March 30, 1989

Mr. Ben Singh
U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278

Reference: EPA Contract No. 68-01-7038; Work Assignment No. R02-01-64;
Corning Glass Works, Main Plant; EPA I.D. No. NYD004971503;
CAPT LOIS Inspection

Dear Mr. Singh:

This letter summarizes the findings of a Corrective Action Prior to Loss of Interim Status (CAPT LOIS) inspection conducted at Corning Glass Works, Main Plant, Corning, New York. The final report is attached. The CAPT LOIS inspection is to evaluate the solid waste management units (SWMUs) and other areas of concern to determine the need for corrective action.

The earliest operations at Corning Glass date back to the 1870s. Because of the age of the facility, all of the manufacturing operations and waste management practices are not precisely known. The site formerly consisted of three factories named A, B, and C. Factory A was used to manufacture pyrexware and microwave dishes, and Factory B was used to manufacture pressed glass products. Both Factories A and B are inactive and have been demolished. The only active glass manufacturing at the site is the manufacturing of thermometer tubing at Factory C. In addition, the facility currently has a trade shop and power plant also located at the site. The trade shop is a machine shop and vehicle maintenance shop.

The only hazardous wastes currently generated at the site are dusts which contain EP toxic levels of lead and arsenic (D008) from the active glass tank and mixhouse, and a small quantity of spent solvents (D001). Previously, mold plating operations generated a chrome sludge (D007) and electro-conductive coating of microwave dishware generated corrosive wastes (D002). Non-hazardous waste oil is currently generated at the trade shop and power plant and is shipped off-site for reclamation.

During the file review and site visit, 5 active and 13 inactive solid waste management units were identified. There are no known or suspected releases from these units to require corrective action prior to loss of interim status. All units which treated or stored hazardous wastes have been closed under the supervision of NYSDEC. Currently, there are no active hazardous waste management units at the site which store wastes for greater than 90-days.

If you have any questions regarding this letter and report, please call the undersigned.

Sincerely,

Jim Levin

Jim Levin
Technical Director

enc.

cc M. Emile, U.S. Environmental Protection Agency Region II
J. Moran, New York State Department of Environmental Conservation
C. Saunders, A.T. Kearney

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FINAL REPORT

CORRECTIVE ACTION PRIOR TO LOSS OF INTERIM STATUS INSPECTION CORNING GLASS WORKS, MAIN PLANT CORNING, NEW YORK EPA I.D. No. NYD004971503

Prepared for:

U.S. Environmental Protection Agency
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EPA Contract No. 68-01-7038
Work Assignment No. R02-01-64

March 1989

TABLE OF CONTENTS

CORNING GLASS WORKS
CORNING, NEW YORK

LIST OF FIGURES

1.0 INTRODUCTION

A.T. Kearney, Incorporated (ATK) received Work Assignment No. R02-01-64 from the U.S. EPA, under Contract No. 68-01-7038, to conduct corrective action prior to loss of interim status (CAPT LOIS) inspections in the State of New York. ATK has directed DPRA Incorporated (DPRA) to provide the necessary assistance under this work assignment.

A CAPT LOIS inspection is organized similarly to a RCRA Facility Assessment (RFA). A CAPT LOIS inspection consists of (1) a file review, similar to a preliminary review, and (2) a site visit, similar to a visual site inspection. For this reason, a CAPT LOIS inspection sometimes is referred to as a "limited RFA."

DPRA conducted a CAPT LOIS inspection at the Corning Glass Works, Main Plant, Corning, New York. As the first phase of the inspection, DPRA conducted a file review at the offices of the U.S. EPA Region II and the New York State Department of Environmental Conservation (NYSDEC) offices. As part of the file review, DPRA identified Solid Waste Management Units (SWMUs) and any other areas of concern (AOCs) located at the facility. As the second phase of the inspection, DPRA conducted a site visit at Corning Glass Works on March 8, 1989. DPRA conducted the site visit to verify the information in the file materials, identify any additional SWMUs and AOCs, and observe any evidence of releases from the SWMUs or AOCs. Based on the results of the site visit, DPRA has prepared and submitted this report to the U.S. EPA to reflect the actual conditions at the Corning Glass Works. This report describes the facility and discusses the findings of the file review and site visit.

Pertinent information regarding the facility is presented below:

Facility Name:	Corning Glass Works, Main Plant
U.S. EPA ID No.	NYD004971503
Address:	Corning Glass Corning, New York 14831

Facility Contact: Mr. Blake Manuel
Sr. Environmental Control Engineer

Telephone: (607) 974-6204

2.0 FACILITY DESCRIPTION

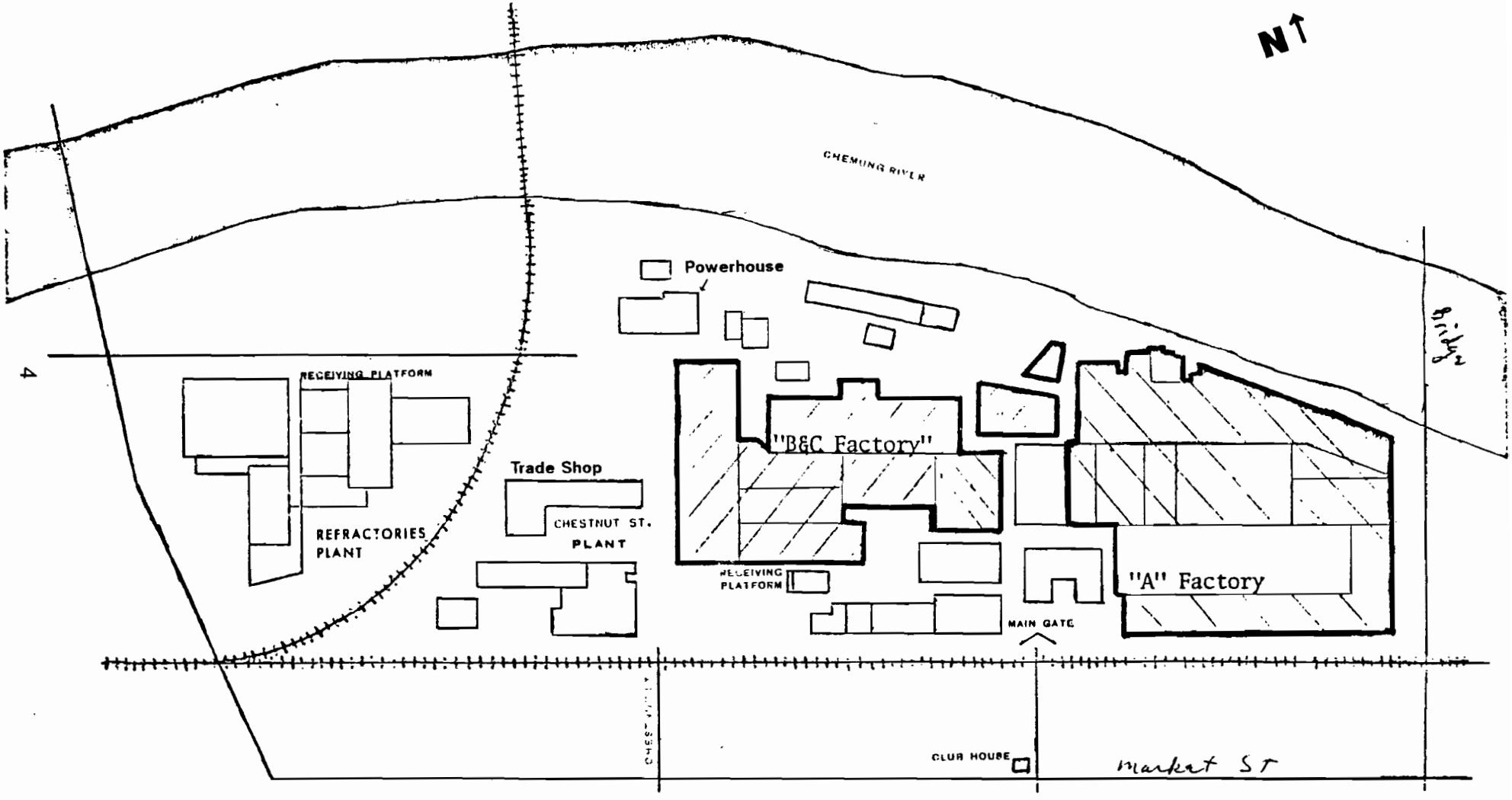
The Corning Glass Works, Main Plant is located in Corning, New York on the south bank of the Chemung River. The location of the site is shown in Figure 1. The earliest operations at the site date back to the 1870s. Because of the age of the facility, all of the manufacturing operations and waste management practices are not precisely known. At its peak of operations the site had four glass "tanks" which are furnaces used to melt the glass for forming. In addition, the plant had several hand shops where glass was hand blown. The main plant was divided into three factories named A, B, and C (See Figure 2). Of these three factories, only Factory C is still in operation. Both Factories A and B are no longer active and have been recently demolished. Factory A was used to manufacture pyrexware and microwave dishes and the B Factory was used to manufacture pressed glass products. The only active glass manufacturing at the main plant is the manufacturing of thermometer tubing in the C Factory. A trade shop and power plant are also located at the Main Plant. The trade shop is a machine shop and vehicle maintenance shop used to service other Corning Glass operations in and around the Corning area. All other operations at the Main Plant are non-manufacturing (Ref. 32).

Operations at the site which have generated hazardous wastes are glass mixing, glass melting, electro-conductive coating, chrome plating, and chemical laboratories (Ref. 12). Also, spent solvents (D001) are generated from routine plant maintenance. Approximately one 55-gallon drum of spent solvents is currently generated at the site per year (Ref. 32). Glass mixing, which is the mixing of raw products to make glass, and off-gases from glass melting tanks generate dust which is EP toxic for lead and arsenic (D008). Glass mixing and melting are the only hazardous waste generating manufacturing processes remaining at the site. electro-conductive coating was associated with the manufacturing of microwave dishes which was discontinued at the site in 1984 (Ref. 32). The electro-conductive coating was a tin-oxide coating that was applied to the glassware to create heat during microwave cooking. This process generated corrosive liquids (D002) from hydrochloric acid used in the coating process (Ref 12). The plant also had a chrome plating shop

Figure 1. Facility Location Map for Corning Glass Company

(Modified from Ref. 33)

Figure 2. Factory Location Map
Corning Glass Works, Main Plant
(Modified from Ref. 32)



Approximate scale: 1" = 225'

located in Factory A to plate molds used in glass pressing operations. The chrome plating shop had a chrome treatment system which discharged to a SPDES outfall until approximately 1983 (Ref. 32). The treatment system generated a sludge listed for chrome content (D007). Reportedly, all listed hazardous wastes were/are shipped off-site for recovery or disposal and no hazardous wastes have ever been treated or disposed of on-site (Ref. 32).

In addition to hazardous wastes, non-hazardous waste oils are generated. During the glass manufacturing operations, quench water which was contaminated with hydraulic and lubricating oils was separated prior to discharge out the SPDES outfall (Ref. 7). This waste stream is not currently generated at the site. Small quantities of waste-oils are currently generated in the Power Shop and Trade Shop. Waste oil currently generated at the site is drummed in 55-gallon drums and shipped off-site. Facility personnel estimated that about eight drums are generated annually (Ref. 32). The site also formerly operated a solid waste incinerator for steam generation (Ref. 13).

In August 1980, Corning Glass, Main Plant filed a Notification of Hazardous Waste Activity (Ref. 1) as a treatment, storage, and disposal facility (TSDF). A Part A Application (Ref. 3) was filed in November of 1980 listing 24,655-gallons of container storage and a proposed vitrification system which was never built (Ref. 32). Due to the decrease in manufacturing activities at the Main Plant, the facility closed all of its RCRA-regulated units under NYSDEC (Ref. 31) and currently seeks generator only status. At present, there are no greater than 90-day storage areas at the site and no hazardous waste treatment or disposal units at the site. Prior to closure of the greater than 90-day storage areas, the facility was an interim status TSD facility.

3.0 SOLID WASTE MANAGEMENT UNITS

During the file review and site visit, fifteen solid waste management units (SWMUs) were identified at Corning Glass, Main Plant. Of these units only 5 are currently active. The units are:

Active Units

- o West Baghouse (SWMU 1)
- o Waste Oil Accumulation Drum (SWMU 2)
- o Solvent Accumulation Drum (SWMU 3)
- o Powerhouse Oil/Water Separator (SWMU 4)
- o Less Than 90-Day Storage Area (SWMU 5)

Inactive Units

- o North Baghouse (SWMU 6)
- o West Mixhouse Dust Collector (SWMU 7)
- o Hazardous Waste Hopper Storage Area (SWMU 8)
- o Hazardous Chemical Storage Area (SWMU 9)
- o Hazardous Liquid Storage Tank (SWMU 10)
- o Chrome Treatment System (SWMU 11)
- o Pyrex Glass Treatment System (SWMU 12)
- o Facet Emulsified Oil System (SWMU 13)
- o 2A Oil/Water Separator (SWMU 14)
- o 5A Oil/Water Separator (SWMU 15)
- o Old Powerhouse Oil/Water Separator (SWMU 16)
- o Electrostatic Precipitator (SWMU 17)
- o Main Plant Incinerator (SWMU 18)

The location of these units is shown on Figure 3.

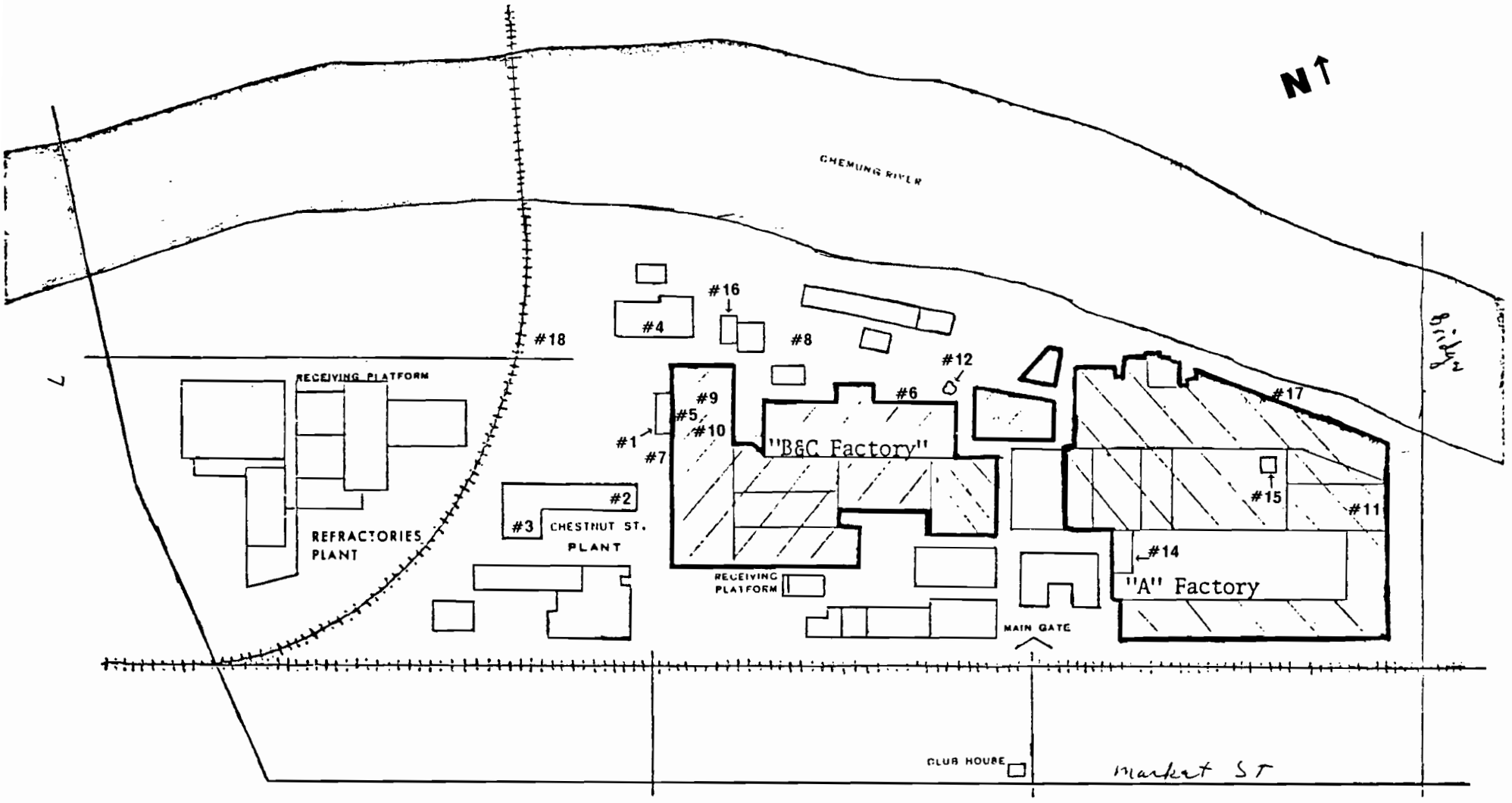
3.1 WEST BAGHOUSE (SWMU 1)

(Photograph 3)

Description:

The West Baghouse is located on the west side of Building 36 in Factory C. The baghouse is designed to collect particulates from the active 2A tank and dust from the mixhouse. The baghouse was built in 1974 (Ref. 32), and consists of four chambers and a cooling chamber. The cooling chamber is presently used as a settling chamber for large particulates prior to entering the baghouse. The particulates can be emptied from the cooling chamber to an open polyflex bag located below the unit. Dust from the baghouse

Figure 3. SWMU Location Map
Corning Glass Works, Main Plant
(Modified from Ref. 32)



Location of SWMU #13 is unknown

Approximate scale: 1" = 225'

chambers is collected in polyflex bags which are located below the elevated chambers. Both the cooling chamber and baghouse chambers are steel and elevated above-ground.

Status:

This unit is not RCRA-regulated and is currently active. The unit is permitted by NYSDEC as an air contamination source (Ref. 32).

Waste Type:

This unit is used to manage air emissions from tank 2A and the mixhouse. The waste is considered EP toxic for lead and arsenic. The waste is manifested as D008 (Ref. 32).

Waste Management:

Hazardous dusts from this unit are accumulated in polyflex bags prior to shipment off-site. The bags are approximately three feet on a side and four feet high and are stored on wooden pallets in an enclosed room with a concrete floor. The bags from the baghouse chambers are completely sealed so that dust cannot escape to the environment (Photograph 12). The polyflex bag from the cooling chamber is located outdoors and is not sealed (Photograph 4). The bags are stored either in the enclosed room below the baghouse or in the less than 90-day hazardous storage area prior to disposal off-site.

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge. No evidence of release was observed during the inspection.

3.2 SATELLITE DRUM ACCUMULATION AREAS (SWMUs 2 and 3)

(Photographs 1 and 2)

Description:

The Corning Glass, Main Plant currently maintains two satellite drum accumulation areas. One unit is the Waste Oil Accumulation Drum (SWMU 2) and the other is the Solvent

Accumulation Drum (SWMU 3). Both of these units are associated with the trade shop operations and are 55-gallon drums which are completely contained indoors on concrete flooring. The Solvent Accumulation drum is kept in a room with other flammable materials and the Waste Oil Drum is kept with drummed product used in the trade shops (Ref. 32).

Status:

These units are currently active and are not regulated under RCRA.

Waste Type:

The Waste Oil Accumulation Drum is used to store non-hazardous waste oils and the Solvent Accumulation Drum is used to store spent solvents (D001).

Waste Management:

Both of these units are used to accumulate wastes in 55-gallon drums and are located indoors. The waste oils collected in the Waste Oil Accumulation Drum are shipped off-site when the drum becomes full. Facility personnel estimated that the trade shop generates about three drums per year (Ref. 32). The Solvent Accumulation Drum is kept with other flammable materials (primarily paints) in the trade shop. When the drum is full it transferred to the Less Than 90-Day Storage Area (SWMU 5) and shipped off-site as D001 waste.

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in either of these areas to the best of their knowledge. No evidence of release was observed during the inspection.

3.3 POWERHOUSE OIL/WATER SEPARATOR (SWMU 4)

(Photograph 7)

Unit Description:

This unit was installed in 1988 to treat steam condensate in the powerhouse (Ref. 32). The unit is comprised of two sections. The upper section is a rectangular tank which is approximately two feet long, one foot wide, and one foot deep. The upper section has baffles to aid gravity separation of oil from water. The oil from the unit accumulates in the lower section which is a closed rectangular tank. The tank is approximately one foot wide by two feet long, and three feet deep. Both of the units are constructed of steel and are located above-ground.

Status:

This unit is currently active and does not manage hazardous waste.

Waste Type:

This unit is used to accumulate non-hazardous waste oil.

Waste Management:

This unit is designed to gravity separate oil from water discharged to a SPDES outfall. The unit treats steam condensate generated in the power plant which is mixed with oil for lubrication purposes. The oil accumulates in a closed above-ground accumulation tank which is drummed when full and shipped off-site as non-hazardous waste oil. Facility personnel estimated that approximately two drums are shipped off-site per year from this unit (Ref. 32).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge. No evidence of release was observed during the inspection.

3.4 LESS THAN 90-DAY STORAGE AREA

(Photograph 13)

Unit Description:

The Less Than 90-day storage Area is located in Building 36 in Factory C. This area is an indoor drum storage area which stores any hazardous wastes generated at the site in 55-gallon drums or polyflex bags. The room is approximately 100 feet by 40 feet with a concrete floor and cinder block walls. At the time of the site visit, there were no waste drums or polyflex bags stored in this area. Currently, the room is being used to store decontaminated waste hoppers. The Hazardous Chemical Storage Area (SWMU 9) and the Hazardous Liquid Storage Tank (SWMU 10) were previously located in this room.

Status:

The unit is an active less than 90-day hazardous waste storage area.

Waste Type:

The Less Than 90-day Storage Area receives any hazardous wastes generated at the facility. Currently, the unit manages approximately one drum a year of spent solvents (D001) and dust from the 2A glass tank and mixing house stored in polyflex bags (D008).

Waste Management:

The area is contained completely indoors over a concrete floor. At the time of the VSI, only decontaminated waste hoppers were being stored in the room. All hazardous wastes stored in this room are stored for a period of less than 90 days.

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in this area to the best of their knowledge. No evidence of release was observed during the site inspection. This area was certified clean under the closure for the Hazardous Chemical Storage Area (SWMU 9) and Hazardous Liquid Storage Tank (SWMU 10).

3.5 INACTIVE HAZARDOUS DUST MANAGEMENT UNITS (SWMUs 6, 7, and 8)

(Photograph 9)

Description:

Corning Glass, Main Plant formerly managed three SWMUs for management of dust generated from glass tanks and mixhouses. These units include the North Baghouse (SWMU 6), the West Mixhouse Dust Collector (SWMU 7), and the Hazardous Waste Hopper Storage Area (SWMU 8). The North Baghouse was a three-chamber baghouse that was installed in approximately 1974 and demolished in 1988. The West Mixhouse Dust Collector was installed in approximately 1970 and demolished in approximately 1987 (Ref. 32). The construction of these units was reportedly similar to the construction of the active West Baghouse (SWMU 1; Ref. 32). Both units were constructed of steel and were located completely above-ground in Factory B.

The Hazardous Waste Hopper Storage Area was an outdoor unit located north of Factory B. The unit was a 20 to 30 cubic yard steel roll-off bin for storage of dust generated at the West and North Baghouses and the West Mixhouse Dust Collector (SWMUs 1, 6, and 7). The unit was placed partially over a concrete pad and partially over bare soil (Ref. 32) This unit was used for approximately three years prior to closure under NYSDEC in 1988 (Refs. 31 and 32).

Status:

All of these units are inactive and have been demolished. The North Baghouse and West Mixhouse were not RCRA-regulated units. The Hopper Storage Area was a RCRA-regulated unit which has been closed under the supervision of NYSDEC (Refs. 29 and 31).

Waste Type:

These units managed dust from the mixhouses and off-gases from the glass tanks. This waste contained EP toxic levels of lead and arsenic and was manifested as D008.

Waste Management:

The North Baghouse was used to collect dust generated in Factory C. The West Mix House Dust Collector was used to collect dust from the mixhouse formerly located in Building 38. The Hazardous Waste Hopper Storage Area (SWMU 8) collected D008 dust from various locations at the plant prior to shipment off-site for disposal (unit stored dust for greater than 90-days). The bin has been removed from the site, the surface soils were removed, and soil samples were taken as part of closure under NYSDEC. All soils tested before and after excavation as part of closure were non-toxic as defined by EP toxicity limits (Refs. 29 and 31).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred from the North Baghouse and West Mix House. No evidence of release from either of theses units was observed in the area where the units were formerly located. The Hazardous Waste Hopper Storage Area has been closed under NYSDEC (Ref. 29).

3.6 INACTIVE ELECTRO-CONDUCTING COATING WASTE MANAGEMENT UNITS (SWMUs 8 and 9)

(Photograph 13)

Description:

Two hazardous waste storage units associated with the electro-conducting coating placed on microwave dishes were formerly located at the site. This process was performed in Factory A from approximately 1980 to 1985. These units are the Hazardous Chemical Storage Area (SWMU 9) and the Hazardous Liquid Storage Tank (SWMU 10). Both units underwent formal closure under NYSDEC in 1988 and were located in the same room as the Less Than 90-Day Storage Area (SWMU 5).

The Hazardous Chemical Storage Area was used for the storage of corrosive liquids in drums. Approximately 60 to 70 55-gallon drums were allowed to accumulate in this room prior to shipment off-site (Ref. 32). The room is approximately 100 feet by 40 feet with a

concrete floor and cinder block walls. The room also stored spent filters, which were also corrosive, in open plastic bins lined with bags. The bins were approximately two feet wide, four feet long, and three feet deep (See Photograph 13). The filters were drummed in this room prior to off-site shipment. The bins were stored over an acid-resistant curbed pad.

The Hazardous Liquid Storage Tank was located in the same room as the Hazardous Chemical Storage Area. The unit was used as a holding tank prior to drumming the wastes for disposal. The tank was an elevated 600-gallon steel tank which has been removed from the site.

Status:

Both of these units were regulated under RCRA and have been closed under a NYSDEC-approved closure plan. The closure included washing all flooring and containers and shipping contaminated washwater and associated cleaning supplies off-site. Wipe samples were taken to verify clean closure (Ref. 31).

Waste Type:

The units were used to store a corrosive mixture of stannic chloride and tin oxide (D002) generated in the coating of microwave dishware (Ref. 32).

Waste Management:

The electro-conductive coating waste management units were used to manage waste associated with the Anderson 200 Air Filter, which is essentially a scrubber with filters. The liquid from this unit was discharged to the Hazardous Liquid Storage Tank prior to drumming. The filters were transported in lined open plastic bins which were stored over an acid-resistant pad. Both the liquid from the storage tank and the filters were placed in 55-gallon drums in this room and stored for greater than 90-days (Ref. 32).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge and no evidence of release was observed during the site visit. The areas were closed under the supervision of NYSDEC.

3.7 CHROME TREATMENT SYSTEM (SWMU 11)

(Not Photographed)

Description:

The Chrome Treatment System was located in Building 9 in Factory A. The date this unit began operation is unknown, but dates back prior to the 1970's (Ref. 32). The unit was shut down in 1983 and closed under the supervision of NYSDEC (Refs. 18, 19, and 29). The entire unit was located indoors, above-ground, and discharged to the SPDES outfall 002. The primary components of the system were a 588-gallon chrome reduction tank, a 70-gallon bisulfite tank, and a filter system (Ref. 19).

Status:

This unit was a RCRA-regulated unit that has been inactive since 1983, and was certified closed under supervision of NYSDEC in September 1985 (Ref. 29).

Waste Type:

The chrome treatment unit was used to precipitate chrome from plating solutions. The system generated a sludge and spent filters which were disposed of off-site as hazardous due to chrome (D007).

Waste Management:

The unit was used to precipitate chrome from waste water generated in mold plating operations prior to discharge to a SPDES outfall. Reportedly, all of the units associated with the treatment system were located above-ground indoors (Ref. 32). Following the

normal treatment of all chrome-contaminated liquids, all equipment was dismantled and shipped off-site (Ref. 18).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge. The unit was demolished at the time of the site visit and could not be visually inspected. The areas were closed under the supervision of NYSDEC (Ref. 18).

3.8 PYREX GLASS TREATMENT SYSTEM (SWMU 12)

(Not Photographed)

Description:

The Pyrex Glass Treatment System was located north of Factory B. This unit was installed in the mid-1970s to treat water used in glass grinding and polishing operations prior to discharge out SPDES outfall 004. The unit was used to treat pyrex-glass-associated waste water that did not contain the hazardous metals (arsenic, lead, chrome, and cadmium) found in other glass manufacturing processes (Ref. 32). The unit consisted of a Clarifier and a Rotary Drum. The clarifier was partially in ground and was approximately 14 feet in diameter and 20 feet high. The rotary drum was above-ground and approximately four feet in diameter (Ref. 32).

Status:

The unit managed non-hazardous wastes and was removed from the site in 1988 (Ref. 32).

Waste Type:

The unit separated glass particulates (cullet) and any other solids generated during grinding and polishing operations of pyrex glass prior to SPDES discharge. The separated solids from pyrex glass were non-hazardous (Ref. 32).

Waste Management:

This unit was designed to separate solids from waste water generated in the polishing and grinding of pyrex glass prior to SPDES discharge. The unit consisted of a clarifier for settling and a rotary drum for drying. Most of the cullet was recycled; however, some non-hazardous solids were shipped to a Subtitle D landfill from this unit (Ref. 32).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge. No evidence of release was observed during the inspection.

3.9 FACET EMULSIFIED OIL SYSTEM (SWMU 13)

(Not Photographed)

Description:

The emulsified oil system was installed to remove emulsified oil from the shear spray generated at the 5A tank manufacturing area. The spray water contained emulsified oil and was discharged to SPDES outfall 003 (Ref.4). No other information is available on this unit.

Status:

This unit managed non-hazardous waste and was removed in 1988 (Ref. 32).

Waste Type:

The unit was designed to remove non-hazardous emulsified oil from waste water prior to SPDES discharge (Ref. 32).

Waste Management:

This unit was installed to remove emulsified oil from shear spray at the 5A tank. The oil generated was non-hazardous and shipped off-site (Ref. 32). No other information is available on this unit.

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in the area to the best of their knowledge. The unit was demolished at the time of the site visit and could not be visually inspected.

3.10 INACTIVE OIL/WATER SEPARATORS (SWMUs 14, 15, and 16) (Photograph 8)

Description:

Corning Glass, Main Plant had three API-type oil/water separators to gravity separate oil from process water prior to discharge out SPDES outfalls. These units are the 2A Oil/Water Separator (SWMU 14), 5A Oil/Water Separator (SWMU 15), and the Old Powerhouse Oil/Water Separator (SWMU 16). All of these units are inactive and have been demolished.

The 2A and 5A Oil/Water Separators were associated with the glass tanks. The units separated oil from quench water which may have contacted oil and grease during the glass forming process. Both the 2A and 5A Oil/Water Separators were open topped above-ground steel tanks. The 2A tank was approximately 14 feet wide, 60 feet long, and 10 feet deep, and the 5A tank was U-shaped measuring approximately 28 feet wide, 70 feet long and 10 feet deep (Ref. 32). Both units discharged treated water to SPDES Outfall 003.

The Old Powerhouse Oil/Water Separator was used to treat steam condensate prior to discharge out the SPDES outfall 005. The unit was installed in the mid-1970s and was replaced by a smaller unit, Powerhouse Oil/Water Separator (SWMU 4), in 1988 due to decreased power demands at the plant (Ref. 32). The unit was approximately 8 feet in diameter and 10 feet high, and was completely above-ground.

Status:

All of the Inactive Oil/Water Separators were demolished. The 2A and 5A Separators have been inactive since 1984, and the Powerhouse Separator was replaced in 1988 (Ref 32).

Waste Management:

All of the Oil/Water Separators were above-ground steel tanks used to gravity separate oil. The waste oil generated from all three of the separators was non-hazardous and shipped off-site (Ref. 32).

Known and Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in either of these areas to their best of their knowledge. The units were demolished prior to the site visit and could not be visually inspected.

3.11 ELECTROSTATIC PRECIPITATOR (SWMU 17)

(Not Photographed)

Description:

The Electrostatic Precipitator was installed to control emissions from the 5A tank (ref. 6). The unit was installed in the mid-1970s and removed in approximately 1985 (Ref. 32). No other information is available on this unit.

Status:

This unit has been removed from the site.

Waste Type:

This waste generated in this unit was non-hazardous; however, the wastes did contain some arsenic below EP toxicity levels (Ref. 32).

Waste Management:

This unit was used to collect non-hazardous dust from the 5A tank. The dust was shipped off-site to a Subtitle D landfill (Ref. 32).

Known or Suspected Releases:

During the inspection, facility personnel stated that no spills have occurred in either of these areas to the best of their knowledge. The units were demolished at the time of the site visit and could not be visually inspected.

3.12 MAIN PLANT INCINERATOR (SWMU 18)

(Photograph 6)

Description:

The Main Plant Incinerator was formerly located just north of the present Main Plant property boundary. The incinerator was permitted by NYSDEC and burned only non-hazardous wastes. The unit was installed to generate steam in 1982 (Refs. 13 and 32).

Status:

The unit was removed from the site in 1985 (Ref. 32).

Waste Type:

The unit was used to burn solid wastes such as pallets, paper, and cardboard. The unit also received solid waste shredded and compacted into bales from Monroe County, New York (Ref. 13).

Waste Management:

This unit was used to generate heat from solid wastes generated at the Corning Glass plants located in the Corning area and also received solid wastes from the county (Ref. 13). The unit was permitted by the NYSDEC who monitored opacity from the stack. The opacity of the off-gases was limited to 20% under NYSDEC Permit number EP-CT311. The ash from the incinerator was transported by Corning in State-permitted vehicles and disposed of at the Steuben County Landfill (Ref. 13).

Known and Suspected Releases:

This unit was cited on numerous occasions when opacity was observed to be in excess of 20% (Ref. 13). Prior to the site visit this unit was removed and could not be observed.

4.0 SUMMARY AND CONCLUSIONS

Corning Glass Works was an interim status TSD facility prior to closing their chrome treatment system and greater than 90-day hazardous waste management units. Since closure in 1988 of the RCRA-regulated storage areas, there have been no hazardous waste management units on-site that store hazardous wastes for greater than 90-days, or that treat or dispose of hazardous wastes at the site (Ref. 32). During the file review and visual site inspection, DPRA identified 18 solid waste management units (SWMUs). Only five of these units are presently active. These include the West Baghouse (SWMU 1), Waste Oil and Solvent Accumulation Drums (SWMUs 2 and 3), Powerhouse Oil/Water Separator (SWMU 4), and Less Than 90-Day Storage Area (SWMU 5). The West Baghouse is an enclosed, state-permitted baghouse. The Accumulation Drums, Oil/Water Separator, and Storage Area are all located indoors over concrete floors. No evidence of known or suspected releases from these units was found in preparing this report.

DPRA identified 13 inactive solid waste management units (SWMUs 6 through 18). All of these units have been dismantled and have been removed from the site. All units which stored hazardous wastes for a period of greater than 90 days were closed under the supervision of NYSDEC. These units were the Hazardous Waste Hopper Storage Area (SWMU 8), Hazardous Chemical Storage Area (SWMU 9), and Hazardous Liquid Storage Tank (SWMU 10). In addition, the Chrome Treatment System (SWMU 11) was closed under NYSDEC as a RCRA-regulated hazardous waste treatment unit. The areas potentially affected by these units were sampled and certified clean by an independent engineer. The remaining inactive units (SWMUs 6, 7, and 12 - 18) were not formally closed under any regulatory authority and were not able to be visually inspected during the site visit since the units had been removed from the site.

Interviews with Corning Glass Works personnel, and reviews of regulatory file materials did not indicate any releases from these units with the exception of the Main Plant Incinerator (SWMU 18).

The Main Plant Incinerator was cited for opacity levels above Corning's State-permitted levels. Also, the site has historically had problems meeting SPDES guidelines at their outfalls. This has not been a problem since manufacturing activities have dropped off at the site.

In conclusion, no corrective action is suggested at this site prior to loss of interim status since all RCRA-regulated units have been closed under the supervision of the state and there were no evidence of releases of hazardous constituents observed from the active or inactive units during the site visit. A major portion of the facility is currently inactive and has been dismantled and could not be observed.

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2. New York State Department of Environmental Conservation, Air Permits, Serial Number 460300 0122.

3. Corning Glass Works Main Plant Facility Diagram, undated.

4. Dennis J. Sugumele, New York State Department of Environmental Conservation, Letter to Jay Barker, Corning Glass Works, December 29, 1977.

5. Mr. Sugumele, New York State Department of Environmental Conservation, Memo to Mr. Schmeid, New York State Department of Environmental Conservation, December 21, 1978.

6. William J. Pignato, Corning Glass Works, Letter to Steve Russell, New York State Department of Environmental Conservation, June 6, 1980.

7. William J. Pignato, Corning Glass Works, Letter to New York State Department of Environmental Conservation, PDES Permit Section, April 11, 1980.

8. Notification of Hazardous Waste Activity, Corning Glass Works, August 13, 1980.

9. Corning Glass Works, Part A Permit Application, November 17, 1980.

10. William J. Pignato, Corning Glass Works, Letter to Daniel R. David, New York State Department of Environmental Conservation, March 23, 1981.

11. Daniel R. David, New York State Department of Environmental Conservation, Letter to Bill Pignato, Corning Glass Works, January 29, 1982.

12. Corning Glass Works, Main Plant, RCRA Inspection Report, March 10, 1983.

13. William J. Pignato, Corning Glass Works, Letter to Daniel David, New York State Department of Environmental Conservation, October 13, 1983.

14. William J. Pignato, Corning Glass Works, Letter to Conrad Simon, U.S. Environmental Protection Agency, Region II Air and Waste Management Division, October 14, 1983.

15. William J. Pignato, Corning Glass Works, Letter to Thomas Pearson, New York State Department of Environmental Conservation, November 17, 1983.

16. Complaint, Compliance Order, and Notice of Opportunity for Hearing, Corning Glass Works - Main Plant, June 29, 1984.

17. Paul Ingrisanno, Us. Environmental Protection Agency, Region II, Compliance and Enforcement Section, Memorandum to Andrew Praschak, U.S. Environmental Protection Agency, Region II, Waste and Toxic Substance Branch, January 11, 1985.

18. Chrome Treatment System, Detailed Closure Plan, NYD004971503.

19. Clifton K. Genge, Corning Glass Works, Letter to John L. Middlekoop, New York State Department of Environmental Conservation, Bureau of Hazardous Waste, February 14, 1985.

20. Corning Glass Works Main Plant New York State Department of Environmental Conservation Inspection Report, February 26, 1985.

21. Anthony J. Gallo, Corning Glass Works, Letter to Paul F. Schmeid, New York State Department of Environmental Conservation, March 14, 1985.

22. Daniel R. David, New York State Department of Environmental Conservation, Letter to Anthony Gallo, Corning Glass Works, September 27, 1985.

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24. Corning Glass Works Main Plant New York State Department of Environmental Conservation Inspection Report, March 25, 1986.

25. Corning Glass Works Main Plant New York State Department of Environmental Conservation Inspection Report, March 5, 1987.

26. Facility Biennial Hazardous Waste Report for 1986, Corning Glass Works - Main Plant, February, 12, 1987.

27. State Pollutant Discharge Elimination System (SPDES) Discharge Permit, Corning Glass Works, September 1, 1987.

28. Corning Glass Works Main Plant New York State Department of Environmental Conservation Inspection Report, October 28, 1987.

29. Corning Glass Works Main Plant Complex, Corning, New York, NYSDEC 6 NYCRR 373.3 Closure Plan, November 4, 1987.

30. Civil Action No. 84-0357T, Friends of the Earth v. Corning Glass works, December 2, 1987.

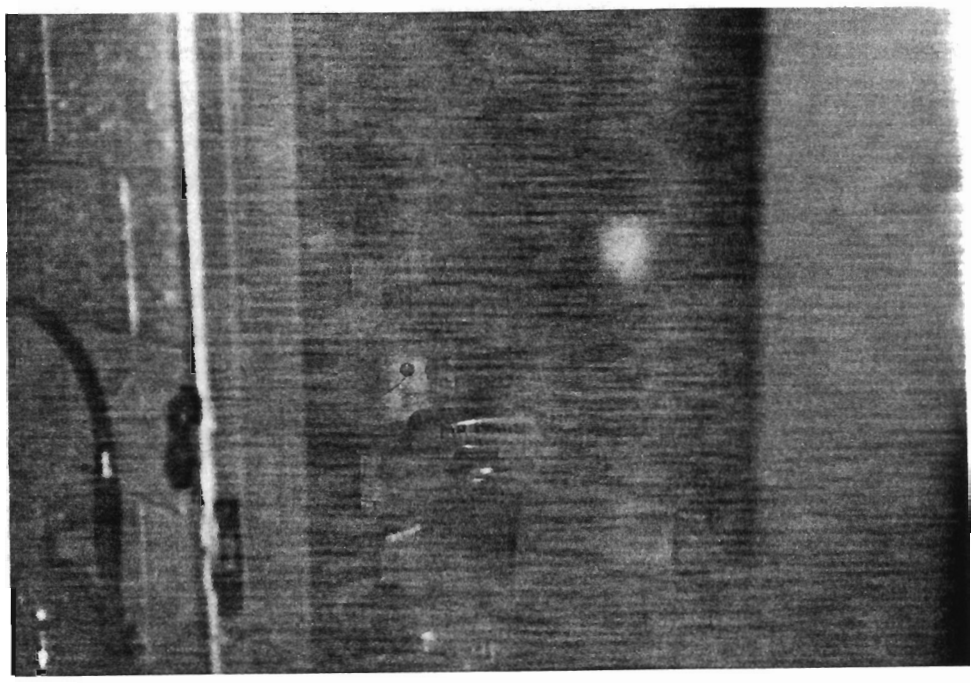
31. Richard W. McClung, Galson & Galson Consulting Engineers, Letter to James S. Moran, New York State Department of Environmental Conservation, December 28, 1988.

32. DPRA Incorporated, CAPT LOIS Site Inspection, March 8, 1989.

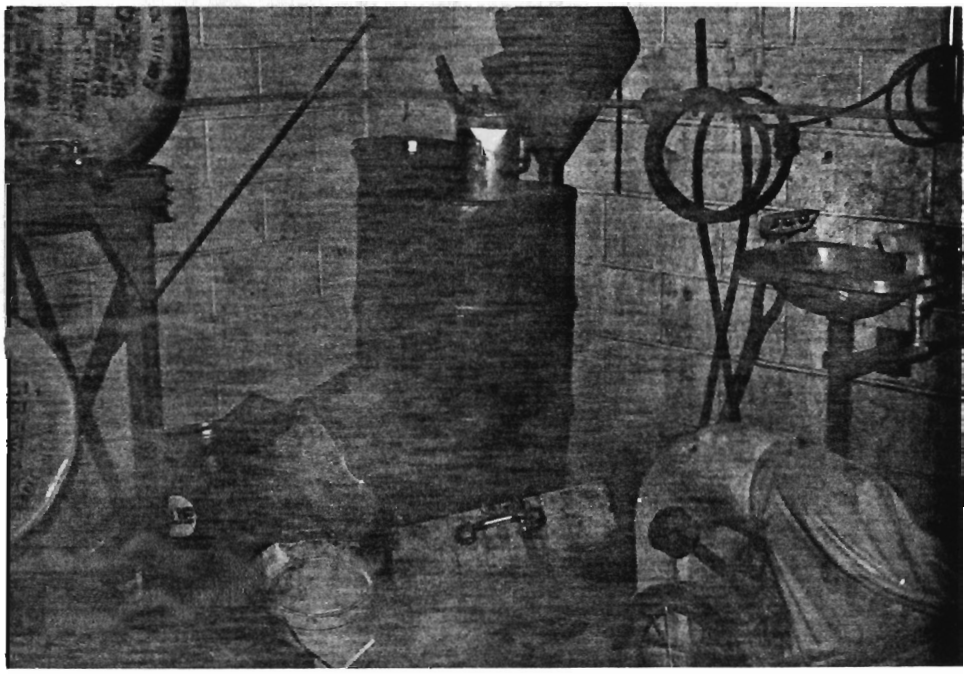
33. USGS Quadrangle, Corning, New York, 1969.

APPENDIX A

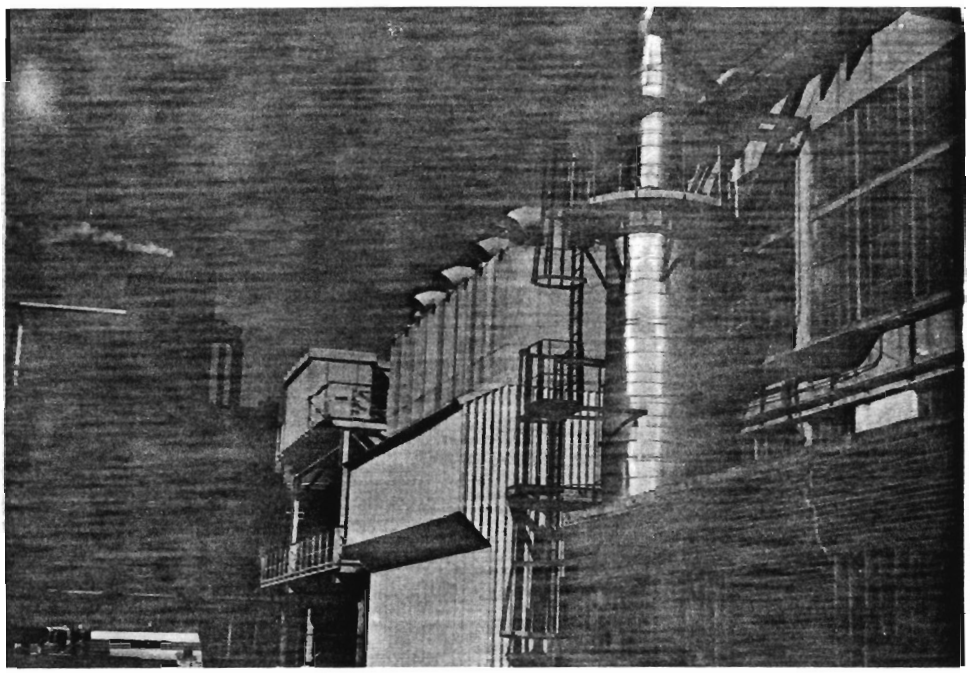
PHOTOGRAPHS TAKEN DURING THE SITE VISIT
CORNING GLASS, MAIN PLANT



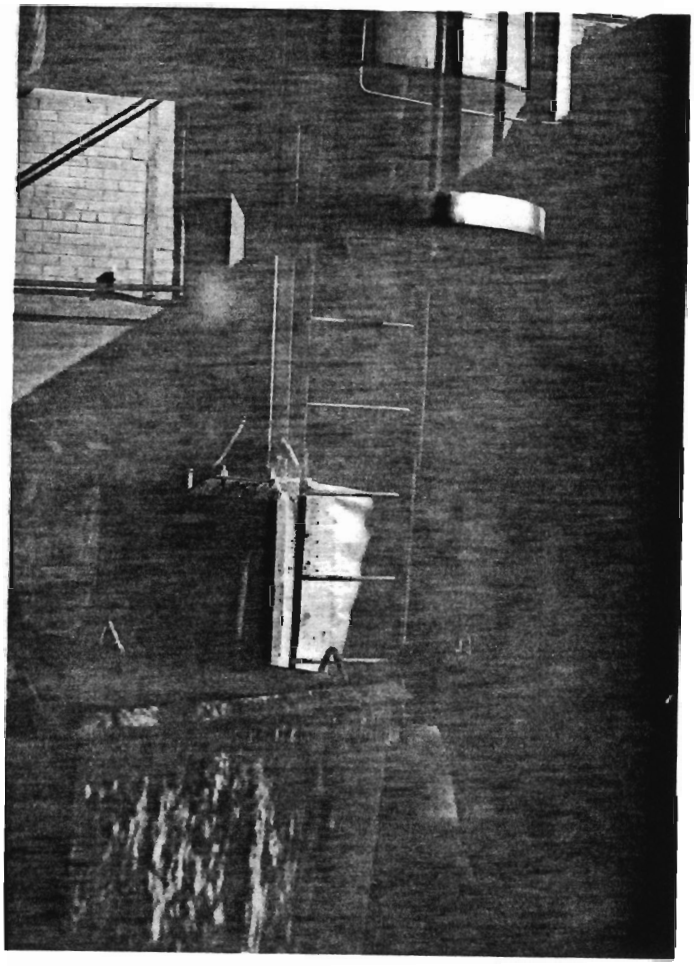
Photograph 1. View of the Solvent Accumulation Drum (SWMU 3). The unit is located in a flammable storage room and therefore the camera flash could not be operated in the room.



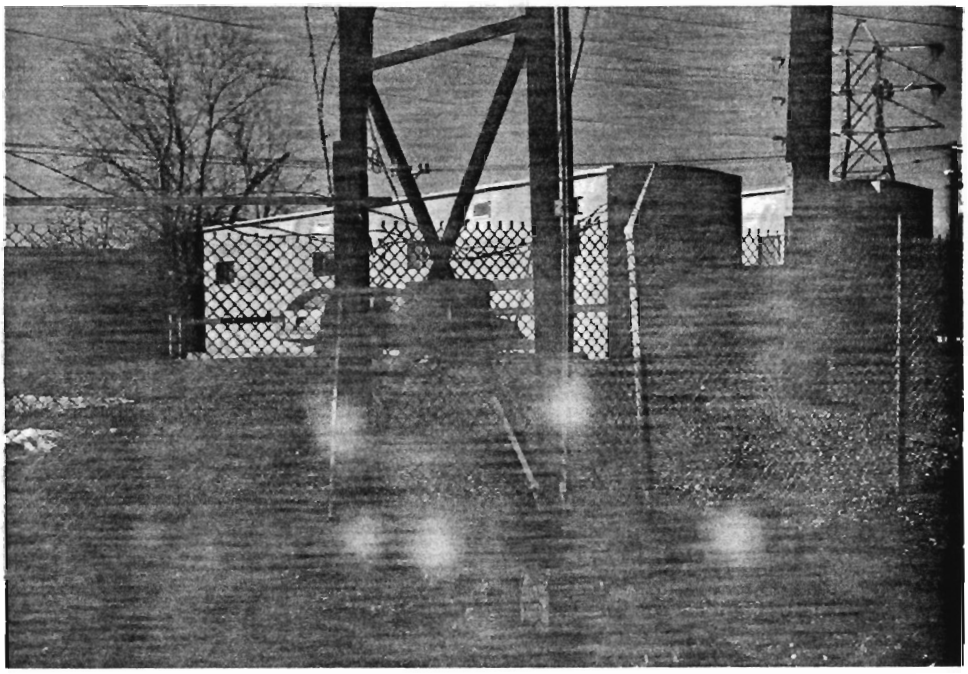
Photograph 2. View of the Solvent Accumulation Drum (SWMU 3) located in the Trade Shop.



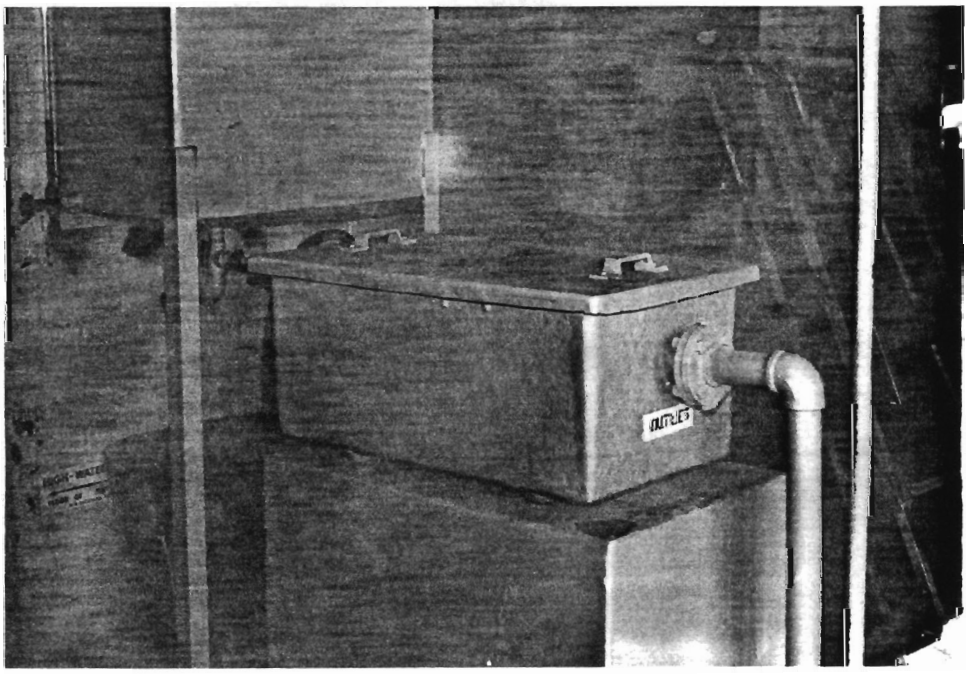
Photograph 3. Photograph of the West Baghouse (SWMU 1) looking northeast. The cylindrical tower in the foreground is the cooling chamber.



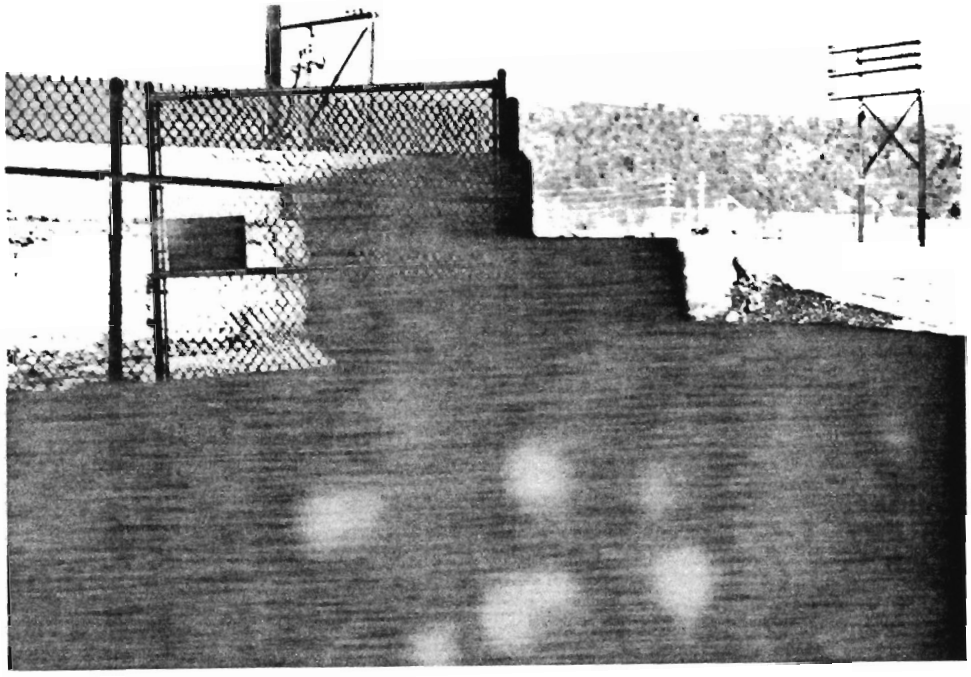
Photograph 4/5. Photograph of the polyflex bag located below the cooling chamber of the West Baghouse (SWMU 1). (Note: photograph shot twice due to suspected problem with photograph 4.)



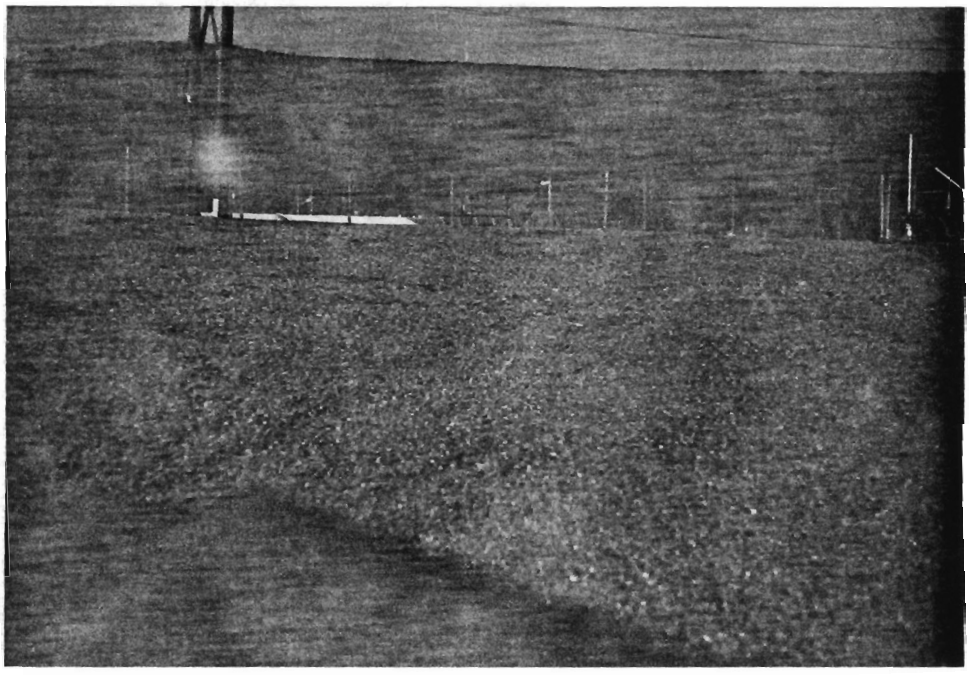
Photograph 6. Former location of the Incinerator (SWMU 18) looking northwest.



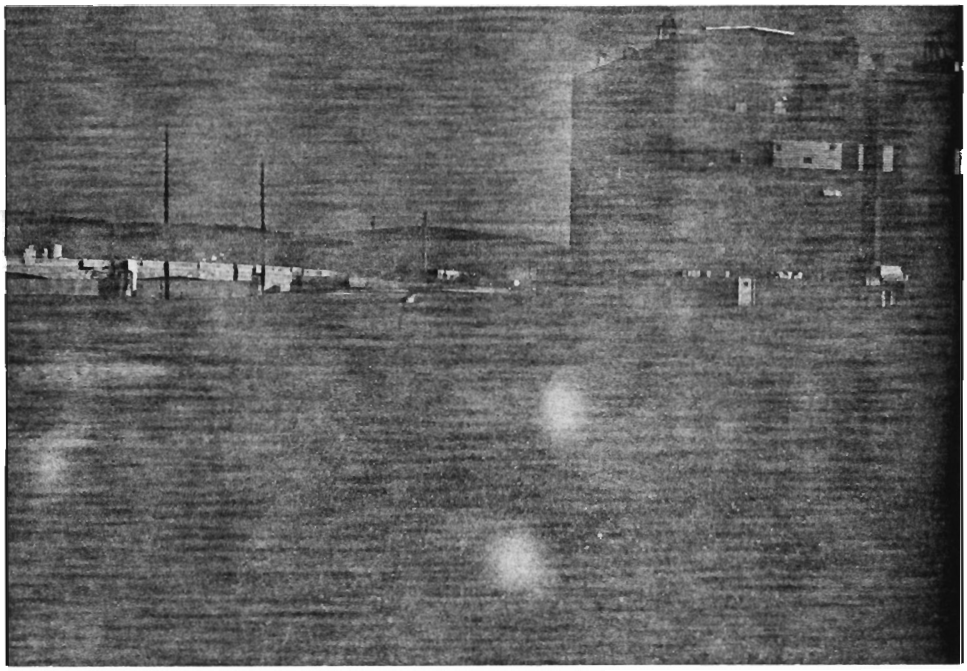
Photograph 7. Photograph of the Powerhouse Oil/Water Separator (SWMU 4). The upper tank is used for settling and the lower tank is used for accumulation.



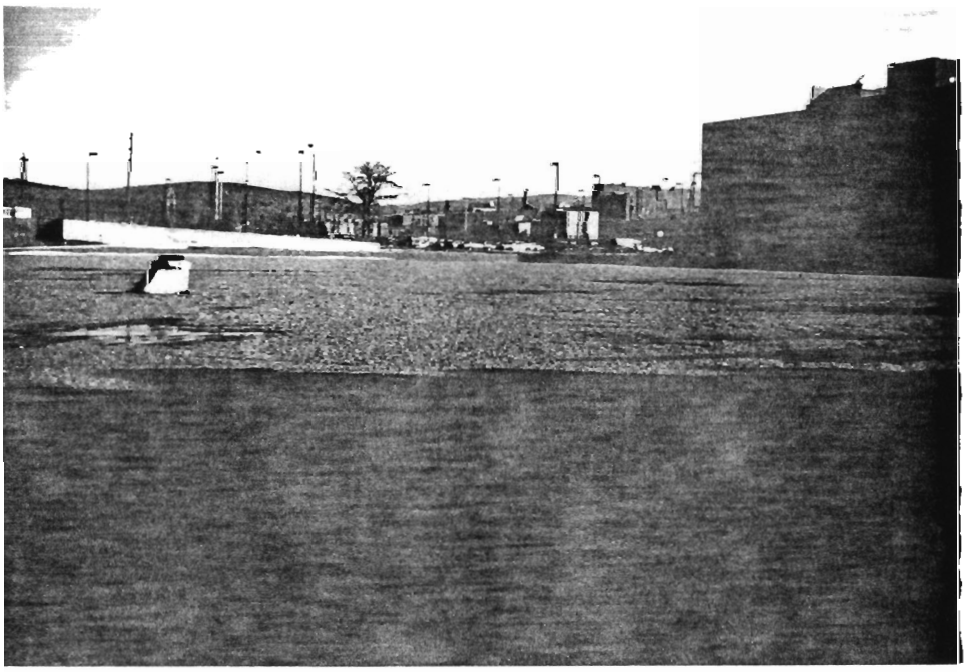
Photograph 8. Former location of the Old Powerhouse Separator (SWMU 16) looking north-east.



Photograph 9. Former location of the Hazardous Waste Hopper Storage Area (SWMU 8).

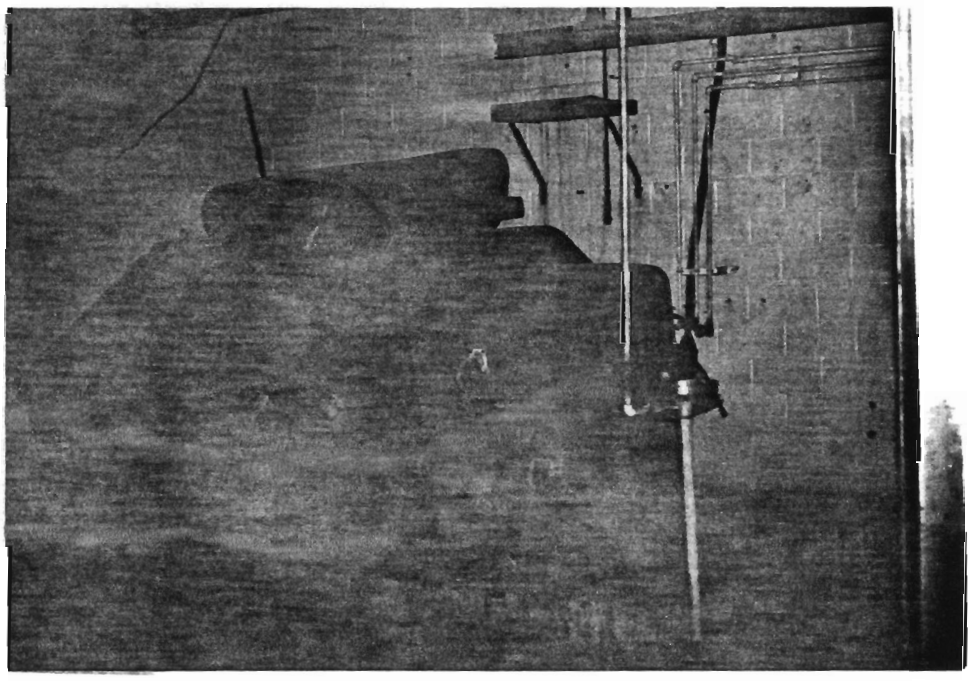


Photograph 10. Former location of Factory B looking southwest.



Photograph 11. Former location of Factory A looking southwest.

Photograph 12. Photograph of polyflex bag located in the West Baghouse (SWMU 1) accumulating D008 wastes.



Photograph 13. Decontaminated plastic bins located in the Less Than 90-day Storage Area (SWMU 5).

APPENDIX B

SITE INSPECTION FIELD NOTES
CORNING GLASS, MAIN PLANT

Property of Barbara Hendricks

DPRA Incorporated

Address 245 E 6th St. Ste 813

St. Paul Mn 55101

Telephone (612) 227-6500

This Book is manufactured of a High Grade 50% Rag Ledger Paper having a Water Resistant Surface, and is sewed with Nylon Waterproof Thread.

INDEX

Corning Glass - Brown Plant

Corning, NY

March 8, 1988

CAPT Lois Inspection

Corning Glass Main Plant

1:15 pm

Blake [illegible], Corning
Walt [illegible], Corning
Craig [illegible], DPRA
[illegible], DPRA

Facility Background
- used to make all of Pyrex ware at the [illegible] facility - smoky colored pyrex
- microwave dish ware
- thermometer tubing (was & still are made here)
- numerous hand shops
  - hand blown
- B facility - pressed glass (used)
- C facility still has thermometer tubing

Tl
5(
an
pr

2)

This is the original facility
- first building 1870
especially glassware

only manufacturing left is
Hammondsport Bldg - C Factory
- Bldg 36
Powerhouse on site
- removed boilers
- only at 25% of previous capacity
Tradesshops for support

Consumer Science products
Offices in many of the buildings
that were tore down
Used to be 25 glass production
tanks - now there is 1
tank = furnace

Current Waste management practices

- 30c tank flammable tubing operation (planned)

West baghouse

- collects tank + mixhouse

4 chamber baghouse

mixhouse - mix raw materials

raw material in bags

Steel drums

- lead + arsenic oxide
- lead

raw materials

baghouse dust - EP Toxic for Pb + As

approved for D004, D005, D006 + D010, D008

collected in poly-lined bags + shipped off site

stored in storage area

accumul. time area

4/bags - one for each chamber

Waste oils
- Store from the Powerhouse
- periodic generation
- Truck Step - 1-55 gal drum every 4 to 5 months

Paints
- 1 55 gal drum of thinner every 1 year

Degreaser
- 55 gal drum
- Serviced by Safety Klean

Did clean out as buildings were demolished

West bay house
- put in 1974
- still active

(A) North baghouse
- back of building 37
- demolished 1988
- installed ~ 1974
- Same type of waste as West baghouse
D004, D005, D006, D008, D010
- more Se & Cd than C Testing
- 3 chambers

B - West Baghouse
- 4 chambers
west wall of Bldg 36

C - NE corner of 37
West Mixhouse Dust Collector
- old mixhouse
- served the mixhouse
- particulates from the mixers in Bldg 38
- demolished - 1987
- installed ~ 1970
maybe late 60's

same wastes as baghouses

D. - Haynes Dual Hopper
- used to collect dust in hoppers then switched to keep (1985)
- roll offs 20 or 30 yd^3
- not windows
- half concrete, half soil
- tested soils during closure

E. - Anderson 2000 Filter
- 2nd floor of building 36
- used to coat bottom of Pyro ram microwave dishes w/ Tin oxide
- generated corrosive wastes
- filter - scrubber - generated D002 wastewater
- really a generation

collected was in 600 gal storage tank - was on the first floor

(7)

in the hazardous waste storage area - not in use now but still in same place as when used

- filters also hazardous
  - collected in hoppers & took to haz waste storage area

F - EC coating used filter storage in hazardous waste storage area - 2 - 2½ yd³ plastic hoppers - lined w/ bags
- haz waste storage - final floor below F.S. bldg 36

EC - electroconductive
- spray so bottom of pan gets hot in microwave
- stored used filters from Chadwin job

G - EC coating hazardous liquid storage area
- 1 empty 1,000 - gal tank

circle 55 gal drums –
drums stored in the hazardous
waste storage area
– Stannic chloride, tin
oxide – corrosive
same location as E, F
– 1980 - 1985 for EC coating
processes
Shut down '84
Clean up '85

H – Cr Treatment Facility
– in east side of Bldg 9
– first floor
– reduce Cr, filter, &
discharge the effluent
– generated sludge + filter
media
– discharged through 002
– filtered & sent off-site
– D007
– Start up – 1970 or before
Shutdown – ~~1980~~ (?) 1983
removed – 1984
↳ Decontamination

precipitated Cr from
wastewater
- all tanks aboveground, +
indoors
- no releases from units
- did expect SPDES elimination
(file material)

F - is the hazardous waste storage
that will / is being used now
(currently empty)

-

I - oil separation tanks
- gravity settling tank
- cool cullet, pumped
to treat
- Recirculate same water
cullet - crushed glass

Bldg 54 - 2A
Bldg 8 - 5A

- cullet recycled

- basement of bldg
- SA tank - ~~20~~ 14 ft x 60 ft x 10 ft deep
  - plate steel on concrete pad flooring install
  - open on the top

2A tank - U-shaped 28 x 70 x 10 ft deep
- plate steel above flooring

baffles

5 - Faced ~~oil~~ emulsified oil system
- for Shea spray water treatment
- in SA tank

Shea Spray - water w/ emulsified oil mist

Spray water, oil on sheet
- for fiat glass gobs to go from tank to a press

Steer spray water used as lubricant

- all shut down by 1982
  water soluble oils

A. Factory - exact location unknown

K. Solids Clarifier + Vacuum Filtration
- grinding + polishing in Bldg 5 - (of glass)
  all types glass - hits, Pb, Cr, Cd
  - solid non-hazardous
- Bldg 3, 5, 27 + from mason shop
- removed 1988
- ~~mid 70's~~ 1975 - 77 for installation
- Bldg 15 - 20
  Rotary drum - 4 ft diameter
  Clarifier - 14 ft x 20 ft
  cone [illegible] on bottom

L - 8 feet diameter
10 feet high
above ground
water through filters

(15)

- underground -
Rotary Drum filter
Shipped to non hazardous landfill

L - new Faced Outfall
  vault system
- now called 005
- permitted discharge
- now gone
- replaced w/ a smaller newer system
- was an oil/water separator
- removed 1988
- installed mid 70's

M - new oil water separator
- discharges to POTW
- collect oil in drum
- oil from steel condensate
- steam touched w/ oil mist
- recycled steam goes through this system
- installed 1988
- steam to the POTW
  no recycle of H_2O

Waste Thinner Accumulation Area
- one 55 gal drum
- concrete floor
- indoors
- Bldg 65

Truck Shop Accumulation Area
- Waste Oil Collection
- 1 55 gal drum
- indoors
- no drains

Cooling Tower for Baghouse
- air comes through here
- used to be used for cooling [illegible] entering the baghouse.

(13)

N - Electrostatic Precipitator
for the 5th tank
collected non hazardous dust
-- As - but at < EPToxic levels
- 1985 removed
- installed 1974 - 75

O - incinerator
- installed 1982
- removed 1986
- demolished
- incinerator sold
- paper, municipal refuse
- operational problems
- permitted by the state

~~P. Baghouse ...~~

To the best of their knowledge
No landfilling on the facility
No other units

(14)

no releases or spill reports
- excursions on outfalls -
covered under SPDES

Outfalls 003, 004, 005
- also are fed by
City storm waters
- flows under the plant

SWMUs to see

✓ (1) demolished areas
✓ (2) west baghouse
✓ (3) west baghouse poly bags
✓ (4) Hazwaste Storage areas
✓ (5) Bobcat truck ((Hazwaste area)
✓ (6) Hoppers (Haz. waste area)
✓ (7) Powerhouse Oil/Water Separator
✓ (8) Incinerator
✓ (9) (Waste oil accumulation
(9) Truck Shop
✓ (10) Paint Shop accumulation

Copy of Photos to Blake Manuel

Incineration
- across the fence
- property not divided for flanks
- Repletation plant next to this on west (coming facility

Oil Water separator
~~#~~ 2 ft x 3 ft x 2 ft deep
baffled
drains to POTW
covered w/ removable lid
- steel
sitting on a 3 foot high ~~platform~~ chamber
- oil collects in the bottom
oil drains to a drum - manually
- 55 gal drum of oil every six - 8 months

Nonhazardous waste Storage Area

- Concrete covered w/ brick
- closed under approved Closure plan
- cut up 600 gal Steel tank - cleaned + cleaned hoppers

3:45 final inspection

Property of _____

_____

Address _____

_____

Telephone _____

INDEX

CAPTCOLS Inspection
March 8, 1989

Corning Glass, Corning, New York.

1)

Arrived at facility at approximately 1:00 PM met with

Barbara Hendricks, DPRA
Craig Larsen, DPRA
Walter Jones, Corning
Blake Manuel, Corning

Products

originally made all of the pyrex ware, micro wave dish line, thermometer tubing (still being manufactured), hand blown glass and pressed glass.

Oldest building around 1870

Only surviving plant in C-factory, building 36 which manufact[ures] thermometer tubing. Primary plant still survives operating at about 25% capacity. Rest of buildings

the office and do not generate any wastes of concern.

Current Waste Management

30C Thermometer tubing operation. West bag house. Sources both the tank and the mix house

Tank, is a furnace, Mix house, used to mix raw materials prior to melting. Raw materials include Pb and As.

Baghouse dust is due for Pb and As (D005, D007, D008, D010)

Baghouse stream waste in bags for [illegible]

than 90-days. 90-days begins after bag removed from accumulation point (bag house).

Waste oil are shipped off-site. Have truck ship which generates a 55-gallon drum every 4-5 months

Paint cleaners use PD80 wastes generate about a drum a year.

Have safety clean degreaser which service and about once every 6 weeks.

CSX assisted in demolition of main plant for disposal of chemicals.

West bag house installed in 1974.

(4)

Past Waste Management Units.

North Baghouse (A)
- N of Bldg 27
- demolished 1988, installed in ≈1974
- handled glass tanks in B-factory, managed same type of materials as W-baghouse
- 3 chambers

West Baghouse (B)
- W of Bldg 36
- 4 chamber baghouse
- installed ≈ 1974 Currently Active

West Mixhouse Dust Collector (C)
- NE corner of 27
- Emissions from particulates from mix process which were mixed in Bldg 38
- Demolished about 2 years ago. Installed approx 1970.

- some waste rinsing as baghouse

Hazardous Dust Hopper (D)
- collection area for materials from units A, B, C. Placed in hopper up to approx. 3 years.
- 20-30 yds roll off
- located 1/2 driveway and 1/2 gravel.
- Closed under DEC in 1986.

Anderson 2000 Air Filter (E)
- located 2nd floor of Bldg 36
- Coated bottom of dishes w/ Tin Oxide coating and acid which generated corrosive waste
- essentially a scrubber which discharged to a tank

- Corning resubmitted closure and did not include this unit since they considered it a generation point.

EC Coating used filter (F) storage

- Bldg. 36 first floor
- used for microwave coating (EC Electro conductive, Tin Oxide
- Used to store filter from Anderson 2000
- 2 - 2½ yd³ hoppers

EC Coating hazardous liquid (G) storage

- Holding tank which was drained into 55-gal drum. Would haul off site when 60 or 70 drums were

(2)

stored
- liquid from Anderson unit
- tank and drums located in same area

EC units operation from (H) ~~1979 to~~ approximately 1980 to 1984.

Cr Treatment facility
- located east side of Bldg 6
- treatment facility to convert Cr from plating shop
- did generate some sludge (primarily filters) filters tested for Cr.
- Started ~~in early 1970s~~ prior to 1970s shut down in 1983
- discharged to out fall 002. ~~Equipment removed~~ ~~in~~.
- Closure in 1984.
- entire unit located

indoors, above ground
- no releases to environment
basis submitted to SPDES

Treatment for OOS
- in bldg 6 based on oil separation system.
- gravity separation of oil and water. Also heat filter for removal of collet (removal in process).
- 2 tanks. 1/2 inch carbon steel
approx w/ SA 20 feet by 60 feet 8 feet deep.
approx w/ 2A ~~40 feet by~~ twice the size of SA, approx 24 by 70 feet.
- Facet emulsified oil system. to remove water w/ emulsified oil from steam spray, used as a lubricant for

glass shut, Unsure if 2 different systems from 5A tank: Would have been shut down in 1982.

1A tank
2A tank
4A tank
5A tank

} Glass tanks Process

Pretreat to OV4

- had a clarifier for grinding and polishing of glass. Pyrex glass does not use metals and thus free nothing. Solids removed to subtitle D landfill
- Use for non-ling waste (included re-tacking)
- demolished 1988, installed mid 1970s
- Clarifier 40 feet dia by 20 feet, [illegible] located

underground lead to rotary drum filter for drying.

Powerhouse

- permitted SPDES and bill
- Facet oil system
- located in building 45
- Oil/Water separator
- torn down last summer
- 15 to 20 years
- 6 feet diameter 10 feet high
- above ground tank.

Powerhouse Oil/Water Separator

- discharges to POTW
- treats steam condensate which is treated w/ oil for lubrication (installed last year)
- ~~etc~~ constant discharge not regulated.

Electrostatic Precipitator

- used to service 5A tank.
- Collected more hazardous

dust from pyrex
- removed 1985, installed 1975

- Incinerator / Waste heat Boiler
  - burned paper & wood
  - operated from 1982 to 1986
  - sold and moved off-site
  - Air permitted by DEC

- To best of knowledge no landfills ever located at site

- ~~All~~ No releases to best of knowledge. ~~would have been~~ Have been excursions on SPDES outfalls.

SWMUs identified (actual)
- West Baghouse
- Baghouse ~~drum~~ storage area
- powerhouse oil waste sys
- less than 90-day drum storage area

- Waste Oil tank
~~Demolished~~
- Paint Storage Area

finished introductory meeting at 3:00

P-1 paint spray area. 2 55 gallon drum stored for paint wastes

P-2 waste oil collection. 1 55 gallon drum located indoors. No drains no evidence of release

P-3 west bag house

P-4 hopper prior to bag house (settling bags
[illegible] prior to bag house

P5 restart of P-1

P-6 Former location of memoratee

P-7 Powerhouse oil/water separator, Gravity separation using baffels. oil drains to tank located w/ unit. when full drummed and shipped off-site (1 drum every 6 to 8 months)

P-8 Former location of Powerhouse oil/water sep.

P-9 Hydrogen storage area (no longer in this location)

P-10 Former location of B battery (Page 52 in background)

P-11 Former location of A battery

F

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5(
ar

P-12 - West beginning, interior photographs

P-13 - EC filter storage bypass. Were stored in this room when in use. Room also used for any hazardous waste generated on-site. Room has been de-contaminated

Finished site tour at 3:00 PM