

7/20/91

*No revisions made to this document*  
10/11/91 *Reviewed 10/28/91*

**INDUSTRIAL  
WASTEWATER TREATMENT PLANT  
DECOMMISSIONING REPORT**

*11/6/91 Report Accepted*

**PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK**

**Prepared for:**

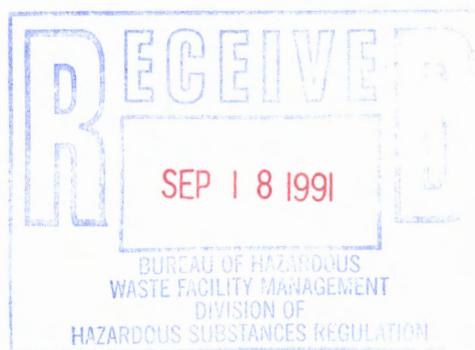
**PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK**

**Prepared by:**

**KEYSTONE ENVIRONMENTAL RESOURCES, INC.  
3000 TECH CENTER DRIVE  
MONROEVILLE, PA 15146**

**PROJECT NO. 288788**

**SEPTEMBER 1991**



PHILIPS DISPLAY COMPONENTS  
SENECA FALLS, NEW YORK

WASTEWATER TREATMENT PLANT  
DECOMMISSIONING REPORT

|   | Page      |
|---|-----------|
| <b>1.0 INTRODUCTION.....</b>  | <b>1</b>  |
| 1.1 Background .....  | 1         |
| 1.2 Purpose .....   | 2         |
| 1.3 Objectives and Methodology.....   | 3         |
| <b>2.0 REGULATORY CONSIDERATIONS.....</b>   | <b>5</b>  |
| 2.1 Hazardous Waste Management .....  | 5         |
| 2.1.1 Regulatory Status.....  | 5         |
| 2.1.2 Closure Time for Hazardous Removal .....                                      | 6         |
| 2.2 Wastewater Discharge .....  | 8         |
| 2.3 Waste Disposal.....   | 8         |
| <b>3.0 DEACTIVATION PROCEDURES.....</b>   | <b>10</b> |
| 3.1 Final Cleaning of the Primary Treatment and Two<br>Pretreatment Facilities..... | 12        |
| 3.2 Decontamination of Outside Lift Station .....                                   | 13        |
| 3.3 Spent Demineralizer Regenerant .....  | 13        |
| 3.4 Data Collected.....   | 13        |
| <b>4.0 FACILITY ASSESSMENT AFTER DEACTIVATION.....</b>                              | <b>14</b> |
| 4.1 Data Collection .....   | 14        |
| 4.2 Units and Areas Decontaminated.....   | 14        |
| 4.3 Waste Disposal.....   | 14        |
| 4.4 Conclusion.....   | 15        |

## TABLE OF CONTENTS (Continued)

### LIST OF FIGURES

|          | Page  |
|----------|---|
| Figure 1 | Overall Facility Plot Plan.....                           |
| Figure 2 | General Wastewater Treatment Plant Layout.....            |
| Figure 3 | Batch Lead Pretreatment Facility.....                     |
| Figure 4 | Batch Chromium Pretreatment Facility.....                 |
| Figure 5 | Schematic Flow Diagram of Facility Outfalls .....         |
| Figure 6 | Spent Demineralizer Regenerant Neutralization System..... |

### APPENDICES

- Appendix A Waste Analyses and Manifests
- Appendix B NYSPDES Permits From 1972 to 1990
- Appendix C Field Daily Log Sheets

**PHILIPS DISPLAY COMPONENTS  
SENECA FALLS, NEW YORK**

**WASTEWATER TREATMENT PLANT  
DECOMMISSIONING REPORT**

|  | <b>Page</b> |
|--|-------------|
| <b>1.0 INTRODUCTION.....</b>   | <b>1</b>    |
| 1.1 Background.....  | 1           |
| 1.2 Purpose.....   | 2           |
| 1.3 Objectives and Methodology .....   | 3           |
| <b>2.0 REGULATORY CONSIDERATIONS .....</b>   | <b>5</b>    |
| 2.1 Hazardous Waste Management .....   | 5           |
| 2.1.1 Regulatory Status.....   | 5           |
| 2.1.2 Closure Time for Hazardous Removal .....                                       | 6           |
| 2.2 Wastewater Discharge .....   | 8           |
| 2.3 Waste Disposal.....  | 8           |
| <b>3.0 DEACTIVATION PROCEDURES .....</b>   | <b>10</b>   |
| 3.1 Final Cleaning of the Primary Treatment and Two<br>Pretreatment Facilities ..... | 12          |
| 3.2 Decontamination of Outside Lift Station .....                                    | 13          |
| 3.3 Spent Demineralizer Regenerant .....   | 13          |
| 3.4 Data Collected .....   | 13          |
| <b>4.0 FACILITY ASSESSMENT AFTER DEACTIVATION.....</b>                               | <b>14</b>   |
| 4.1 Data Collection.....   | 14          |
| 4.2 Units and Areas Decontaminated .....   | 14          |
| 4.3 Waste Disposal.....  | 14          |
| 4.4 Conclusion .....   | 15          |

## TABLE OF CONTENTS (Continued)

### LIST OF FIGURES

|          | Page  |    |
|----------|---|----|
| Figure 1 | Overall Facility Plot Plan .....                          | 1a |
| Figure 2 | General Wastewater Treatment Plant Layout.....            | 1b |
| Figure 3 | Batch Lead Pretreatment Facility.....                     | 1c |
| Figure 4 | Batch Chromium Pretreatment Facility.....                 | 1d |
| Figure 5 | Schematic Flow Diagram of Facility Outfalls.....          | 2a |
| Figure 6 | Spent Demineralizer Regenerant Neutralization System..... | 3a |

### APPENDICES

- Appendix A Waste Analyses and Manifests
- Appendix B NYSPDES Permits From 1972 to 1990
- Appendix C Field Daily Log Sheets

**PHILIPS DISPLAY COMPONENTS  
SENECA FALLS, NEW YORK**

**INDUSTRIAL WASTEWATER TREATMENT PLANT  
DECOMMISSIONING REPORT**

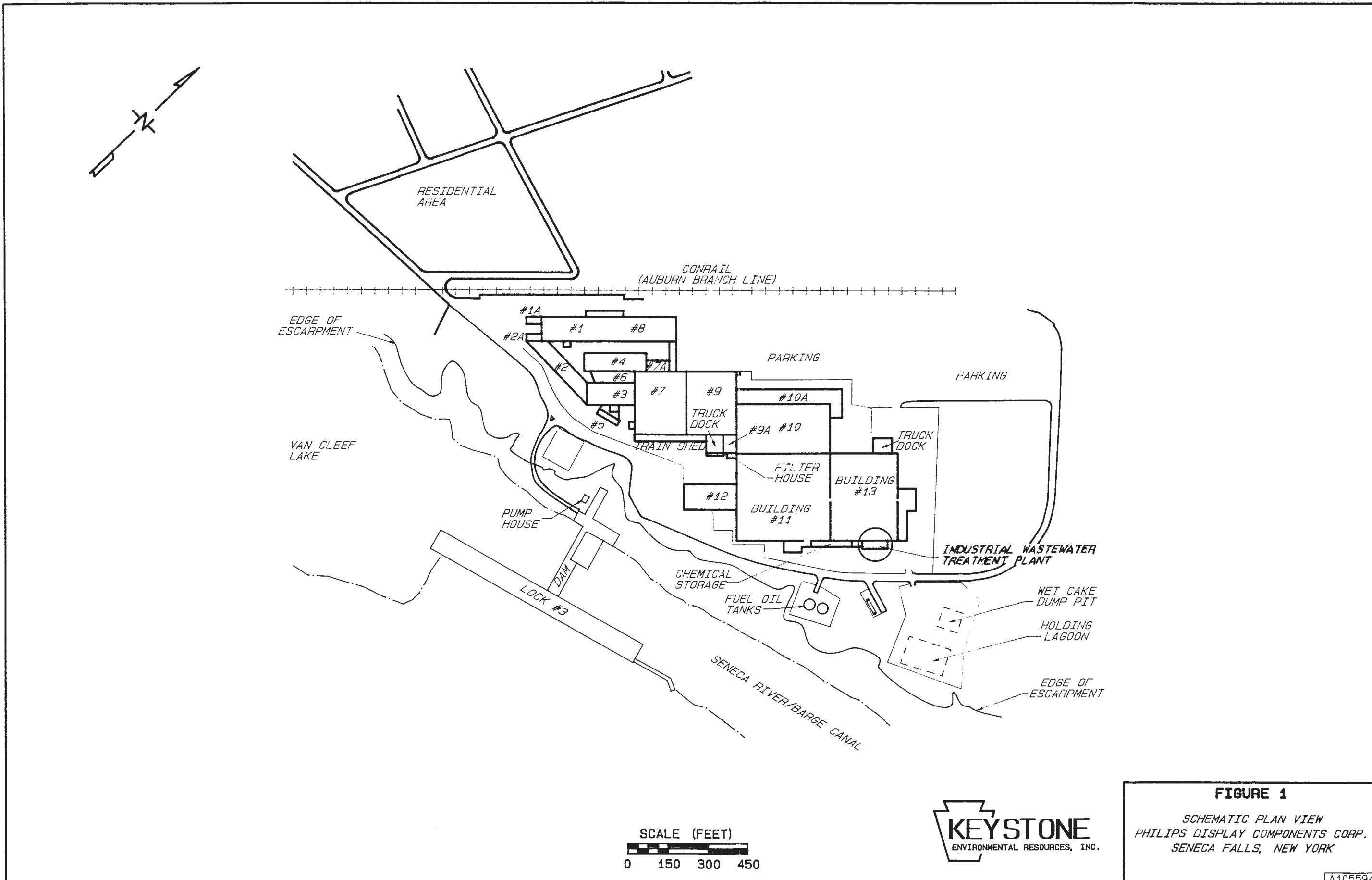
**1.0 INTRODUCTION**

In 1948, Sylvania purchased the Seneca Falls New York facility from Rumsey Pump, and began manufacturing black and white television tubes. GTE purchased the facility in 1960 and switched to manufacturing only color television tubes in 1962. GTE segregated the facility sewers for treated and non-treated wastewaters and constructed the Industrial Wastewater Treatment Plant (IWTP) shown in Figure 1 in 1971 and 1972. GTE sold the facility to Philips Display Components Company (Philips) in 1981. Philips operated the manufacturing facility until October 1986, and sold it to the Seneca County Industrial Development Agency (IDA) on December 5, 1989. From November 1986 to June 1989, the facility was partially occupied by Philips headquarters operations - offices and laboratories. Since 1986, the manufacturing equipment was removed from the buildings; however, all the utilities are still functional. Since the sale, the facility has been managed for the Seneca County IDA by the Landsman Development Corporation, who is leasing out space for warehousing at the present time.

The facility is bordered by Van Cleef Lake and the Seneca River/Barge Canal to the south, underdeveloped and agricultural areas to the north and east and a residential area to the west. A schematic plan view of the facility and Industrial Wastewater Treatment Plant (IWTP) is shown in Figure 1.

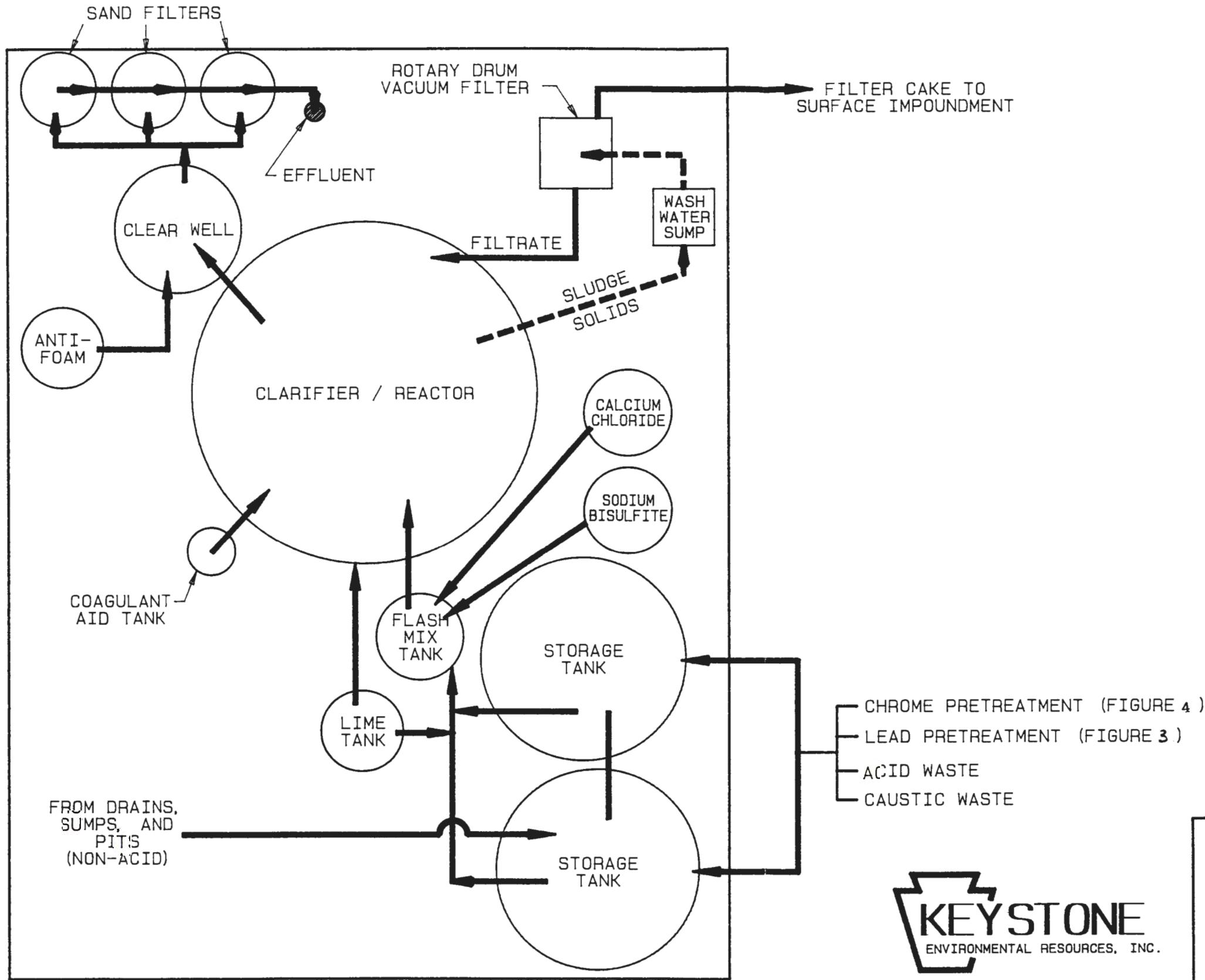
**1.1 Background**

The IWTP at the closed Philips facility was constructed by GTE in 1971 and 1972, started up and permitted in August 1972, and operated by GTE until 1981, when the facility was acquired by Philips. Philips operated the facility until January 1990, when decommission began. Since 1986, the IWTP was operated, as required, on a batch basis, treating wastewater from the laboratories. The IWTP was



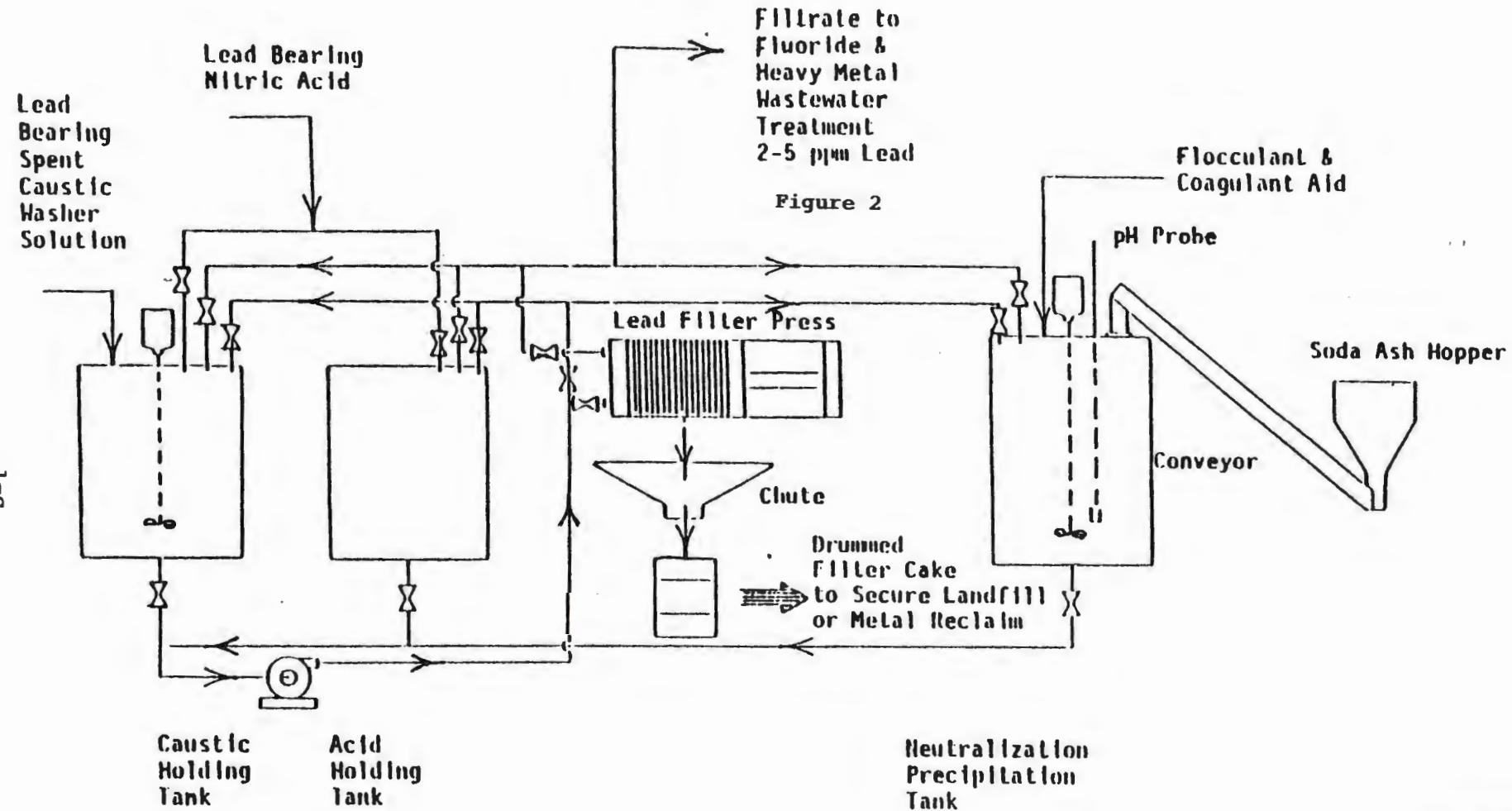
**FIGURE 1**  
SCHEMATIC PLAN VIEW  
PHILIPS DISPLAY COMPONENTS CORP.  
SENECA FALLS, NEW YORK

A105594



**FIGURE 2**  
PHILIPS DISPLAY COMPONENTS  
IWTP DECOMMISSIONING REPORT  
INDUSTRIAL WASTEWATER  
TREATMENT PLANT  
GENERAL LAYOUT  
SENECA FALLS PLANT

C68338



## "Batch Lead Wastewater Pretreatment Facilities"

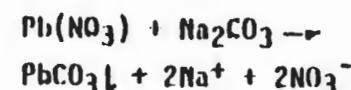


Figure 3

PHILIPS ECG INC.  
SENECA FALLS PLANT

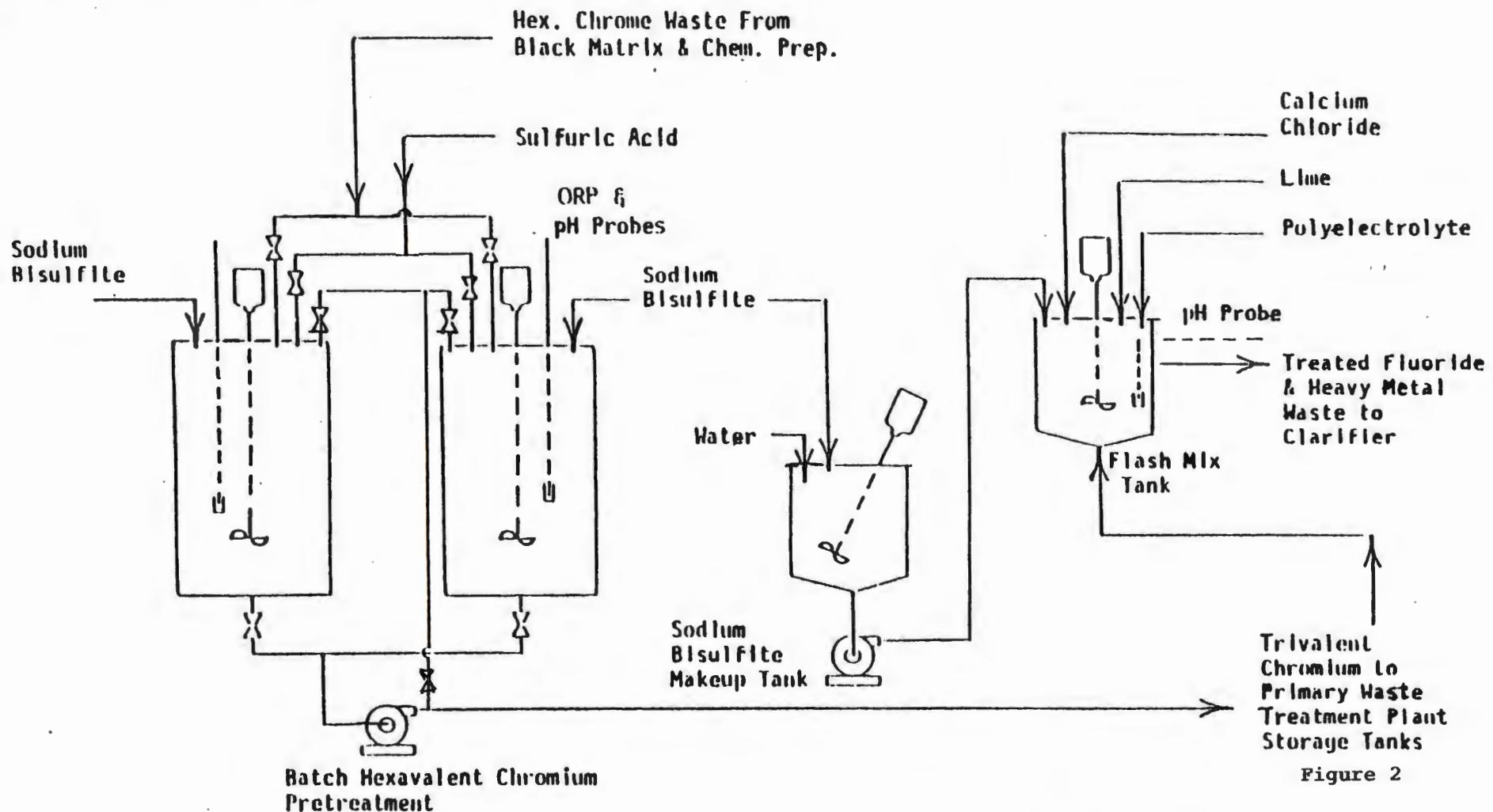


Figure 2

"Hexavalent Chromium Reduction Pretreatment"  $Cr^{6+} \rightarrow Cr^{3+}$  & Trivalent Chromium Reoxidation Prevention to Enhance Precipitation

$$2 Cr^{3+} + 3 F^- + 3 Ca(OH)_2 \rightarrow 2 Cr(OH)_3 \downarrow + 3 CaF_2 \downarrow$$

Figure 4

PHILIPS ECG INC.  
SENECA FALLS PLANT

decontaminated (environmentally cleaned) and the equipment demobilized in January and February 1990, so that the IWTP can be abandoned in place for its decommission by Philips. The decontaminated tanks, equipment and piping will remain in place for its new owner, Seneca County IDA. However, the Lead Pretreatment Plant was relocated to the Philip's Ottawa Ohio facility following decontamination and dismantling. The general layout of the IWTP is shown in Figure 2.

The IWTP treated hydrofluoric acid, chrome and lead bearing caustic and acid wastewaters generated in the manufacture of color television glass and metal tube components, including cleaning, finishing, coating and tube salvage operations. Before going to the Primary Treatment Plant (Figure 2). The lead bearing nitric acid wastewaters went to the Batch Lead Wastewater Pretreatment Plant (Figure 3), and the chromium wastewaters went to the Batch Chromium Pretreatment Plant (Figure 4). The hydrofluoric (HF) acid wastewaters were pumped through the outside lift station to the Primary Treatment Plant (Figure 2). The treated wastewaters from the IWTP were monitored at the NYSPDES permitted 004 outfall and discharged to the Wastewater Effluent Settling Lagoon, which was RCRA closed in 1987. The Effluent Lagoon overflow discharged through the NYSPDES permitted (Appendix B) 001 outfall to the Seneca River/Barge Canal (Figure 5). The sludge from the IWTP was placed in the Wastewater Treatment Plant Sludge Holding Lagoon, which was also RCRA closed in 1987. These closed lagoons are shown in Figure 1.

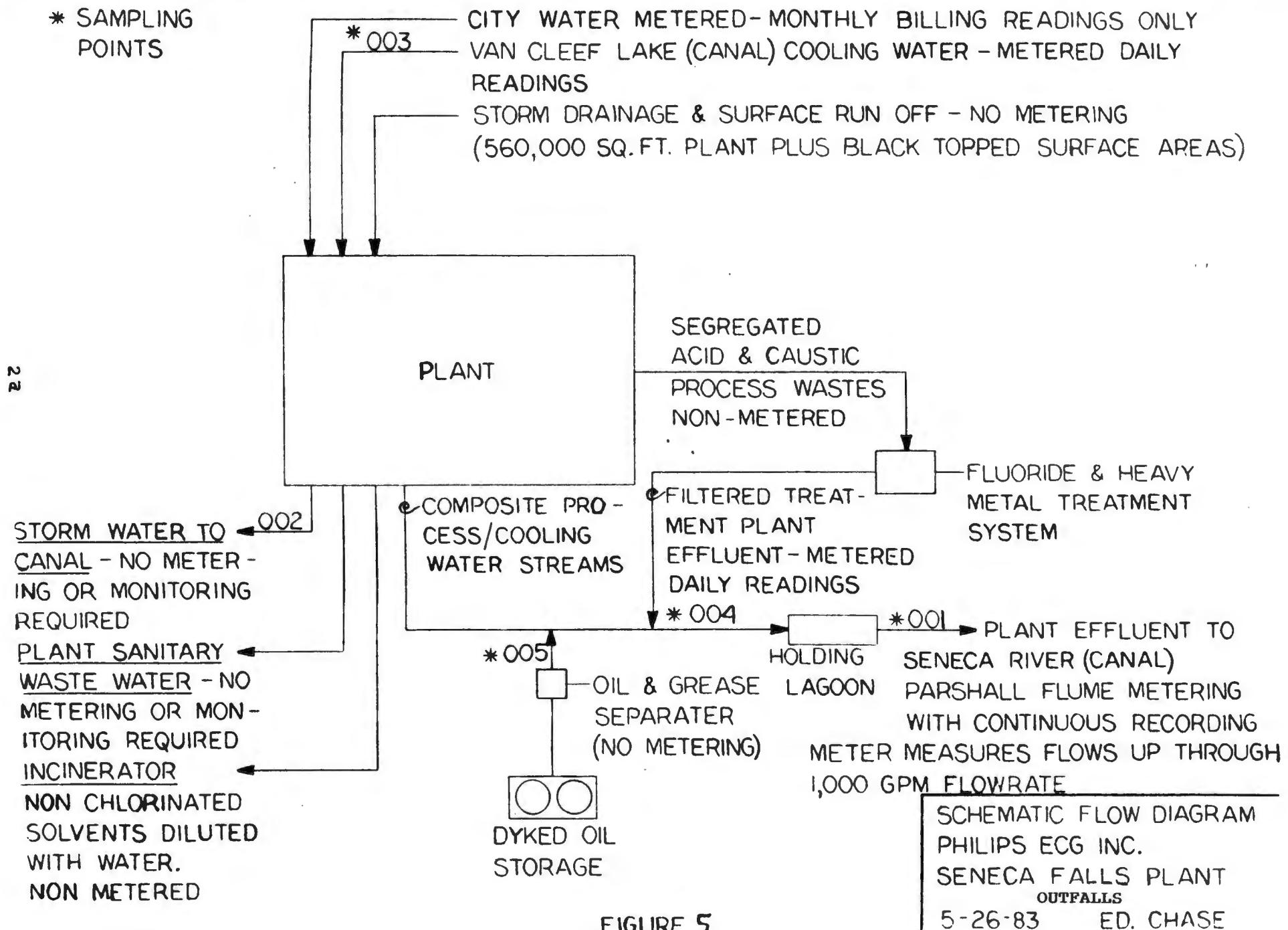
In 1987, after the facility shutdown, the IWTP effluent line was piped directly to the Village of Seneca Falls sanitary waste line in building #13, in lieu of outfall 001. The IWTP effluent was monitored for NYSPDES permit limits until decontamination in 1990.

## 1.2 Purpose

In January and February 1990, Philips hired Entech Management Services Corporation (Entech) to decontaminate the IWTP and demobilize all equipment for decommission. This report discusses and evaluates the Entech deactivation

\* SAMPLING POINTS

22



procedures and records, to assure the New York State Department of Environmental Concerns (NYSDEC) that the IWTP decontamination and decommission has been performed in accordance with applicable Federal, State and Local regulations.

Philips decommissioned the IWTP, so that the area will not be a safety or environmental hazard, and comply with all legal requirements.

The IWTP was decommissioned based on current regulations, which exempt wastewater treatment plants from hazardous waste tank regulations (Section 2).

The cleaning of the IWTP involved removing wastewater and sludges from the tanks and associated piping, by hydroblasting, and triple rinsing the facility and subsequently sampling the sludges and wash waters for disposal profiles. Philips feels that the IWTP has been adequately decontaminated and that no environmental concerns should arise from the IWTP in the future.

In addition, The Spent Demineralizer Regenerant Neutralization System SDRNS (Figure 6), which is separate from the IWTP, was decommissioned and is included in this report.

### **1.3 Objectives and Methodology**

To verify that the IWTP has been adequately decontaminated and that no environmental concerns should arise in the future, this report focuses on how the decontamination was accomplished and on the analytical results from the waste sampling (Appendix A). The methodology is shown in the form of written procedures (Section 3) and actual daily log sheets (Appendix C). The analytical results and Hazardous Waste Disposal Manifests are shown in Appendix A.

This decommission evaluation was performed to:

- o      Complete the RCRA Facility Assessment (RFA) for closure of the Philips facility.**

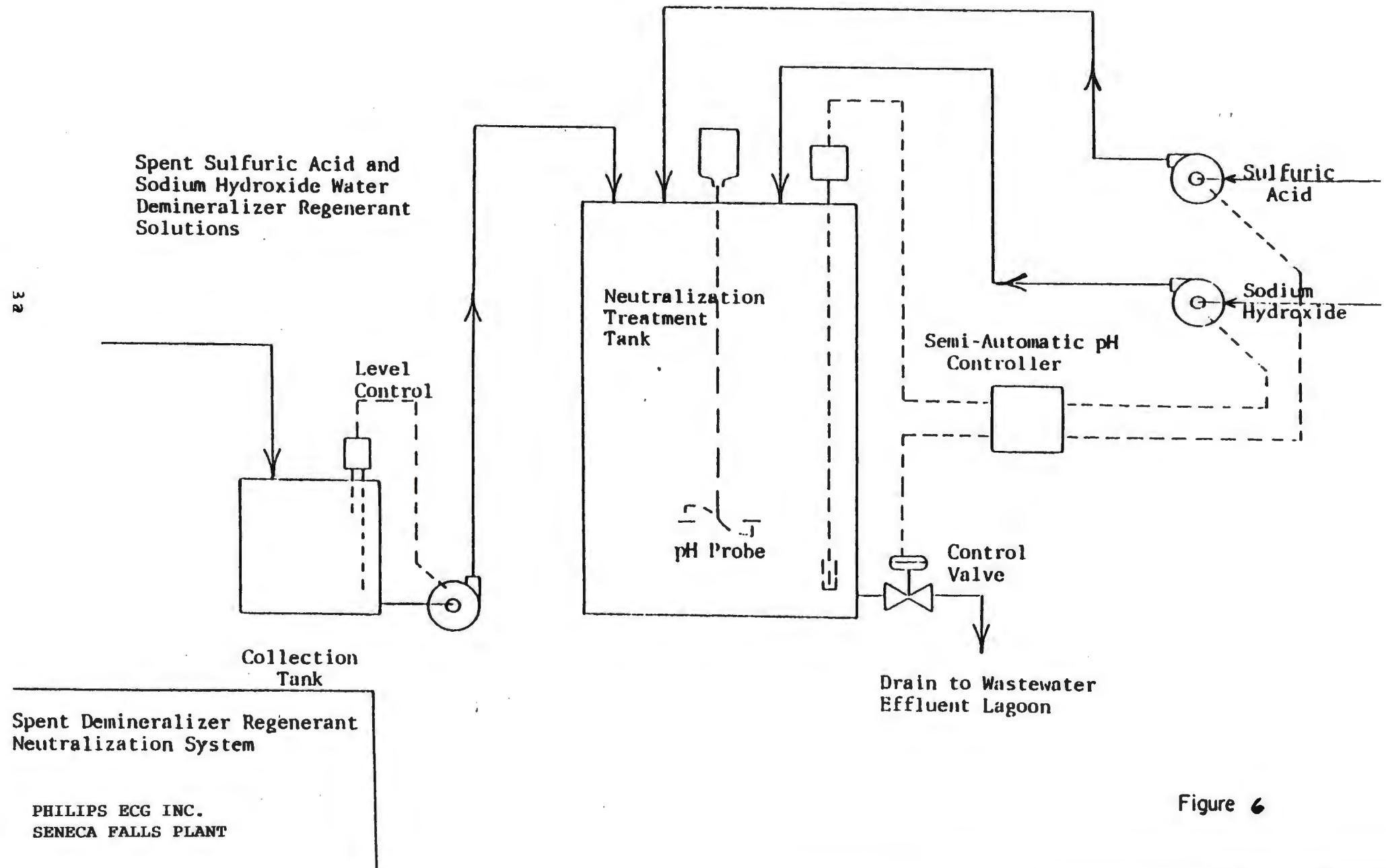


Figure 6

- o Assess regulatory requirements pertaining to wastewater treatment facility shutdown, decontamination and decommission;
- o Verify that IWTP units, process equipment, and areas were properly decontaminated;
- o Review procedures employed to effect decontamination and disposal;
- o Identify any areas requiring additional investigation and decontamination;
- o Identify any other specific decommission action required;

To meet these objectives, Keystone viewed the status of the Philips IWTP in February and March, 1990. In addition to observing the decommissioned IWTP areas, Keystone interviewed engineering personnel, reviewed available file information, and obtained drawings depicting the areas.

In addition, it should be noted that no sampling activities were conducted (or required) as part of this evaluation of the Philips IWTP.

## **2.0 REGULATORY CONSIDERATIONS**

Regulatory considerations of importance in evaluating environmental cleanup standards include those related to the following:

- o Hazardous waste management (affecting cleanup time frame and classification of residues generated during cleanup);
- o Wastewater discharge (affecting disposition of decontamination rinse waters);

As applicable to the Philips IWTP, regulations in each of these areas are discussed below.

### **2.1 Hazardous Waste Management**

#### **2.1.1 Regulatory Status**

Hazardous waste was generated in television glass and metal tube component fabrication, cleaning, finishing, coating, and tube salvage operations. The closure plan for the facility includes the removal of all hazardous solid wastes from all identified units, in addition to the removal of liquids and materials which have come in contact with the hazardous waste, and in addition to soil testing at all identified units to assess the extent of subsurface contamination, if any.

Section 3004 (U) of RCRA requires corrective action for all releases of hazardous waste or hazardous constituents from any Solid Waste Management Unit (SWMU), regardless of the time the waste was placed in such a unit. The facility is currently in the first part of the RCRA corrective action program.

As required for generators of hazardous waste, Philips filed Notification of Hazardous Waste Activity for the Seneca Falls Plant. Subsequently the Philips Plant was assigned U.S. EPA I.D. Number NYD002246015. The plant's hazardous waste management facilities, pertaining to the IWTP, are exempt from permitting

requirements per 40 CFR 260.10, 264.1 (g)(6), 265.1 (g) (6) and 270.1 (g) (6) and 6NYCRR373-1.1d. The Philips facility and the RCRA closed surface impoundments (lagoons) have interim status, until their closure is complete and certified. The entire facility and lagoons are being closed in accordance with RCRA requirements.

Because of this interim status for the facility and surface impoundments, the IWTP may be subject to RCRA standards related to closure (i.e., formal closure plans or financial assurance requirements). RCRA plant-wide corrective action requirements (triggered by detection of levels of hazardous waste constituents in the groundwater) are in place for the closed impoundments.

### **2.1.2 Closure Time for Hazardous Removal**

While the IWTP is not a hazardous waste treatment, storage, or disposal unit, the IWTP has reported generation and manifested disposal of hazardous wastes with the following EPA Waste Numbers in reports filed with NYSDEC:

#### **Philips, Seneca Falls (IWTP)**

- o D007 and D008 (Wastewater Treatment Sludge); Hazardous Waste Solid, EP Toxic for Chromium and Lead.**

However, the IWTP sludge is not a listed hazardous waste. The IWTP sludge removed for decommission did not exhibit hazardous waste characteristics, and was disposed as a non-regulated waste (Appendix A).

With regard to IWTP units and equipment in which these hazardous wastewaters are processed, it should be noted that such equipment may be considered subject to hazardous waste management standards (such as a formal closure plan) if the hazardous wastes are not removed within 90 days following shutdown. Also, in accordance with RCRA requirements, Philips must complete partial and final closure activities in accordance with an approved closure plan, and within 180 days

after receiving the final volume of hazardous wastes as the hazardous waste management unit or facility.

However, the Philips IWTP is exempt from certain hazardous waste regulations and notification requirements (Section 3010 RCRA) until the waste exits the unit in which it was generated. For decommission, this is when the hazardous waste is removed for disposal.

The IWTP is not RCRA permitted either on an interim or final basis, because of exemptions due to "permit by rule" i.e., permitted under the New York State Pollutant Discharge Elimination System (NYSPDES) under Permit NY-0001228 (Appendix B). However, there were hazardous wastes, as described previously, in the system; therefore, all of the wastewater treatment units are Solid Waste Management Units (SWMUs) as defined by the Hazardous and Solid Waste Amendments of 1984. Additional information required by the Hazardous and Solid Waste Amendment of 1984 is:

Information on Solid Waste Management Units (SWMUs) and releases from these units. [40 CFR 264.101, Section 3004 (u)]

Financial responsibility for corrective action. [40 CFR 264.101(b) Section 3304(a) (6)]

Philips indicates that there were no known releases of hazardous waste from the IWTP. Corrective action measures are in place by Philips for solid waste management unit such as the closed impoundments, which were clean closed.

In summary, the IWTP has been decommissioned properly and is exempt from RCRA closure requirements based on the following interpretations:

- o The IWTP is exempt from RCRA due to "permit by rule".
- o There were no known releases from the IWTP/SWMU's.
- o The IWTF sludge is not a listed hazardous waste.

- o The waste sludge removed from the IWTP for decommission was a non-regulated waste.
- o IWTP raw materials exhibiting hazardous characteristics were manifested and disposed in a Class 1 secure landfill.

## **2.2 Wastewater Discharge**

The Philips IWTP is permitted by the New York Department of Environmental Conservation (NYSPDES NY-0001228) for an outfall containing discharges of treated wastewater to the Seneca River/Barge Canal. The permits issued since the IWTP commenced operations on August 11, 1972 are listed in Appendix B. Copies of the permits since 1980 are also provided in Appendix B.

The 1980-81 permit, which was in effect until 1985, covered IWTP effluent monitoring at outfall 004 to the Wastewater Effluent Settling Lagoon and the Lagoon Effluent monitoring at outfall 001 to the canal as shown in Figure 5. In 1985, the final permit in effect until June 1, 1990 was issued and only covered the 001 outfall of the Lagoon effluent to the canal.

In 1987, after facility shutdown, the IWTP effluent line was connected to the village of Seneca Falls sanitary waste line, in building #13, and outfall 001 was abandoned. The permit to discharge was cancelled on February 1, 1990 at the request of the new owner. This permit regulated the discharge from the Philip IWTP to discharge limitations as imposed by the State of New York. Rinsewaters generated during sump, pit and sewer cleanup were routed to the wastewater treatment plant. Testing of these rinsewaters was performed to ensure that they could be discharged in this manner.

## **2.3 Hazardous Waste Disposal**

Disposal of all raw materials hazardous waste from the IWTP decommission were manifested and disposed at a Class 1 secure landfill. Sludge from the IWTP filter is not a listed hazardous waste. In the past, during plant production, the IWTP sludge did on occasion show non-hazardous characteristics. After plant production was

shut down in 1986, the IWTP operated with only laboratory wastewater until 1989. The Entech composite sampling of the IWTP sludge during the decommissioning did not show hazardous waste characteristics. For this decommission the sludge and filter media were shipped in bulk to Frontier Chemical as nonregulated waste (Appendix A). The manifest required to transport the other raw material hazardous waste from the IWTP to the disposal facility are provided in Appendix A. A predisposal analysis, required by the disposal facility, to determine that the waste was acceptable to their facility, are also provided in Appendix A.

A description of the origin of samples, that were analyzed for the Manifests in Appendix A, and correlation of the sample number with the sample locations is as follows:

| <u>Manifest No.<br/>or Waste Disposal Description</u>  | <u>Sample No.</u>        | <u>Sample Location</u>  |
|--|--------------------------|---|
| NYB-1838997  | N/A                      | Residual lime slurry in<br>IWTP Lime Makeup Tank  |
| Frank's Vacuum Truck Service to<br>Frontier Chemical Waste Processs, Inc.<br>Non-Hazardous Sludge (2000-145)<br>-4,910 gallons | 900109.047<br>891227.016 | #002SF Sludge from IWTP<br>tanks<br>#001SF IWTP Clarifier sludge  |
| NYB 1839123  | N/A                      | Residual paint sludge from<br>plant paint shop  |
| NYB 1839114<br>Item 15-26 drums also<br>shipped  | 900212-051               | Filter and Spill Soil from an<br>unauthorized dumping on site<br>by a subcontractor, which was<br>reported to the DEC, properly<br>cleaned-up and the disposal<br>manifested as a non-hazardous<br>waste. |

### **3.0 DEACTIVATION PROCEDURES**

The following decontamination and disposal procedures were used by Entech to clean the IWTP equipment, piping, sumps and general building area. Refer to Appendix C for Entech Daily Field Log Sheets.

- a. Pumpable process waste inventory and bulk raw material was removed from tanks and process equipment until only the non-pumpable residue remained.
- b. Non-pumpable process waste and bulk raw material residues were high pressure washed using a 250 psi and a 3000 psi high pressure washer to make them flowable.
- c. All process tanks and equipment in the IWTP were triple rinsed after the power wash to complete the decontamination. The final cleaning procedures recommended and followed for the Primary Treatment and Two Pretreatment Facilities, and the Outside Lift Station are provided in Sections 3.1 and 3.2.
- d. All rinse waters were treated in the IWTP by pumping through the sandfilters and the discharge was monitored for NYSPDES parameters as specified Permit #NY0001228 (Appendix B).
- e. All sludge, filter media and solid wastes were analyzed for the four hazardous characteristics and for volatile organic chemicals per EPA Method 8240 (Appendix A).
- f. All sludges were vacuumed by Frank's Vacuum Truck Service into tank trucks and transported for disposal to Frontier Chemical Waste Process in Niagara Falls, New

York as a non-regulated waste (Refer to Appendix A for analyses).

- g. All solids were drummed in D.O.T. 17H drums supplied by Philips, labelled and shipped off for disposal at Frontier Chemical. (Refer to Appendix A for manifest copies and analyses).
- h. The filter media from the filtration system was vacuumed into drums for disposal at Frontier as a non-regulated material. (Refer to Appendix A for analysis).
- i. The sulfuric acid solutions from the water demineralization system (Figure 6) were shipped to the Philips Ottawa, Ohio facility. The sulfuric acid sludge and rinse waters generated from tank triple rinsing were drummed and sent to Frontier Chemical for disposal. (Refer to Manifest in Appendix A).
- j. The caustic waste solutions from the water demineralization system were vacuumed into tank truck by Franks' Vacuum Truck Service and Transported to Frontier Chemical for disposal. The rinse waters generated from tank triple rinsing were drummed and transported to Frontier Chemical for disposal. (Refer to Appendix A for manifests).
- k. All IWTP equipment was demobilized for decommission.

**3.1 Final Cleaning of the Primary Treatment and Two Pretreatment Facilities (Recommended Procedure from Volume I of the October 1988 Sample Visit Work Plan, Management Plan)**

- a. Recirculate rinse water from the Lead Neutralization Precipitation Tank, through filter press, and pump to the primary wastewater treatment facility (See Figures 2 and 3).
- b. Final flush and rinse of Demineralizer Spent Regenerant Neutralization system is discharged to non-treated drain as per standard operating procedure for the system following neutralization check.
- c. Add rinse water from the reagent feed tanks to the Batch Hexavalent Chromium Pretreatment Tanks and recirculate in the tanks (See Figure 4). Pump flushing and rinsing solution through the flash mix tank to the primary wastewater treatment plant clarifier (See Figure 2).
- d. Remove all residues from the lead and chromium pretreatment plants to drums for disposal as hazardous wastes .
- e. All wastes, flushes and rinses to be pumped from the inside sumps, and pretreatment plants to the Primary Wastewater Treatment Plant for treatment.
- f. Final effluents to be monitored and checked for current SPDES parameters as specified by NYSPDES Permit #NY0001228 (Appendix B).
- g. After all residual liquid wastes are treated, solid residues and sludges are vacuumed from storage tank, flash mix tank and clarifier.

The system then is flushed with final rinse and pumped through the sandfilters for discharge, monitoring for current NYSPDES parameters as specified by Permit #NY0001228 (Appendix B).

### **3.2 Decontamination of Outside Lift Station (See Figure 1)**

The outside fluoride sump was flushed with high pressure water and the rinse water was pumped to the treatment plant. The IWTP effluent was monitored for NYSPDES Permit limitations before it was discharged to the Village.

### **3.3 Spent Demineralizer Regenerant Neutralization System (Figure 3)**

The Spent Demineralizer Regenerant Neutralization System (SDRNS) was given a final flush after it was taken out of service. The basic operation involved was neutralization which was controlled by a semi-automatic pH controller. The last flushing operation was monitored for pH and continued as necessary (based upon variant of pH). After neutralization check, the spent neutralized regenerant was discharged as non-treated drainage to the canal.

### **3.4 Data Collected**

The data collected by Entech was used for waste disposal documentation purposes. Analyses of the clarifier sludge, filter and spill soil as well as disposal manifests can be found in Appendix A. The daily log sheets kept by Entech during the IWTP decommission are provided in Appendix C.

## **4.0     FACILITY ASSESSMENT AFTER DECOMMISSION**

The general layout of the Philips IWTP is shown in Figure 2. IWTP units and/or processes reviewed for this report were those that contained wastes that have potentially hazardous characteristics or are specifically regulated. Also considered were those materials that are not classified as hazardous waste, but required cleanup because of potential safety and welfare issues with regard to plant personnel as well as those coming into contact with the premises in the future.

### **4.1     Data Collection**

In order to identify units and facility areas, Keystone conducted field and office information gathering activities during February and March of 1990. These activities included observation of plant facilities, visual inspection of plant equipment, collection and review of applicable file data and drawings, and personnel interviews to discuss present and past IWTP operations.

### **4.2     Units and Areas Decontaminated**

Our review of the Entech decommission procedures and logs (Appendix C) indicates that Entech followed the recommended procedures.

Based on our inspection, the IWTP units and areas shown in Figures 2, 3 and 4 and the SDRNS shown in Figure 6 have been adequately decontaminated by triple rinsing, including a high pressures water rinse.

### **4.3     Waste Disposal**

Based on the sludge sample analyses provided in Appendix A, the sludge was properly disposed as a non-regulated waste.

All other hazardous and non-hazardous wastes raw materials from the IWTP deactivation were properly disposed. Hazardous waste disposal manifests are provided in Appendix A.

#### **4.4 Conclusion**

This decommission report for the Philips IWTP and SDRNS concludes that the decommission was properly performed in accordance with applicable Federal, State and local regulations. The decommissioned IWTP and SDRNS present no safety or environmental hazards.

There were no known spills from the IWTP or SDRNS that require additional decontamination, soil sampling or groundwater monitoring. Therefore, Philips feels that the IWTP and SDRNS decommission is complete.