge hammer, jack hammer, or a combination of manual and mechanically operated demolition tools. The concrete block will be placed in NYSDOT approved 55 gallon containers.
- G. Once the pit sidewalls have been demolished, the pit base will be razed with an electrically driven jack hammer or hammer and chisel (conditions depending). The pit base pieces will be placed in an NYSDOT approved 55 gallon drum.
- H. Once pit base has been removed, the subbase soils/material will be excavated (if feasible). Approximately 0.5 feet of this material will be removed (conditions permitting). This material/soil will placed in the same container as the pit residual materials.
- I. Following the removal of this subbase soils/materials, an endpoint sample will be collected as detailed in Section 3.2.4.
- J. Once the endpoint sample is collected, the excavation will be flagged off and secured. The sample will be submitted to the requisite laboratory for analysis.
- K. The excavation will be backfilled with clean-fill. A concrete cap will be installed and troweled flush to surrounding grade.

#### **3.1.4 Post-Excavation Soil Sampling Procedures**

Agfa will collect one post-excavation composite sample from the base of the razed water meter room pit using a stainless steel trowel. The proposed post-excavation sample designation will be WMRP-1. The sample will be comprised of soil collected from five (5) locations within the base of the excavation namely; the four pit side walls and from the midline of the pit floor.

#### **3.1.5 Post-Excavation Soil Sample Collection Methods**

The soil sample will be collected in accordance with the general soil sampling procedures stated in the Phase 1 RI Work Plan and the FSAP. The general soil sampling procedures detailed in Section 4.3.4 of the Phase 1 RI/FS Work Plan will be followed as applicable.

The sample will be placed in the requisite soil sampling containers and submitted to the designated laboratory. Soil sample designations and the analytical program summary for the IRM No. 1 program have been provided in table 3.

The stainless steel trowel will be decontaminated between sampling locations (as applicable) in accordance with the procedures detailed in Section 4.3.4.1 of the Phase 1 RI Work Plan, and applicable FSAP guidelines. The excavated soils and demolition debris will be placed in a designated on-site area, and managed as described in Section 6.0, Transportation and Disposal of IRM-Derived Waste.

### **3.1.6 *Post-Excavation Soil Sampling Analytical Protocols***

Each soil sample collected will be submitted to the project designated laboratory in accordance with the provisions of the QAPP. All samples collected will be analyzed for the full TCL/TAL. All sample analyses will be completed in conformance with the protocols and procedures detailed in the QAPP. Samples will be analyzed in accordance with NYSDEC ASP-CLP documentation dated December 1991.

### **3.1.7 *Quality Assurance/Quality Control***

QA/QC procedures detailed in the FSAP and QAPP will be followed for the collection of field, duplicate, and trip blanks and for internal laboratory analytical QA/QC. The list of field-specific QA/QC samples to be collected as part of the IRM No. 1 sampling program are detailed at the end of table 3.

## **3.2 *APC No. 8: Emulsion Building Sump***

### **3.2.1 *Background***

During the completion of the Phase 1 RI program, a boring, SB-20, was completed in the building interior at the location of the former Emulsion Building Sump. In accordance with the provisions of the Phase 1 RI Work Plan, the boring was not backfilled when completed. Instead, a locking four-inch "J" plug was installed in the boring opening. The total depth of this boring, as determined during a June 5, 1996 site visit was 11.5 feet below grade.

### **3.2.2 *IRM Purpose and Performance Standard***

The purpose of this IRM is to properly abandon the SB-20 borehole, and seal the borehole surface with an impenetrable material.

For this IRM, the Performance Standard that must be obtained to achieve a no further action determination at this APC is the proper backfilling and sealing of this bore hole in accordance with applicable standards; namely, filling the borehole with an impermeable, flexible material. When this Performance Standard has been met, this IRM action will be deemed successful.

### **3.2.3 IRM Methods**

Bentonite pellets will be placed in the borehole and activated with water. Once the bentonite has swelled to fill the borehole to an approximate depth of 1 feet below grade, a concrete plug will be installed above the bentonite. The concrete will be leveled flush to the building floor surface.

The following procedure will be followed to implement this IRM activity.

**3.2.3.1 Borehole Abandonment Setup.** Agfa will plan activities on-site and coordinate with an drilling or engineering/environmental services contractor. The specifications of the borehole abandonment program will be transmitted to the selected contractor. Final schedules for the abandonment action will be transmitted to NYSDEC approximately 5 days prior to program start.

#### **3.2.3.2 Borehole Program On-site Work.**

- A. An exclusion/hard hat zone will be established, and a health and safety tailgate meeting will be conducted. All drilling health and safety procedures, air monitoring requirements, and inspection procedures will be detailed.
- B. Bentonite pellets will be placed in the borehole in 1 foot lifts. The thickness of the lifts will be determined by using a weighted tape measure that is lowered down the borehole. Once the proper thickness of the bentonite pellets is emplaced, approximately 1 gallon of water will be added to the borehole to activate material. Bentonite pellets absorb the water and swell to approximately 5 times their original size.
- C. At the conclusion of approximately 15 minutes from the time the water is added to the pellets, the weighted tape will be lowered into the borehole to determine if in fact the pellets are expanding.
- D. Repeat Step B and C until the bentonite mixture has filled the borehole to approximately 1 foot below grade.
- E. Once the bentonite has been emplaced, a concrete plug will be installed above the bentonite and troweled flush to grade.

- F. The area will be secured, and reinspected one week later to check for settling. If settling has occurred, additional concrete will be added as required to bring the concrete plug up to the surrounding grade.
- G. Once the backfilling operation is complete, the area around the borehole will be painted with a grey flooring deck paint in order to seal the concrete surface.

### **3.3 Decontamination of Soil Sampling Equipment**

Equipment decontamination will be conducted in accordance with procedures detailed in the FSAP and Phase 1 RI Work Plan. The fenced area proximate to the Wastewater Treatment Plant (ECOPlant) will again be used to stage decontamination equipment, the designated decontamination area, and excavation supplies. The previously established potable water source will be used to supply all decontamination wash waters and fluids. Given that this water source has already been sampled, confirmatory potable water source and equipment sampling will not be performed.

### **3.4 Professional Engineer Oversight and Certification**

A New York State registered Professional Engineer (P.E.), or his/her designated representative will complete an inspection of each IRM program. The P.E. will observe a representative portion of the IRM field activities to insure that the tasks are being completed in accordance with the approved IRM No. 1 work plan. The P.E. will keep appropriate notes to document the observation activities. In addition, the P.E. will review and seal the IRM No. 1 completion report.

#### **4.0 ANALYTICAL DATA QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES**

##### **4.1 Laboratory Analytical Quality Assurance/Quality Control**

The QAPP, dated September 30, 1993, and prepared in support of the Phase 1 RI program will be followed by the laboratory as applicable during the implementation of the IRM No. 1 Work Plan. Specifically, all laboratory protocols, detection limits, and laboratory and internal data validation procedures will be followed. All samples submitted for analysis during the IRM No. 1 program will, as previously stated, be analyzed in accordance with NYSDEC ASP-CLP documentation dated December 1991.

The APC-specific target list of chemicals for the IRM No. 1 program has been limited to only those compounds/analytes of concern in each APC area based on the results of the Phase 1 RI. The method requirements and analyte list and specific detection limits included in the QAPP will be maintained.

All samples will be sent via courier to the project-designated laboratory, Laboratory Resources, Inc. located in Teterboro, New Jersey. Laboratory Resources, Inc., was also the project-designated laboratory for both Phase 1 and 2 RIs, and is NYSDOH ELAP approved. The laboratory will be contacted prior to sampling to obtain the appropriate sampling containers for the specific analytical procedures.

##### **4.2 External Third-Party Data Validation**

All media sample data from the IRM No. 1 program will be submitted to the project-designated, third-party data validation firm, Chemworld Environmental, Inc. (CEI). Data validation will be done in accordance with the specifications detailed in Section 10.0 of the QAPP.

## 5.0 SITE HEALTH AND SAFETY PLAN

All field work will be performed in accordance with the established site-specific Health and Safety Plan (HASP) dated September 30, 1993, and as augmented in each APC IRM "methods" section. The HASP was prepared in support of the Phase 1 RI program. The HASP was developed in conformance with the Occupational Safety and Health Administration (OSHA) requirements that are found in Title 29 of the Code of Federal Regulations, Section 1910.120. The purpose of the HASP is to establish procedures to protect the health and welfare of both investigative personnel and the surrounding community during the implementation of this Work Plan. All action levels, monitoring procedures, and requirements implemented as part of the Phase 1 and 2 RI programs will remain in force.

In general, the HASP includes emergency numbers and directions to the closest hospital, types of personal protection equipment required, site access and egress, air monitoring requirements and action levels, and appropriate Material Safety Data Sheets (MSDS). A copy of the HASP will be maintained on-site both in the designated field office (administration building) and with the field crews at all times. The Community Air Monitoring (CAM) Program established in the September 30, 1993, Phase 1 RI Work Plan will be implemented as well. During the implementation of this work scope no confined space entry is anticipated. However, if a confined space entry is required, then the appropriate Confined Space Entry OSHA regulations will be followed.

The HASP will be reviewed and signed by all Agfa, Fluor Daniel GTI, and subcontractor personnel who are involved in the IRM No. 1 field work. At the inception of all field days, a tailgate meeting will be conducted. The meeting will include a review of the health and safety protocols and actions levels, and a synopsis of the work to be completed that day. All health and safety monitoring completed during the implementation of the IRM No. 1 program will be documented on appropriate forms and maintained with the project files.

## **6.0 TRANSPORTATION AND DISPOSAL OF IRM-DERIVED WASTE**

### **6.1 Management of Excavation and Demolition Materials**

All excavation materials generated during this program will be placed in a to-be determined on-site location at the end of each work day. The APC No. 9 water meter room pit demolition debris will be placed in NYSDOT 55 gallon drums (A1A type), labeled, and staged in the decontamination area. In addition, any material generated that must be placed in drums will be staged in the same area pending disposition. The materials removed from the water meter room pit will be treated like hazardous waste, and will be removed from site and disposed of within 90 days from the date of generation.

### **6.2 Management of Decontamination Water**

Agfa will containerize all decontamination water in 55-gallon NYSDOT approved drums (A1A type). Once the analytical results of the soil, and construction/demolition debris disposal sampling program have been received, the decontamination water will be properly disposed of in accordance with applicable federal and state guidelines.

## **7.0 PROJECT REPORTS**

### **7.1 IRM No. 1 Report**

A report summarizing IRM No. 1 activities and findings will be prepared and submitted to the NYSDEC for review and comment. The IRM No. 1 report will include a discussion of field procedures, results, conclusions, and recommendations as appropriate. The report will be submitted to the NYSDEC 60 calendar days after the receipt of the validated laboratory data set.

### **7.2 Third Party Data Validation Report**

Chemworld Environmental, Inc. will prepare the project data validation report in accordance with the specifications detailed in the QAPP. The final data validation report will be submitted to Fluor Daniel GTI 30 calendar days after Chemworld Environmental, Inc. receives the final set of analytical data from the laboratory. The report will be included in the IRM No. 1 report as an appendix.

## 8.0 SCHEDULE

A schedule has been submitted to the NYSDEC with this submission and is presented as figure 5. Agfa anticipates that field work will commence approximately 20 days after NYSDEC approval of the IRM No. 1 Work Plan, barring any delays caused by weather or subcontractor availability.

## 9.0 REFERENCES

Cheney, M.; *Tesla: Man Out of Time*; Prentice-Hall, 1981.

ENVIRON (Report); *Risk Assessment, Phase 1 Remedial Investigation, Peerless Photo Products Site, ID NO. 1-52-031, Shoreham, New York*; June 1995.

EPA (Report); *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA-Interim Final*; USEPA 540/G-89 004, October, 1988.

GT Engineering PC; *Phase 2 Remedial Investigation Work Plan for the Peerless Photo Products, Inc. Site, Shoreham, New York*; May 17, 1996.

Groundwater Technology, Inc. (Report); *Underground Storage Tank Removal Program, Agfa Corporation, Shoreham, New York*; 1991.

Groundwater Technology, Inc.; *Remedial Investigation/Feasibility Study Work Plan for the Peerless Photo Products, Inc. Site, Shoreham, New York*; September 30, 1993.

Groundwater Technology, Inc. (Report); *Class V Injection Well Cleanout and Closure Implementation Report, Agfa Division of Bayer Corporation (Peerless Photo Site ID No. 1-52-031) Shoreham, New York*; June 8, 1995.

Groundwater Technology, Inc. (Report); *Phase I Remedial Investigation Report, Peerless Photo Products Site (ID No. 1-52-031), Route 25A and Randall Road, Shoreham, New York*; June 16, 1995.

O'Toole, M. J., Jr., (Memorandum); *Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels*; NYSDEC TAGM NO. HWR-94-4046, Revised January 24, 1994.

O'Toole, M. J., Jr., (Memorandum); *Division Technical and Administrative Guidance Memorandum: Interim Remedial Measures*; NYSDEC TAGM NO. HWR-92-4048, December 9, 1992.

O'Toole, M. J., Jr., (Memorandum); *Division Technical and Administrative Guidance Memorandum: Interim Remedial Measures - Procedures*; NYSDEC TAGM NO. HWR-92-4042, June 1, 1992.

Woodward-Clyde, Consultants, Inc. (Report for NYSDEC); *Phase I Preliminary Investigation Report, Peerless Photo Products Site, ID No. 1-52-031, Shoreham, New York*; 1983.

TABLE 1

Phase 1 RI Program — Summary of Proposed APC Actions  
Peerless Photo Products Site (ID No. 1-52-031)  
Shoreham, New York

APC No. and Description	Action to be Taken			
	No Further Action	Phase 2 RI	Feasibility Study	Interim Remedial Measure
No. 1 — Former Drum Location		x		
No. 2 — Former Drum Storage Area	x			
No. 3 — Northeast Aerial Photo Anomaly	x			
No. 4 — Three Former Underground Storage Tank (UST) Locations	x			
No. 5 — East Soil Storage Area	x			
No. 6 — West Soil Storage Area		x		
No. 7 — Primary Wastewater Pump Station	x			
No. 8 — Emulsion Building Sump				x
No. 9 — Water Meter Room Pit				x
No. 10 — Tesla Tower Base			x	
No. 11 — Long Island Lighting Company (LILCO) Right-of-Way		x		
No. 12 — North Recharge Basins			x	
Groundwater		x		

**TABLE 2**

**Phase 1 RI Work Plan Documents to be  
Used During the IRM No. 1 Program  
Peerless Photo Products Site (ID No. 1-52-031)  
Shoreham, New York**

<b>Title of Phase 1 RI Work Plan Document</b>	<b>Figures/Tables Not applicable to the IRM No. 1 Program</b>	<b>IRM No. 1 Figures/Tables Replacements</b>
Phase 1 RI/FS Work Plan	Tables 3-6 and 3-7  Figures 3-1 and 3-2	Table 3 (Soil sampling summaries)  Figures 3 (APC Locations and Sampling Locations),
Quality Assurance Project Plan (QAPP)	Table 6-2  Figures — none	Tables 3  Figures 3, and 4
Field Sampling and Analysis Plan (FSAP)	Tables 1-1 and 1-1  Figures 1-2 and 1-3	Tables 3  Figure 3
Citizen's Participation Plan (CPP)	none	not applicable
Health and Safety Plan (HASP)	none	not applicable

**TABLE 3**

**Soil Sampling Program Summary  
Interim Remedial Measures Work Plan  
Peerless Photo Products Site (ID No. 1-52-031)  
Shoreham, New York**

<b>Sampling/APC Location</b>	<b>Sample ID (Internal)</b>	<b>Matrix</b>	<b>Quantity</b>	<b>Analysis</b>
APC No. 9: Water Meter Room Pit	WMRP-1	soil	1	Full TCL/TAL
<b>QA/QC Samples</b>				
Field Blanks: 1 per week	FB-X (date)	water	1	TAL Metals
Decon Rinsate Samples: 1 per day	Decon-a (date) Decon-b (date) Decon-c (date)	water water water	1 1 1	TAL Metals TAL Metals Full TCL/TAL
Soil Sample Duplicates: 1 per 20	WMRP-1 (Dup)	soil	1	Full TCL/TAL
Trip Blanks: 1 per 20 (water meter room pit only)	Trip (date)	water	1	TCL VOAs

**Key**

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- APC: Area of Potential Concern.
- date: Date on which sample was collected.
- TAL Metals: Target Analyte List Metals analyzed in accordance with NYSDEC ASP CLP (12/91) protocols.
- TCL: Target Compound List
- 1 per day: As prescribed by the September 23, 1993, QAPP, Section 11, Part 11.1.1, equipment rinsate samples will be collected at a rate of one per sampling day.
- 1 per 20: As prescribed by the September 23, 1993, QAPP, Section 11, Part 11.1.1, the frequency of samples collected will be at a rate of 1 for every 20 media-specific samples collected and submitted to the laboratory for analysis.