

**PRELIMINARY
RCRA FACILITY ASSESSMENT
CORNING, INC.
STEUBEN PLANT/FULTON STREET
FACILITY
CORNING, NEW YORK
Work Assignment: R02040
(Ref. No. 1-635-393)**

**Prepared for:
U.S. Environmental Protection Agency**

Contract: 68-W9-0003

TRC

TRC Environmental Corporation

TRC formerly Alliance Technologies Corporation

TRC Environmental Corporation

November 23, 1993

Mr. Paul Counterman
Chief, Bureau of Western Hazardous Waste Programs
Division of Hazardous Substance Regulation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233

RECEIVED

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V. J. ...
DIVISION OF ...
SUBSTANCE REG.

Reference: Contract No. 68-W9-0003, TES-6
Work Assignment No. R02040
Preliminary RCRA Facility Assessment
New York State
(Ref. 1-635-393)

Subject: Deliverable: Preliminary RCRA Facility Assessment
for Corning, Inc., Steuben Plant/Fulton Street
~~NYD002040921~~

Dear Mr. Counterman:

At the request of the U.S. Environmental Protection Agency, enclosed for your review is one copy of the Preliminary RCRA Facility Assessment Report for the above referenced facility. Comments and additional information should be submitted to Mr. John G. Nevius, U.S. EPA Work Assignment Manager. Due to contractual requirements between EPA and TRC, it is requested that your review be expedited in order to incorporate your comments by our December 2, 1993 contract expiration. Any efforts by NYSDEC to meet this date would be greatly appreciated.

Mr. Nevius' address is as follows:

Mr. John G. Nevius
Work Assignment Manager
U.S. Environmental Protection Agency
Air and Waste Management Branch
(2AWM-HWF-Room 1037)
26 Federal Plaza
New York, NY 10278

Questions concerning this submission should be directed to Mr. Nevius at (212) 246-9578, or the undersigned at (212) 349-4616.

Very truly yours,



Michael F. Clark, P.E.

cc: John G. Nevius/EPA Work Assignment Manager (w/o)
Douglas Sullivan/TRC TES-6 Regional Manager (w/o)
Dixon Rollins/NYSDEC-Region 8-Hazardous Substance Engineer (w)
TES ZPMO

PRELIMINARY RCRA FACILITY ASSESSMENT
CORNING, INC.
STEUBEN PLANT/FULTON STREET FACILITY
CORNING, NEW YORK

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Air and Waste Management Division
26 Federal Plaza
New York, New York 10278

Work Assignment No.:	R02040
EPA Region:	II
EPA Site/Facility I.D. No.:	NYD002040921
Contract No.:	68-W9-0003 (TES-6)
TRC Document No.	NY-R40.R20
TRC Project No.:	1-635-393-3-2000-0
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Date Prepared:	November 19, 1993

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1.0 INTRODUCTION

TRC Environmental Corporation (TRC - formerly Alliance Technologies Corporation) was requested by the U.S. Environmental Agency (EPA) under EPA Contract No. 68-W9-0003 (TES-6), Work Assignment No. R02040, to perform a Preliminary RCRA Facility Assessment (RFA) of the Corning, Inc., Steuben Plant, Fulton Street facility, New York (EPA I.D. No. NYD000824359). Tasks were performed in accordance with the Preliminary RFA Scope of Work provided by EPA on June 8, 1993, and TRC's Work Plan, dated July 14, 1993.

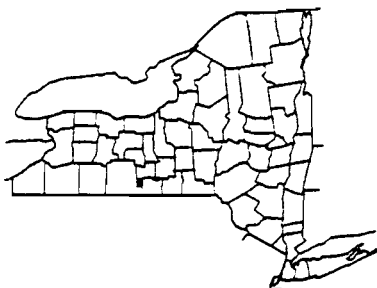
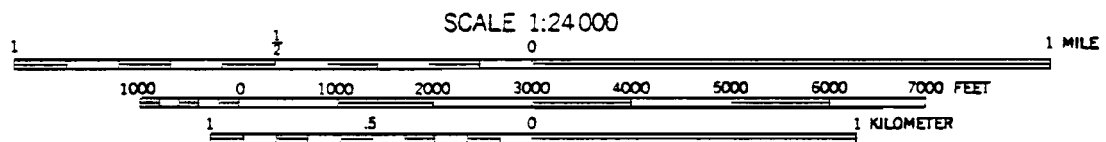
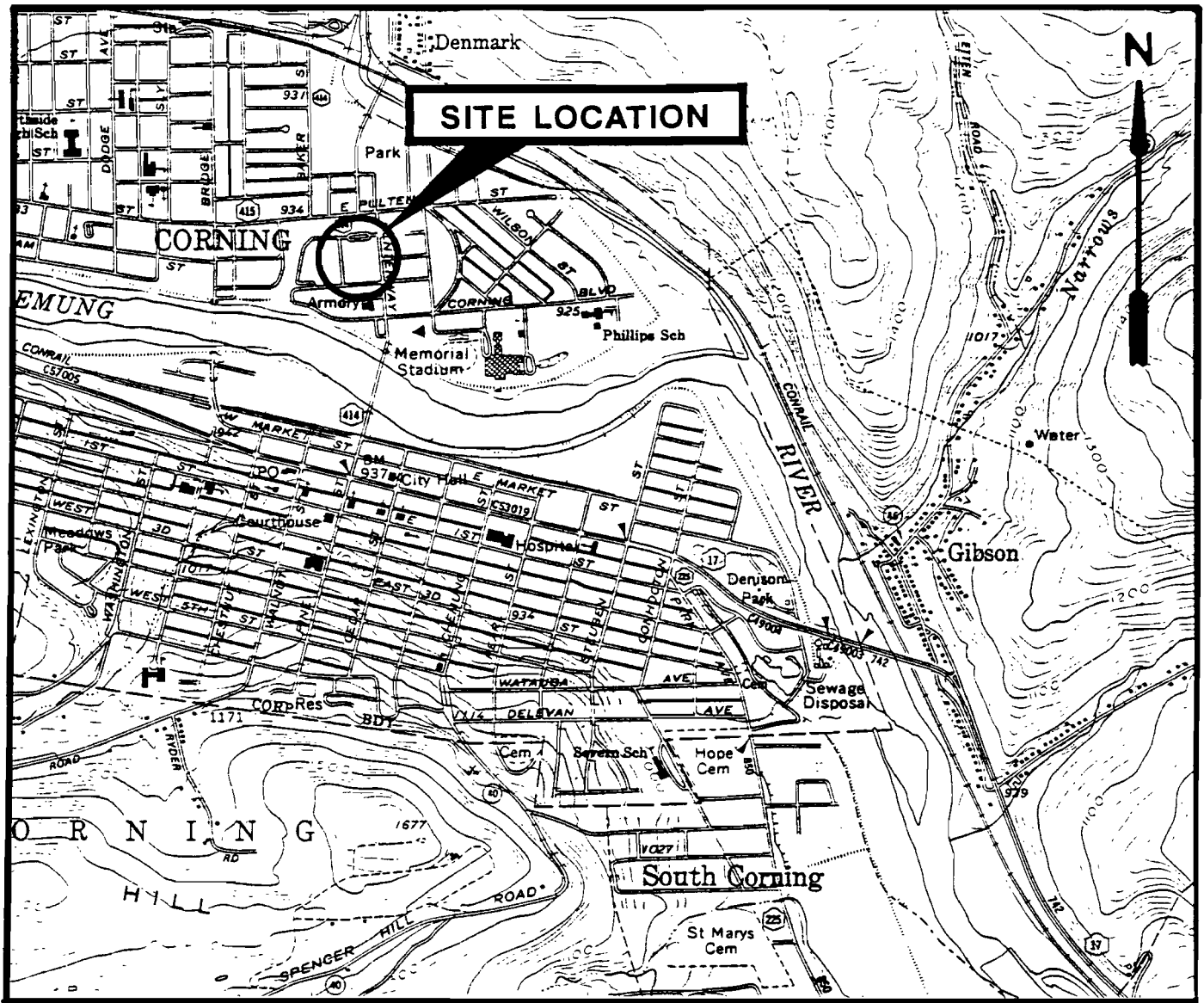
The purpose of the Preliminary RFA is to identify, gather information on, and evaluate the potential for releases to the environment from areas of concern (AOCs), including solid waste management units (SWMUs), hazardous waste management units (HWMUs), and areas where releases may have occurred in the past. In addition, the Preliminary RFA will provide information for EPA use in the ranking of this facility using the National Corrective Action Prioritization System (NCAPS).

Background information for this Interim Preliminary RFA Report was obtained through file searches conducted at the New York State Department of Environmental Conservation (NYSDEC), Albany, New York, Bureau of Hazardous Waste Facility Compliance, Bureau of Wastewater Facilities Design, and the Bureau of Air Application, Review and Permitting. In addition, facility files were reviewed while conducting a Visual Site Inspection (VSI) of the Corning facility on September 30, 1993.

2.0 SITE DESCRIPTION

Corning Incorporated manufactures and finishes Steuben lead crystal in their Steuben Plant and adjacent Fulton Street facility, which are located at Museum Way (formerly Fulton Street) in Corning, New York. The Steuben Plant is located within the Corning Glass Center, which also houses the Corning Museum of Glass. The site's location is provided in Figure 1 and a site sketch is provided as Figure 2. The Fulton Street facility is south of the Steuben Plant, across from the Corning Glass Center. The vicinity is mainly commercial, with several Corning, Inc. office buildings in the area. The area's topography is relatively flat, but gradually slopes down towards the Chemung River to the south of the site (TRC, 1993a).

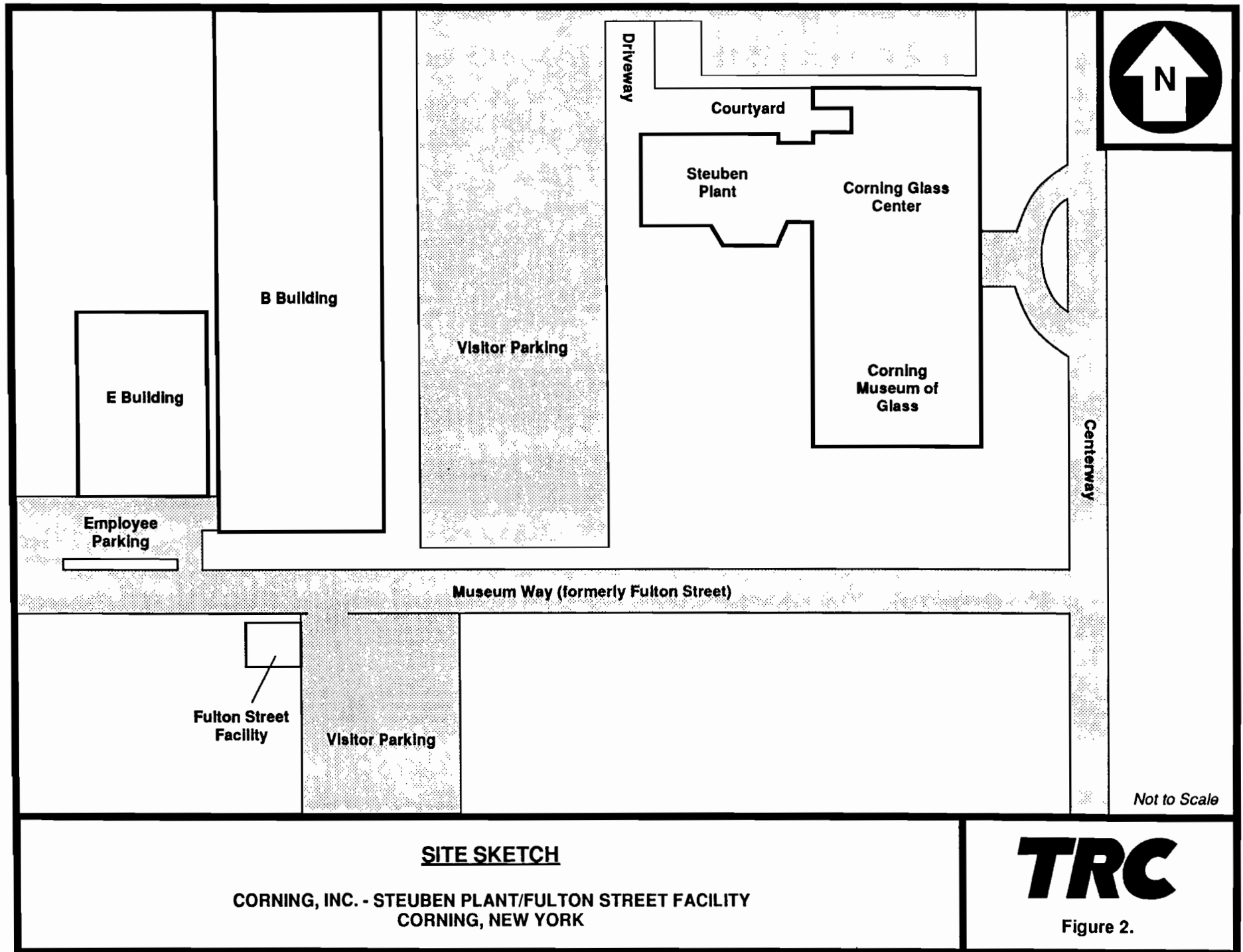
The Steuben Plant is a one-story, 21,000 square foot building that contains several rooms and areas that are used for activities such as glass blowing and shaping, annealing, cutting, grinding, polishing, and inspection. The Fulton Street facility is a 7,100 square foot building mainly used for grinding, polishing, and storage of finished products. All hazardous wastes generated at the facility are accumulated at the Fulton Street facility prior to off-site disposal. The outdoor areas for both the Steuben and Fulton facilities are mostly paved and secured with a chain link fence. An electrical



QUADRANGLE LOCATION

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP
QUADRANGLE, CORNING, N.Y.

TRC Environmental Corporation 18 Worlds Fair Drive Somerset, N.J. 08873		
CORNING, INC. STEUBEN PLANT/FULTON ST. FACILITY MUSEUM WAY, CORNING, N.Y.		
SITE LOCATION MAP		
Date: 9-9-93	Proj.# 1-635-393	Fig. 1
WORK ASSIGNMENT NO. R02040		



substation operated by New York State Electric and Gas (NYSEG), is located west of the Fulton Street facility. Surface water runoff from the NYSEG property flows towards the Fulton Street property.

The three principal waste streams produced by the plant include used finishing media, collected bag house dust, and out-of-specification lead glass. The first waste stream, which is of the most concern, is generated by sawing, grinding and finishing of lead crystal in the Steuben Plant and the Fulton Street facility. This waste media is composed of lead glass fines, carborundum, aluminum oxide, pumice, and cerium oxide. Some of the used finishing media is collected as a dry waste and is disposed of as lead-bearing hazardous waste. Other finishing processes involve mixing the media with water to form a paste. The wastewater is deposited into floor trenches to allow solids to settle out. The waste sludge is removed from the floor trenches regularly and stored at the HWMUs (AOCs #3 and #10). The sludge is considered hazardous due to its lead content. Sludge is removed from the facility by a licensed waste hauler and is disposed of at a licensed treatment facility. Water in the Fulton Street facility floor trenches flows to a wastewater filtration unit. Contact wastewater from the Steuben Plant flows directly to the town sewer. It does not appear that there are any permits allowing Corning Inc. to discharge lead to the Town of Corning sewer system or wastewater treatment plant.

A second hazardous waste stream produced by the plant is fugitive dust collected by a bag house dust collector. The control device collects fugitive dust that escapes when the glass melting refractory tank is filled with raw materials containing lead oxide. The collected bag house dust is disposed as hazardous waste because it is TCLP extractable for lead.

A third waste stream is out-of-specification lead crystal. Approximately two-thirds of out-of-specification lead crystal is remelted in the refractory tank; the other third is reused by a Corning plant in Pennsylvania. Small amounts of waste lead glass and floor sweepings are disposed as hazardous waste although this waste stream is not generally considered hazardous since the lead is bound by the glass matrix.

TRC identified twelve (12) AOCs during the file review and the VSI. These areas, including their spacial location, containment features, years of use, and stored and release status, are described below and are summarized in Table 1. The locations of the AOCs are depicted on Figures 3 and 4.

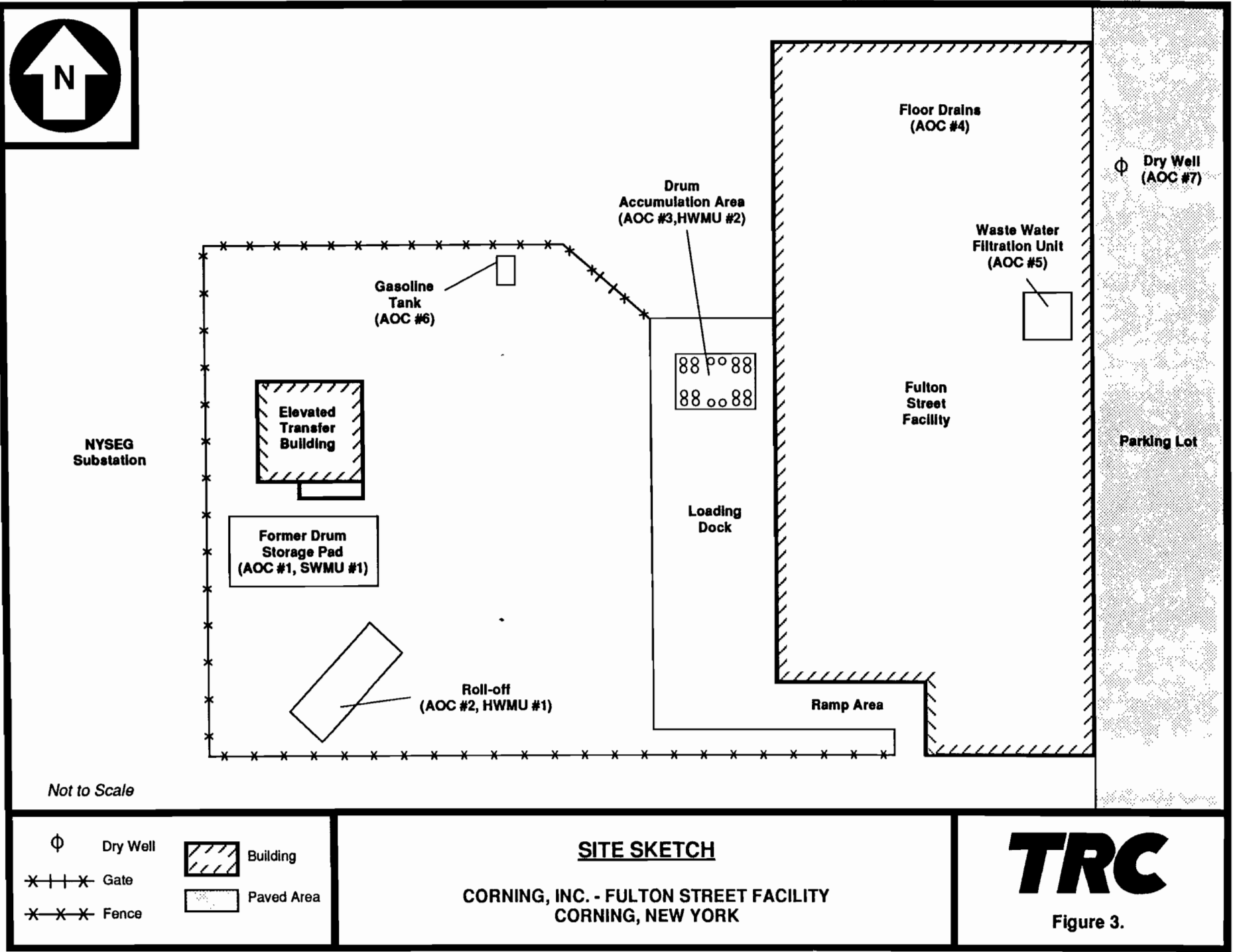
AOC #1 is the Former Drum Storage Pad. It is located on the west side of the Fulton Street facility property adjacent to a fence separating the property from a NYSEG electrical substation. This area, designated as SWMU #1, was used from 1980 to 1990 to store hazardous waste from the Steuben Plant prior to off-site disposal (CDM, 1990). Originally, the area was paved and diked. In December 1990, the SWMU went through the closure process and has been the subject of several investigations due

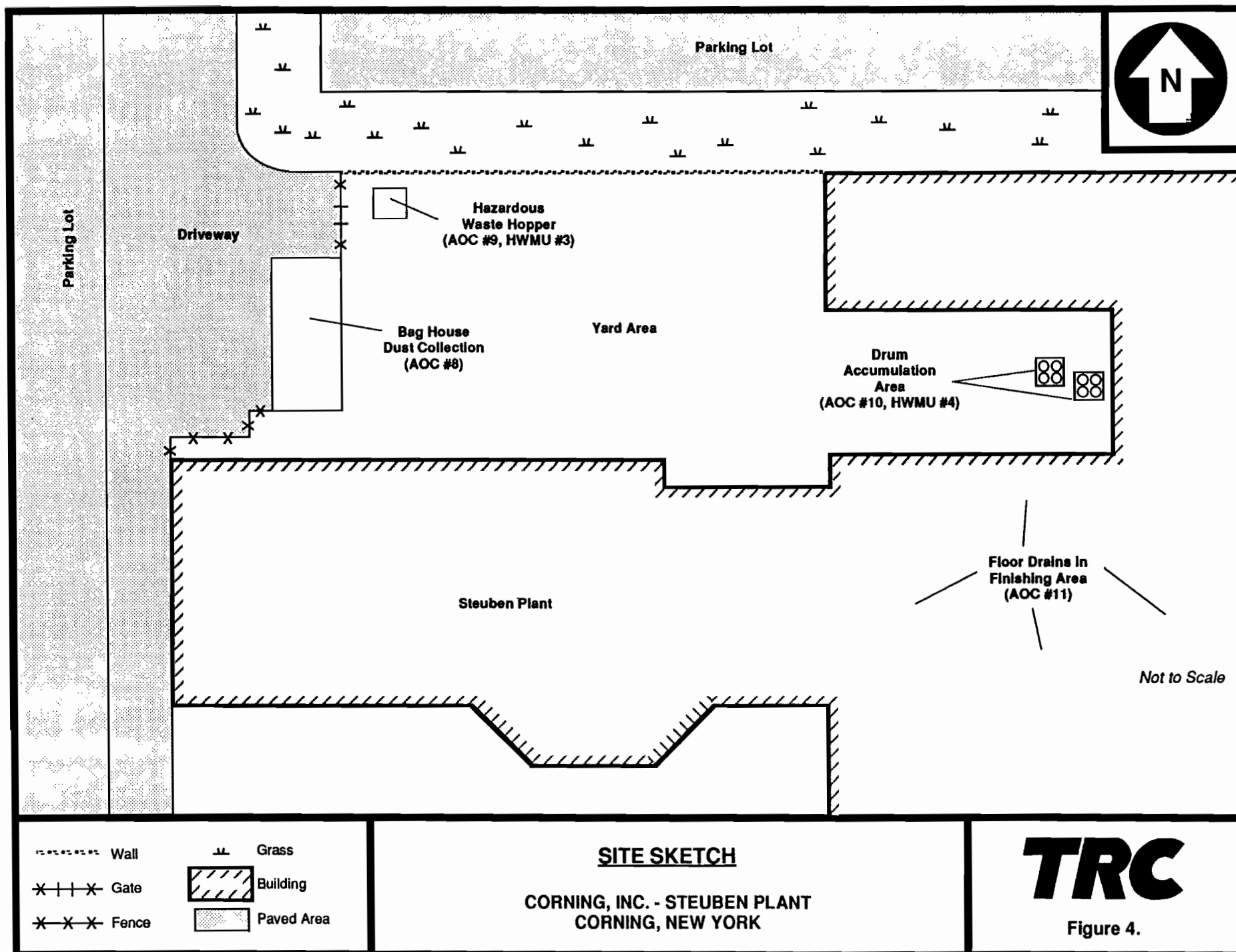
TABLE 1. AREAS OF CONCERN

AOC No.	Description	Location	Operation Dates	Release Status	Reference	Medium/Compound Detected	Off-site Migration Potential
1 (SWMU)	Former Drum Storage Pad	Fulton St. Facility	1980-1990	Probable release	CDM, 1990 TRC, 1993a	soil/lead, PCBs	Unknown
2 (HWMU)	Roll-off containing lead bearing solid waste	Fulton St. Facility	1991-present	no release	TRC, 1993a	NA	low; solid waste is adequately contained
3 (HWMU)	Drum accumulation area	Fulton St. Facility	1990-present	no release	TRC, 1993a	NA	low; solid waste is adequately contained
4	Floor Drains	Fulton St. Facility	1970-present	no release	TRC, 1993a	NA	low; sludge removed weekly, water treated at AOCs
5	Wastewater filtration unit	Fulton St. Facility	1983-present	potential release	TRC, 1993a	lead	unknown; lead contaminated wastewater discharged to town sewer
6	Gasoline AST	Fulton St. Facility	unknown-present	no release	TRC, 1993a	NA	low; AST in good condition
7	Dry well	Fulton St. Facility	unknown-present	potential release	TRC, 1993a	NA	low; receives non-contact cooling water
8	Bag house dust collector	Steuben Plant	1991-present	potential release	TRC, 1993a	NA	low; control device

TABLE 1. AREAS OF CONCERN							
AOC No.	Description	Location	Start-up/ Closure Dates	Release Status	Reference	Medium/ Compound Detected	Off-site Migration Potential
9 (HWMU)	Hazardous waste hopper	Steuben Plant	1991-present	no release	TRC, 1993a	NA	low; solid waste adequately contained
10 (HWMU)	Drum accumulation area	Steuben Plant	unknown-present	no release	TRC, 1993a	NA	low; solid waste adequately contained
11	Floor Drains	Steuben Plant	1951-present	possible release	TRC, 1993a	NA	unknown; possible that lead contaminated wastewater discharged to town sewer
12	Satellite accumulation areas	Fulton St. /Steuben Plant	unknown-present	no release	TRC, 1993a	NA	low; solid waste adequately contained

NA - Analytical results not available.





to the presence of lead and PCBs in the soils. Although contaminants were detected, there have been no documented releases from this AOC (CDM, 1990). A further discussion of the investigations is presented in Section 3.0. The site has recently been excavated and backfilled and the surface is currently covered with gravel.

AOC #2 is a train roll-off containing lead bearing solid hazardous waste (D008) and is located adjacent to the Former Drum Storage Pad. During the VSI, the roll-off was covered and appeared to be good condition; therefore, it appears that the wastes are adequately contained. Wastes placed in the roll-off include dust collected from the bag house dust collector, floor sweepings, and discarded leaded glass. The roll-off is removed by a licensed hauler to a treatment facility when full or every 90 days, whichever comes first (TRC, 1993a).

AOC #3 is a drum accumulation area. Drums containing lead bearing solid hazardous waste are accumulated on an open-walled, roofed loading dock at the Fulton Street facility prior to off-site disposal. Wastes contained in the drums are labeled D008 and include contaminated grinding and polishing media and sludge from floor drains. Although the waste is solid, the drums are surrounded with adsorbent spill booms. The drums of waste are accumulated for less than 90 days and shipped by a licensed waste hauler to treatment facility. There are usually between 17 and 22 drums in a shipment (TRC, 1993a).

AOC #4 are floor drains that are used to collect contact water from grinding and polishing machines at the Fulton Street facility. These trenches (floor drains) are fitted with temporary steel grates. Lead containing sludge settles in the trenches and is removed and is stored in the drum accumulation area (AOC #3) once a week. The sludge is drummed and shipped as hazardous waste while the contact water is treated by the Fulton Street wastewater filtration unit (AOC #5) (TRC, 1993a).

AOC #5 is the Fulton Street wastewater filtration unit which accepts wastewater from floor drains at the Fulton Street facility. Wastewater is treated by ion absorption prior to discharge to the town sewer. The filtration unit utilizes diatomaceous earth for treatment. Discharge water from the unit is inspected visually on a daily basis. The filtration unit is cleaned once a week and serviced quarterly. Concentrations of lead in the effluent are measured monthly (TRC, 1993a). Corning has stated that the August and September 1993, lead concentrations were 4.9 mg/L and 3.1 mg/L, respectively (Corning, 1993). Permitted discharge concentrations of lead to the Town of Corning sewer system are unknown.

AOC #6 is a 250-gallon steel AST containing gasoline. It is located near the gate inside the northern fence of the Fulton Street facility. The AST appeared to be in good condition (TRC, 1993a). The AST is covered by a roof and is located in a steel tub which provides secondary containment.

AOC #7 is a dry well located at the Fulton Street facility which receives non-contact cooling water from machinery at the facility. This dry well is regulated under a State Pollution Discharge Elimination System (SPDES) permit. No releases of hazardous materials to the dry well have been documented (TRC, 1993a).

AOC #8 is a bag house dust collector which is located on the western side of the Steuben Plant Yard. The control device collects fugitive dust that escapes when raw materials containing lead oxide are melted in the refractory tank. The collected bag house dust is accumulated at AOCs #9 and #2 prior to disposal as hazardous waste. Approximately four one-cubic yard bags of waste are generated per month (TRC, 1993a). Construction of the bag house commenced in 1991; however, the bag house is not yet completely on-line due to ongoing installation problems. The control device is currently operating on a permit to construct, although Corning possesses an air emissions permit (TRC, 1993a). Because the bag house is not completely operational, there is a potential that fugitive dusts are being released to the atmosphere.

AOC #9 is a hazardous waste hopper (labeled D008 waste) located in the Steuben Plant yard adjacent to the bag house dust collector. Bags of fugitive dust from the bag house and glass sweepings are accumulated in the covered hopper. The wastes are moved to the roll-off at the Fulton Street facility (AOC #2) every two weeks (TRC, 1993a).

AOC #10 is an area in the Steuben Plant yard that has been designated for the temporary accumulation of drums containing leachable lead waste (D008). The drums contain used pumice, sludge from drains, vacuum contents, and coolant contaminated with lead glass chips. The drums are temporarily accumulated in the Steuben Plant yard which is paved but not diked, and moved to the Fulton Street facility every 30 days (TRC, 1993a).

AOC #11 are floor drains at the Steuben Plant. Contact water from grinding and polishing machines in the finishing area of the Steuben Plant drains to trenches in the floor which are covered with metal grates. The sludge-like solids settle out in the floor drain system. These solids, which are considered hazardous waste due to their lead content, are removed every two weeks. The lead containing sludge is stored temporarily at AOC #10 and then moved to AOC #3 prior to off-site disposal. The contact water is discharged to the town sewer which is connected to the Town of Corning Wastewater Treatment facility. Because the solids contain lead, it is probable that the effluent wastewater contains lead. However, according to Corning Inc. representatives, the effluent has not been tested to determine the lead concentration (TRC, 1993a).

AOC #12 are satellite accumulation areas which are located near the polishing, grinding, and sawing areas within the Steuben Plant and Fulton Street facilities. Drums of contaminated pumice and grindings are placed in the satellite areas daily. When necessary, spilled lead-containing raw materials are vacuumed into a solid

hazardous waste barrel. All drums are labeled and in good condition; therefore, the wastes appear to be well contained.

3.0 FACILITY ACTIVITY/HISTORY

The Steuben Plant was built by Corning Glass Works in 1951 on the site of a brick factory. The Fulton Street facility was purchased in 1970 from NYSEG. The Steuben Plant and Fulton Street facility currently employ approximately 200 people.

Raw materials which include lead oxide and other metal oxides are melted in a refractory tank. The molten leaded glass is then gathered, blown, and shaped by skilled craftsmen to create high quality crystal giftware. The crystal objects are sent through a kiln for annealing (strengthening) and allowed to cool.

Depending on the design, the piece goes through various sawing, grinding, polishing, and finishing processes. Finally, the piece is inspected, packed, and shipped. Pieces that do not meet the inspection criteria are returned to the tank where they are re-melted. Pieces contaminated with metals cannot be re-melted, but are recycled.

In November 1980, Corning submitted a RCRA Part A Application to the NYSDEC to operate as a Treatment, Storage or Disposal Facility (TSDF) (SBG, 1991). Corning was granted interim status by NYSDEC to install and maintain a hazardous waste drum storage pad.

In 1984, Corning began the process of reclassifying the Steuben/Fulton Street facility as a generator only. Revised closure plans were submitted to NYSDEC in September 1984, November 1984, and October 1990. Formal approval of the closure plan was received by Corning in October 1990 (SBG, 1991). The closure plan was implemented in early December 1990 and the TSDF was officially closed on October 20, 1992 (TRC, 1993a).

Because the integrity of the asphalt drum storage pad (AOC #1) was reduced by several cracks and a two-inch diameter hole, Corning decided to remove the pad and one foot of soil beneath it (SBG, 1990). An area of approximately 27 feet by 32 feet was excavated on December 6, 1990 (SBG, 1991). The excavation was inspected by NYSDEC on December 11, 1990 (NYSDEC, 1991).

Soil samples were collected from the bottom of the excavation and from a low lying area adjacent to the pad where it was likely that stormwater had collected. Concentrations of lead detected in four samples collected during the closure ranged from 41 ppm to 5,100 ppm. The highest lead concentrations were observed in the low lying area. It was determined that this area was a "hot spot." On December 19, 1990, 40 cubic feet of soil were removed from this area. An analysis of the soils from the bottom of the new excavation revealed lead concentrations as high as 550 ppm. However, because a TCLP analysis of the sample had a lead concentration of 1.4 ppm,

which is below the action level of 5 ppm, NYSDEC required no further action (SBG, 1991).

Polychlorinated biphenyl (PCB) in materials concentrations of up to 202 ppm were detected in the excavated soil (SBG, 1991). It was determined that the PCBs were a result of activities of NYSEG, abutters, and former owners of the site. Further sampling for PCBs in 1992 performed by O'Brien & Gere Engineers, Inc. indicated concentrations ranging from less than 0.6 mg/Kg to 100 mg/Kg (O'Brien & Gere, 1992). Further sampling in March 1993 indicated concentrations ranging from 0.5 mg/Kg to 29 mg/Kg (O'Brien & Gere, 1993). In August 1993, NYSEG funded the removal of over 100 cubic yards of PCB contaminated soils (TRC, 1993a).

The Fulton Street facility has one SPDES Permit (NY-0087076), effective March 1, 1991 until March 1, 1996. The permit allows for discharge of non-contact cooling water to ground water from the Fulton Street facility dry well (Outfall #001). The cooling water is monitored for flow, pH and 1,1,1-trichloroethane. Flow and pH are monitored twice per month and the pH limit is 6.5 to 8.5. Concentrations of 1,1,1-TCA are limited to 0.005 mg/L and are monitored semi-annually. Approximately half a pint of 1,1,1-TCA is used per month at the Fulton Street facility to wipe molds. Corning personnel stated that permit limits have never been exceeded (TRC, 1993a).

The Steuben Plant possesses two NYSDEC air permits. The stack attached to the glass melting tanks and batch filling processes is regulated under permit number N1108. Permit number N1101 regulates the gritblasting operations (Corning, 1993). Any exceedances of these air permits are unknown.

4.0 ENVIRONMENTAL SETTING

The Fulton Street facility is located in a floodplain within 200 feet of the Chemung River, which is used for recreation and fishing. Chambers Street and a flood control dike lie between the site and the river (Corning, 1987).

All drinking and plant process water supplied to the Steuben Plant comes from the Town of Corning. The adjacent Corning Museum of Glass uses on-site ground water wells to supply their air conditioning system (TRC, 1993a). Additionally, ground water in the vicinity of the Steuben Plant is used to supply drinking water to the Town of Corning. The closest drinking water well is located near the Chemung River, within approximately 2000 feet west of the facility (TRC, 1993b).

5.0 PRELIMINARY EVALUATION

No documented releases of contaminants to the environment have occurred at Corning, Inc.'s Steuben Plant or Fulton Street facility. However, there is evidence that releases have occurred at the Fulton Street facility former drum storage area, since lead and PCB contamination were detected in samples collected during closure of the drum

storage pad in December 1990. The lead contamination was probably due to migration from lead-containing hazardous wastes that were stored at the drum storage area. The PCB contamination was most likely not related to activities at the Steuben Plant. Rather, the contamination probably originated from the adjacent NYSEG electrical substation.

Lead and PCB contaminated soils at the former drum storage pad located at the Fulton Street facility were excavated with the oversight of NYSDEC in 1990, 1991, and 1993. However, a data gap exists since during these investigations no ground water samples were collected in the vicinity of the former storage pad to determine if a release to ground water occurred.

It is possible that lead is being released to the Town of Corning sewer system via unpermitted wastewater discharges from the Steuben Plant and Fulton Street facility. Contact wastewater from the facilities is discharged to floor drains where sludge that is considered hazardous due to its lead content settles out. Wastewater from the Fulton Street facility floor drains is treated by a filtration system prior to discharge to the town sewer. Recent analyses of the filtration system effluent indicate lead concentrations of 3.1 to 4.9 mg/L which is significantly greater than the Federal MCL of 15 ug/L (Corning, 1993). Contact wastewater from the Steuben Plant flows through the floor drain systems directly out to the town sewer system. Although measurements of effluent lead concentrations are not available, it is likely that lead is discharged from the Steuben Plant.

The bag house dust collector, which was installed in 1991, is currently operating under a permit to construct. Although it is being used, the bag house is not yet fully operational. Therefore, it is possible that fugitive dusts are being emitted. Corning Inc. holds a permit for these emissions, although it is not known if the permit has been exceeded.

6.0 SUMMARY

Corning Inc. manufactures high quality lead crystal giftware at its Steuben Plant and Fulton Street facility. The plant employs approximately 200 people and has operated since 1951. Metal oxides including lead oxide are melted in a glass melting tank. The molten lead glass is blown and shaped by skilled craftsmen to create pieces which are then annealed, cooled, sawed, ground, and polished.

The main waste stream generated at the plant is from the grinding, polishing, and cutting of lead crystal. The waste generally consists of lead-contaminated grinding/polishing media which is either dry or a water-based sludge.

Lead and PCBs were detected in soils that were excavated below or near the former Drum Storage Pad (AOC #1). The area has been remediated; however, impact to ground water is not known since no ground water samples have been analyzed.

It does not appear that Corning Inc. has a permit to discharge lead to the town sewer system. However, it is probable that lead currently is being discharged to the town sewer via lead contaminated wastewater from the floor drain systems in the Steuben Plant and from the Fulton Street wastewater filtration unit effluent.

REFERENCES

CDM, 1990. CAPT LOIS Report prepared by CDM Federal Programs for U.S. EPA, Office of Hazardous Waste Enforcement, March 2, 1990.

Corning, 1985. Planning and Plant Layout prepared by Corning Glass Works, May 9, 1985.

Corning, 1987. EPA Checklist prepared by Kirtland C. Gardner, Vice President, Corning Glass Works, Steuben Facility, for U.S. EPA, March 6, 1987.

Corning, 1993. Letter to TRC Environmental Corporation from Tracy Anderson Quin enclosing information requested during site inspection. October 11, 1993.

NYSDEC, 1991. Post Closure Inspection Form prepared by; Joseph Gavin, Environmental Engineer, for NYSDEC, Division of Hazardous Substances Regulation, November 7, 1991.

OBG, 1992. Letter to Corning, Inc. providing results for soil samples collected on September 28, 1992. November 6, 1992.

OBG, 1993. Letter to Corning, Inc. providing results for soil samples collected on February 24, 1993. March 29, 1993.

SBG, 1991. Partial Closure Certification prepared by the Sear-Brown Group for Corning Glass Works, Steuben Plant, June 20, 1991.

TRC, 1993a. Logbook for Visual Site Inspection. Completed by C. Fortin, TRC Environmental Corporation. September 30, 1993.

TRC, 1993b. Personal communication by Cynthia Fortin, TRC Environmental Corporation, with the Town of Corning Water Supply Department. October 28, 1993.

APPENDIX A
ANALYTICAL DATA

4.0 ANALYSIS AND RESULTS

4.1 Confirmatory Sampling Analysis

The approved closure plan required the confirmatory soil samples and the background sample to be analyzed for lead using method SW846 - 7421. The analyses were conducted by Upstate, and the following results were obtained.

TABLE 1
CONFIRMATORY SAMPLING
ANALYTICAL RESULTS

Sample #/Location	Results
A, at low lying area	5,100 ppm
B, beneath crack in pad	87 ppm
C, beneath crack in pad	41 ppm
Background, outside facility fencing.	92 ppm

All original laboratory results are presented in Appendix B of this report. The results are discussed in sections 5.0 and 6.0.

4.2 Disposal Related Analysis

In order to characterize the excavated soil and asphalt for disposal, one composite sample of the three roll-offs of the excavated soil and asphalt was analyzed for the following parameters using the method indicated. The analysis of the sample for characterization for disposal was conducted by Corning, and the following results were obtained.

TABLE 2
DISPOSAL RELATED SAMPLING
ANALYTICAL METHODS AND RESULTS

Parameter	Method	Results
Silver	TCLP	<0.1 mg/l
Arsenic	TCLP	<0.1 mg/l
Barium	TCLP	1.9 mg/l
Cadmium	TCLP	<0.1 mg/l
Chromium	TCLP	<0.1 mg/l
Lead	TCLP	19 mg/l
Selenium	TCLP	<0.1 mg/l
Mercury	EPA 7470	<0.0002 mg/l
PCB's	SW846-8080	202 ppm
Corrosivity	EPA 1110	Non-corrosive
Ignitability	SW 846	Non-ignitability
Reactivity	SW 846	Non-reactive

All original laboratory results are presented in Appendix B of this report.



Laboratory Report

CLIENT CORNING, INC. JOB NO. 1403.092.517
DESCRIPTION Fulton St. Site
Corning, NY MATRIX: Soils
Date Analyzed 10-4,5-92 DATE COLLECTED 9-28-92 DATE RECEIVED 9-29-92

	Sample #	PCB	Aroclor	PERCENT TOTAL SOLIDS
A-01	Q6207	<0.6	-	86.
B-01	Q6208	100.	1260	84.
C-01	Q6209	1.8	1260	90.
C-02	Q6210	19.	1260	82.
D-01	Q6211	<0.6	-	90.
D-02	Q6212	<0.6	-	83.
E-01	Q6213	<0.5	-	92.
E-02	Q6214	<0.6	-	86.
F-01	Q6215	<0.6	-	88.
F-02	Q6216	<0.6	-	84.
G-01	Q6217	<0.5	-	93.
G-02	Q6218	<0.6	-	84.

Comments:

Certification No.: 10155

Units: mg/kg dry weight

Authorized: Monika Santucci

Date: October 12, 1992



LABORATORIES, INC.

ATTACHMENT B

Laboratory Report

CLIENT CORNING, INC. JOB NO. 1403.092.517

DESCRIPTION Fulton Street Site, Corning, NY

MATRIX: Solid

PCB Analyzed 3-15-93 DATE COLLECTED 3-2-93 DATE RECEIVED 3-3-93

	Sample #	PCB	Aroclor	PERCENT TOTAL SOLIDS
SS1-A	R6110	29.	1260	81.
SS1-B	R6111	<0.6	-	83.
SS1-C	R6112	1.0	1260	80.
SS1-D	R6113	<0.6	-	78.
SS1-E	R6114	<0.5	-	94.

Comments:

Certification No.: 10155

Units: mg/kg dry weight

Authorized: Monika Santhuri

Date: March 18, 1993

APPENDIX B
COMPLETED PRELIMINARY REVIEW CHECKLIST

PRELIMINARY RCRA FACILITY ASSESSMENT

PRELIMINARY REVIEW CHECKLIST

WORK ASSIGNMENT NO. R02040

KEY

P PROVIDED
NP NOT PROVIDED
A ACCEPTABLE
NA NOT ACCEPTABLE
Y YES
N NO
OR OBSERVED RELEASE (DIRECT EVIDENCE)
SR SUSPECTED RELEASE (INDIRECT EVIDENCE)
PoR POTENTIAL RELEASE (POSSIBLE FOR A RELEASE TO OCCUR)
NR NO RELEASE HAS OCCURRED (DIRECT EVIDENCE)
SWMU SOLID WASTE MANAGEMENT UNIT
AOC AREA OF CONCERN

RFA COMPONENT 1: PRELIMINARY REVIEW (PR)

A. General Manufacturing process description: ☐ P ☒ NP ☐ A ☐ NA

Comments: _____

B. General Facility waste generation description: ☐ P ☐ NP ☒ A ☐ NA

Comments: Discusses what wastes are generated, but doesn't
discuss the source.

C. Environmental/hydrogeologic setting description: ☐ P ☒ NP ☐ A ☐ NA

Comments: EPA Checklist contains minimal info

D. SWMU identification list: ☒ P ☐ NP ☐ A ☐ NA

Comments: _____

E. Was the SWMU subset of RCRA regulated units denoted? ☐ Y ☐ N ☐ A ☐ NA

Comments: _____

F. Were other AOC's (e.g. spills, leaks) listed? ☐ Y ☒ N ☐ A ☐ NA

Comments: _____

G. Were potential off-site exposure pathways identified? (e.g. drinking water wells, irrigated farmland, swamps) ☐ Y ☒ N ☐ A ☐ NA

Comments: _____

H. Detailed SWMU or AOC information:

SWMU # 1 or AOC Drum Storage Pad

1. Is the unit located on a facility map? ☒ Y ☐ N ☐ A ☐ NA

Comments: _____

2. Unit characteristics (e.g. design, liners, age, construction):
☒ Y ☐ N ☐ A ☐ NA

Comments: Paired and diked. The drums are placed on wooden pallets.

3. Waste characteristics (e.g. types, volumes, classification):
☒ Y ☐ N ☐ A ☐ NA

Comments: glass fine, carbonium, aluminum oxide, peroxide and cerium oxide, Corros! 21 drums in storage during CAPT's 10/15 inspection.

4. Waste migration pathways:

a. Air: ☐ CR ☐ SR ☐ PoR ☒ NR

i. Is documentation provided? ☐ Y ☐ N

ii. Does the documentation provide acceptable support for the determination (CR, SR, PoR, NR)? ☐ Y ☐ N

Comments: _____

b. Soil: ☒ CR ☐ SR ☐ PoR ☐ NR

i. Is documentation provided? ☒ Y ☐ N

ii. Does the documentation provide acceptable support for the determination (CR, SR, PoR, NR)? ☒ Y ☐ N

Comments: Partial closure analytical data lead to remedial work removing the pad and soil beneath it.

c. Ground water: ☐ CR ☐ SR ☒ PoR ☐ NR

i. Is documentation provided? ☒ Y ☐ N

ii. Does the documentation provide acceptable support for the determination (CR, SR, PoR, NR)? ☐ Y ☒ N

Comments: Environmental setting information is not provided to determine this.

d. Surface water: ☐ CR ☐ SR ☐ PoR ☒ NR

i. Is documentation provided? ☐ Y ☐ N

ii. Does the documentation provide acceptable support for the determination (CR, SR, PoR, NR)? ☐ Y ☐ N

Comments: _____

e. Subsurface gas: ☐ CR ☐ SR ☐ PoR ☒ NR

i. Is documentation provided? ☐ Y ☐ N

ii. Does the documentation provide acceptable support for the determination (CR, SR, PoR, NR)? ☐ Y ☐ N

Comments: _____

5. Conclusions/Recommendations:

a. ☐ No conclusion or recommendation provided.

☐ Recommend no further action.

☐ Recommend a sampling visit.

i. Was sampling performed as part of this RFA? ☐ Y ☐ N

ii. Will the sampling be conducted in a RFI? ☐ Y ☐ N

☐ Recommend interim measures.

☐ Recommend a RFI.

Comments: Recommend a site visit possibly. See
Comments below

b. Is the recommendation acceptable? ☒ Y ☐ N

Comments: _____

Refer to Partial Closure Certification:

after the first stage of soil removal 5,100 ppm of lead was detected at the low end of the pad in the soil. Needed more removal

after the second stage of soil removal, 550 ppm was detected, and noted as still unsatisfactory. However, they did a TCLP test yielding a result of 1.4 ppm (within the standard), and concluded no further action was necessary.

Concerns: ^{conditions}
① No mention of local environmental groundwater, etc.
② No mention as to the location of either of the 2 samples.
③ 550 ppm was measured, and is justification for more work

I. Did the PR identify any data gaps? ☒ Y ☐ N ☐ A ☐ NA

a. If "Y", list the data gaps: local environmental setting,
no mention of PCB's in the closure discussion - 2.0
level was detected, ~~no~~ process description

Comments: _____

J. Other comments on the PR: levels of PCB's and lead detected
and present after closure certification is of concern.
May warrant a site visit. More information is
needed on the environmental setting to evaluate
the potential for lead migration to other sources.

RFA Component 2: Visual Site Inspection (VSI)

A. General description of VSI activities: ☒ P ☐ NP ☒ A ☐ NA

Comments: TRC inspected the grounds and all structures located on the property of Corning Inc.'s Steuben Plant and Fulton Street storage facility

B. Site safety plan including the monitoring of vapor emissions (respirators, chemically resistant clothing, etc.): ☒ P ☐ NP ☐ A ☐ NA

Comments: _____

C. Facility inspection:

1. Was each SWMU noted in the PR examined? ☒ Y ☐ N

Comments: Only one SWMU was identified in the PR.

2. Was each AOC noted in the PR examined? ☒ Y ☐ N

Comments: Only one SWMU was identified in the PR

3. Was the entire facility traversed in order to identify additional AOCs identify additional SWMUs, complete data gaps from the PR, etc.? ☒ Y ☐ N ☐ A ☐ NA

Comments: The entire site was traversed

a. Were additional SWMUs and/or AOCs noted? ☒ Y ☐ N

Comments: Several additional AOCs were identified during the VSI.

4. Did the VSI include an inspection beyond the facility boundary? ☐ Y ☒ N

Comments: _____

5. SNU # 1 or AOC Former Drum Storage Area

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☐ P ☒ NP ☐ A ☐ NA

Comments: Former drum storage area was paved
with a dike - was excavated in 1990 and backfilled
with gravel.

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☒ Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: No photographs were taken during the VSI.

5. SNU # 2 or AOC Roll-off containing lead waste

a. Documentation of field observations in logbook: / P NP A NA

i. Visual evidence of unit characteristics (integrity, location):
/ P NP A NA

Comments: Located adjacent to the former
drum storage pad.

ii. Visual evidence of waste characteristics (e.g. labels):
/ P NP Not applicable

Comments: Label indicated D008 waste

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): P / NP

Comments: Solid waste roll-off covered and
in good condition

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): P / NP Not applicable

Comments: TRC did not observe stained soil
or stressed vegetation.

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): P / NP Not applicable

Comments: TRC did not observe the presence
of nearby receptors.

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? Y / N

Comments: _____

5. SITU # 3 or AOC Drum accumulation area on loading dock

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Drums containing solid waste - accumulated on loading dock - surrounded with spill booms

ii. Visual evidence of waste characteristics (e.g. labels):
☒ P ☐ NP ☐ Not applicable

Comments: Waste labeled D008

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SITU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SIU # 4 or AOC Floor drains - Fulton St. Facility

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Contact water drains to trenches in floor where
solids settle out. Water goes to filtration
unit.

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☒ Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SIU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SIU # 5 or AOC Waste water filtration unit.

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Fulton St. W/W Filtration Unit accepts
contact water from floor drains

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☒ Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☐ NP ☒ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, crinkly water wells): ☒ P ☐ NP ☐ Not applicable

Comments: Effluent from filtration unit discharged
to town sewer. Effluent contains some lead.

b. Documentation of SIU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SIU: b or AOC Gasoline Storage AST

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Gasoline storage tank in Fulton St. yard -
covered w/ roof and in good condition.

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☒ Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SIU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SNU # 1 or AOC Drywell.

a. Documentation of field observations in logbook: P NP A NA

i. Visual evidence of unit characteristics (integrity, location):
P NP A NA

Comments: Drywell not noted in PR, therefore not
observed during VSI. SPDES permit regulates
discharge of non-contact cooling water

ii. Visual evidence of waste characteristics (e.g. labels):
P NP Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): P NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): P NP Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): P NP Not applicable

Comments: Although not observed, ~~high~~ potential
for ground water contamination

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? Y N

Comments: _____

5. SSIU # 8 of AOC Bag house dust collector

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Bag house dust collector constructed
in 1991 - located in Steven's Plant yard -

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☐ Not applicable

Comments: Bags for collecting dust were installed
and labeled.

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SSIU / AOC characteristics and potential migration pathways by photography? ☒ Y ☐ N

Comments: _____

5. SNU # 9 or AOC Solid Waste Hopper.

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Red hopper adjacent to baghouse dust collector for temporary accumulation (< 2 week) of baghouse dust and sweepings.

ii. Visual evidence of waste characteristics (e.g. labels):
☒ P ☐ NP ☐ Not applicable

Comments: Labeled D008

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, unkrinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SNU # 10 or AOC Drum accumulation area.

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Area in Steuben Plant yard designated for
temporary accumulation of drums (60 days).
Area is paved out not diked.

ii. Visual evidence of waste characteristics (e.g. labels):
☒ P ☐ NP ☐ Not applicable

Comments: Drums labeled D008

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☐ NP ☒ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SNU # 11 or AOC Steuben Plant floor drains

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Contact waste water drains to trenches
in floor where solids settle out. Water goes
directly to town sewer - water may be contaminated
with lead - no testing.

ii. Visual evidence of waste characteristics (e.g. labels):
☐ P ☐ NP ☒ Not applicable

Comments: _____

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☒ P ☐ NP

Comments: Waste water flows to town sewer.

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☐ NP ☒ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, drinking water wells): ☒ P ☐ NP ☐ Not applicable

Comments: potential for exposure because
waste water flows to town sewer.

b. Documentation of SNU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

5. SSIU # 12 or AOC Satellite accumulation areas.

a. Documentation of field observations in logbook: ☒ P ☐ NP ☐ A ☐ NA

i. Visual evidence of unit characteristics (integrity, location):
☒ P ☐ NP ☐ A ☐ NA

Comments: Drums containing solid waste accumulated
in Spoken Plant and Fulton St. Facility -

ii. Visual evidence of waste characteristics (e.g. labels):
☒ P ☐ NP ☐ Not applicable

Comments: Labels indicate DCOB waste.

iii. Visual evidence of pollutant migration pathways (e.g. erosion, run-off): ☐ P ☒ NP

Comments: _____

iv. Visual evidence of release (e.g. discolored soils, dead vegetation): ☐ P ☒ NP ☐ Not applicable

Comments: _____

v. Visual evidence of exposure potential (e.g. swamp, uninking water wells): ☐ P ☒ NP ☐ Not applicable

Comments: _____

b. Documentation of SSIU / AOC characteristics and potential migration pathways by photography? ☐ Y ☒ N

Comments: _____

- Comments:**

D. Other comments on the VSI:

RFA REVIEW SUMMARY

A. List all SWMUs identified (inclusive of the PR and VSI):

# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____

B. List SWMUs known by reviewer but not included in the RFA:

# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____
# _____	# _____

C. List AOCs identified in the RFA:

D. List ACCs known by reviewer but not included in the RFA:

[illegible]

E. List SWMUs / AOCs which must be reevaluated due to inaccuracies in the PR, VSI, or SV:

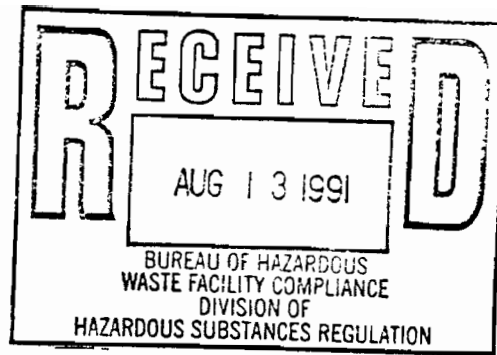
[illegible]

J. Does the RFA summary report integrate the findings of the PR, VSI, and SV? Y

Comments: _____

K. Any additional / miscellaneous comments on the RFA: _____

APPENDIX C
CLOSURE DOCUMENTS



CORNING

August 7, 1991

Mr. Stephen Malsan
Regional Permit Section
Bureau of Hazardous Waste Facility Compliance
Division of Hazardous Substance Regulation
NY State Dept. of Envir. Conservation
50 Wolf Rd.
Albany, NY 12233

Dear Mr. Malsan:

RE: Corning Incorporated - Big Flats, NYD 013666821
 " " - Erwin Ceramics, NYD000824433
 " " - Erwin Electronics, NYD000824367
 " " - Fall Brook, NYD000824425
 " " - Pressware, NYD000824409
 " " - Steuben, NYD000824359

Enclosed you will find the RCRA Closure Certification documents for the abovereferenced facilities.

Each of these facilities has been closed in accordance with the corresponding closure plan. All closure work was completed prior to December 31, 1990 as required by the DEC. The enclosed closure certifications indicate that each of the referenced Corning Incorporated facilities has undergone a clean closure and should be reclassified from TSDF's to generators, which would waive the TSDF fee for 1991.

If you have any questions, feel free to call me at (607) 974-6399.

Sincerely,

Karen S. Gross
Sr. Environmental Control Engineer

cc: w/enc: D. Rollins, NYS DEC Region 8
 S. Kaszcynec, K. Hertlein, J. Palladino,
 K. Konopski, J. Trencasky, P. Lees
 file

w/o enc: A.J. Gallo
 J. Sprague, Sear-Brown

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APPENDICES

APPENDIX A	APPROVED CLOSURE PLAN
APPENDIX B	ANALYTICAL RESULTS
APPENDIX C	ADDITIONAL SOIL REMOVAL PHOTOGRAPHS

TABLES

TABLE 1	CONFIRMATORY SAMPLING, ANALYTICAL RESULTS
TABLE 2	DISPOSAL RELATED SAMPLING, ANALYTICAL METHODS AND RESULTS

Certification Statement

We, The Sear-Brown Group and Corning Incorporated, do hereby certify that the hazardous waste management units located at Corning Incorporated's Steuben facility and identified in the attached partial closure certification document have been closed in accordance with the specifications in the approved closure plan addressing these units, except where specifically noted.

John W. Hayden
The Sear-Brown Group
John W. Hayden, P.E., Ph.D.
Vice President
Civil and Environmental Divisions



6-20-91
date

Karen S. Gross
Corning Incorporated
Karen S. Gross
Sr. Environmental Control Engineer

7 Aug 91
date

1.0 INTRODUCTION

In November 1980, Corning Incorporated (Corning) submitted a Part A application to the New York State Department of Environmental Conservation (NYSDEC) for its Steuben facility, EPA ID number NYD000824359. Corning's intention at that time was to classify the Steuben facility as a treatment, storage and disposal facility (TSDF) for hazardous waste under New York State regulation 6 NYCRR 373-1. The NYSDEC granted Corning Interim Status for this facility in response to this application.

Under this interim status designation Corning installed and maintained a hazardous waste drum storage pad at the facility. Some non-hazardous waste materials were also stored on this drum storage pad. By 1984, Corning had ascertained that the TSDF designation was not needed and therefore began the process of reclassifying the facility as a generator only. This reclassification required Corning to submit to the NYSDEC a formal closure plan. In order to reclassify the facility as a generator only, the NYSDEC required that the closure plan be successfully implemented.

The required closure plan was submitted to the NYSDEC for review and comment. A revised version of the plan which reflected the NYSDEC comments was submitted in September 1984. This plan was then updated in November 1984 and October 1990. Formal approval of the plan was received in October, 1990. A copy of the approved plan is presented in Appendix A. The plan was implemented in December 1990.

Allwash of Syracuse, Inc. (Allwash) was selected as the decontamination contractor. Wenzel, Inc. was employed as an excavation subcontractor to provide excavation and backfill equipment, operators and materials. Upstate Laboratories, Inc. (Upstate) was selected to provide all sampling and analytical services. The Sear-Brown Group (Sear-Brown) was selected as the independent engineer to document the closure and provide the closure certification document.

2.0 DRUM STORAGE PAD REMOVAL

The approved closure plan required the contractor to provide their workers with appropriate safety clothing and devices during the decontamination. For the soil removal work carried out at Steuben, the workers performing the soil removal by hand were outfitted with rubber boots, rubber gloves, tyvex suits and half face respirators with organic vapor cartridges. Before leaving a restricted entry work site, each worker would decontaminate their rubber boots and dispose of their rubber gloves, tyvex suits and respirator cartridges. The excavation equipment operators did not use any personal protective equipment.

The approved closure plan called for the removal of the drum storage pad and the soil beneath it. The depth of the excavation was identified in the closure plan as one ft. The actual excavation work was conducted on December 6, 1990, and conformed to the closure plan. The removed material, asphalt and soil, was placed in roll-off containers suitable for hauling hazardous waste and staged at the Steuben facility.

No cleaning of the pad was conducted prior to its removal. The only cleaning conducted at this site was the decontamination of the excavating equipment following the removal. The volume of decontamination water generated by this cleaning was minor. Therefore, the decontamination was carried out over a roll-off filled with soil and the decontamination water was captured in the roll-off.

3.0 SAMPLE COLLECTION

3.1 Confirmatory Sampling

The approved closure plan required the collection of a total of three soil samples. Two were collected from the bottom of the excavation, located so as to be beneath areas of the pad that had been cracked. The third was collected in a low lying area adjacent to the pad that showed evidence of collecting the storm water overflow from the drum pad. These samples were collected on December 6, 1990, by Upstate.

The approved closure plan stated that if the analytical results received from the confirmatory soil samples exceeded action levels to be provided by the NYSDEC, then the results would be compared to the background soil levels in the area. To provide this comparison, a background soil sample was collected at the same time as the confirmatory soil samples. This sample was collected from immediately outside of the fence that delineates the southern boundary of Corning property in the vicinity of the Steuben drum pad.

3.2 Disposal Related Sampling

The three roll-off containers of soil and asphalt debris generated from the removal of the drum storage pad were sampled by Corning on December 6, 1990, to determine proper disposal.

4.0 ANALYSIS AND RESULTS

4.1 Confirmatory Sampling Analysis

The approved closure plan required the confirmatory soil samples and the background sample to be analyzed for lead using method SW846 - 7421. The analyses were conducted by Upstate, and the following results were obtained.

TABLE 1
CONFIRMATORY SAMPLING
ANALYTICAL RESULTS

Sample #/Location	Results
A, at low lying area	5,100 ppm
B, beneath crack in pad	87 ppm
C, beneath crack in pad	41 ppm
Background, outside facility fencing.	92 ppm

All original laboratory results are presented in Appendix B of this report. The results are discussed in sections 5.0 and 6.0.

4.2 Disposal Related Analysis

In order to characterize the excavated soil and asphalt for disposal, one composite sample of the three roll-offs of the excavated soil and asphalt was analyzed for the following parameters using the method indicated. The analysis of the sample for characterization for disposal was conducted by Corning, and the following results were obtained.

TABLE 2
DISPOSAL RELATED SAMPLING
ANALYTICAL METHODS AND RESULTS

Parameter	Method	Results
Silver	TCLP	<0.1 mg/l
Arsenic	TCLP	<0.1 mg/l
Barium	TCLP	1.9 mg/l
Cadmium	TCLP	<0.1 mg/l
Chromium	TCLP	<0.1 mg/l
Lead	TCLP	19 mg/l
Selenium	TCLP	<0.1 mg/l
Mercury	EPA 7470	<0.0002 mg/l
PCB's	SW846-8080	202 ppm
Corrosivity	EPA 1110	Non-corrosive
Ignitability	SW 846	Non-ignitability
Reactivity	SW 846	Non-reactive

All original laboratory results are presented in Appendix B of this report.

5.0 DISCUSSION OF ANALYTICAL RESULTS

All of the confirmatory soil samples collected contained quantifiable amounts of lead. The samples collected from the excavation had amounts of lead that were below the level identified in the soil background sample. Therefore, the lead level in the soil in the excavation was not elevated as a result of the storage of hazardous waste. Corning personnel judged that no further action was necessary.

The soil sample collected from the low lying location where storm water overflow from the pad ponded showed a total lead concentration of 5,100 ppm. Since this result exceeded the background sample level of 92 ppm, the NYSDEC and Corning agreed that a spot excavation of this hot spot was necessary. The spot excavation is described in Section 6.0 of this report.

6.0 ADDITIONAL SOIL REMOVAL

In response to the high level of lead found at the storm water ponding location, additional soil was removed. To prevent this "hot spot" soil from contaminating the previously filled roll-offs, it was placed in six lined USDOT 17H drums. An area approximately three ft. wide by six ft. long was designated for excavation to a depth of one ft., which would have been a volume of approximately 18 cu. ft. The actual area excavated was larger and/or deeper, as a volume of approximately 40 cu. ft. of soil was removed.

The excavation was conducted by hand by a two man crew. The workmen wore tyvex suits, rubber boots, rubber gloves and half face respirators with organic vapor cartridges. At the completion of the work the gloves, respirator cartridges and tyvex suits were placed in the last soil drum. Some plastic sheeting used for housekeeping purposes during the excavation was also discarded in this drum. The rubber boots were decontaminated and retained for future use, as were the hand tools. This generated a small quantity of decontamination water, which was distributed among the six drums of soil. This work was accomplished on December 19, 1990. Photographs of the completed excavation are included in Appendix C.

Following the soil removal a confirmatory sample was collected. This sample was taken from the center of the newly excavated area, at the surface of the bottom of the excavation. This sample was analyzed for the same parameters and by the same methods as the previously collected confirmatory soil samples. The sample was collected on December 19, 1990, by Upstate, and delivered to their laboratory for analysis.

The analysis showed this sample to contain total lead at a concentration of 550 ppm. This is below that of the previously collected sample from this location, but still above the background level identified.

To obtain a clearer indication of the actual hazard that the soil with this lead content actually posed to the environment, the NYSDEC instructed Corning to re-analyze the sample for lead by the Toxicity Characteristic Leaching Procedure (TCLP). The NYSDEC stated that TCLP analytical results below the USEPA action level of 5 ppm would be considered evidence that no further soil removal was necessary. The TCLP result was 1.4 ppm, therefore, no further soil removal was pursued.

7.0 SITE RESTORATION

The original excavation was backfilled by the excavation contractor on December 19, 1990. Clean fill was imported for this purpose. Additional fill was left on site on December 19, 1990, so that the area of additional soil excavation could be backfilled after acceptable analytical results were received. This area was backfilled by Corning personnel after receiving acceptable analytical results.

8.0 WASTE DISPOSAL

The three roll-offs filled with soil from the original excavation were classified as non-hazardous and disposed of at an industrial landfill. The drummed soil was classified as hazardous and disposed of at an off-site facility through a new hazardous waste profile.

APPENDIX A
APPROVED CLOSURE PLAN

CORNING INCORPORATED
CORNING, N.Y.
HAZARDOUS WASTE STORAGE AREA CLOSURE PLAN
STEUBEN
EPA I.D. NUMBER NYD000824359

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SECTION

- 1.0 General Closure Plan
- 2.0 Hazardous Waste Drum Storage Pad

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- Figure 1.1 Location of Hazardous Waste Drum Storage Pad
- Figure 1.2 Closure Schedule

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- Table 2.1 Hazardous Wastes Stored in Drum Storage Pad
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- Table 2.3 Hazardous Waste Transporters and TSDFs
- Table 2.4 Analytical Methods

APPENDICES

- Appendix A Closure Cost Estimate

CORNING INCORPORATED

STEUBEN - EPA I.D. NUMBER NYD000824359

CORNING, N.Y.

6 NYCRR 373.3 CLOSURE PLAN

REVISED PLAN SEPTEMBER 1984

UPDATED NOVEMBER 1984

UPDATED OCTOBER 1990

- - - - -

ENVIRONMENTAL CONTROL COORDINATOR

Karen S. Gross
Corning Incorporated
HP-ME-01-025-A10
Corning, N.Y. 14831
607-974-6399

PLANT REPRESENTATIVE

Tim Scouten
Corning Incorporated
Steuben Plant
HP-ST-01-1
Corning, N.Y. 14831
607-974-8530

CORNING INCORPORATED
CORNING, N.Y.
HAZARDOUS WASTE STORAGE AREA CLOSURE PLAN
STEUBEN-EPA I.D. NUMBER NYD000824359

1.0 GENERAL

The purpose of this document is to establish a plan, in accordance with the provisions of 6 NYCRR sub-part 373-3.7, to fulfill final closure of the Hazardous Waste Storage Area located at the Steuben facility of Corning Incorporated in Corning, N.Y. This closure plan is intended for the elimination of interim status, and thereafter, allowing this facility to be only a generator.

The location of the hazardous waste drum storage pad is shown in Figure 1.1.

In its scope, this plan includes only the hazardous waste drum storage pad located at this site.

This plan is designed such that specific information regarding the closure of this area is presented in detail in Section 2. The more generic closure information is presented as part of the basic plan discussed in this section.

The Sear-Brown Group, Inc. of Rochester, N.Y. has been retained by Corning Incorporated to provide the independent professional engineer Closure Certification.

1.1 CLOSURE PERFORMANCE STANDARD

This closure plan is designed to ensure that the Hazardous Waste Storage Area located at this site will be closed in a manner that:

- (1) minimizes the need for further maintenance; and
- (2) controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface water or to the atmosphere.

Post closure activities are not required.

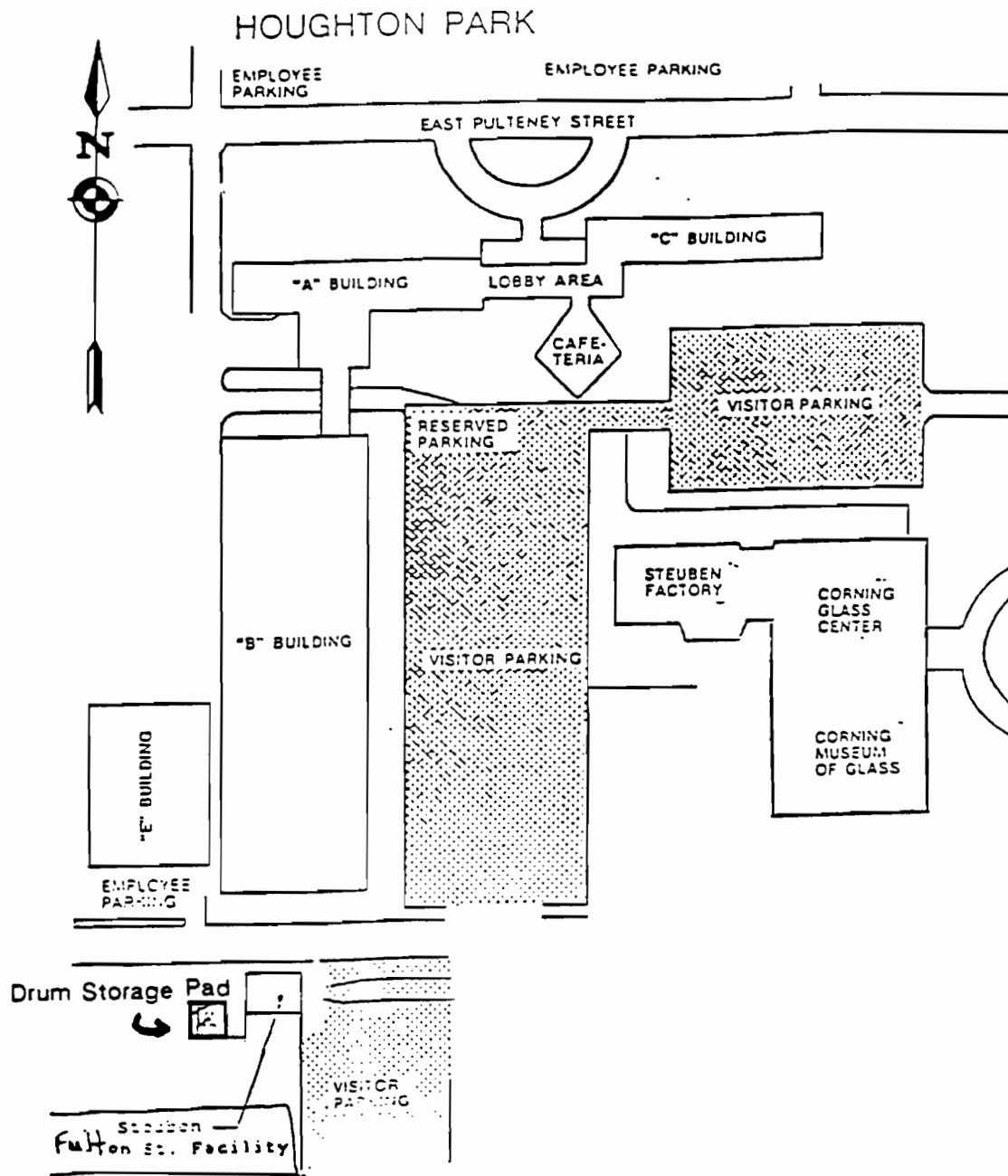


FIGURE 1.1

STEUBEN PLANT
Town of Corning, Steuben County, New York

LOCATION OF HAZARDOUS WASTE DRUM STORAGE PAD

not to scale

**THE
SEAR-BROWN
GROUP**
FULL-SERVICE
DESIGN PROFESSIONALS
85 METRO PARK
ROCHESTER, NEW YORK
14621
716-475-1440
FAX: 716-272-1814

Sampling procedures and laboratory analysis will be consistent with methods outlined in appropriate NYSDEC and EPA documents.

The pad and approximately eight inches of soil underneath it will be excavated and staged for disposal. Following outlined procedures, appropriate samples will be taken to confirm the level of contamination, if any, which may remain in the area.

1.2 FINAL CLOSURE ACTIVITIES

Corning Incorporated expects to perform final closure activities on the hazardous waste drum storage pad by the end of 1990. The closure schedule is presented in Figure 1.2. The procedures for final closure of the hazardous waste drum storage pad located at this facility, including waste removal, pad and soil removal and decontamination activities are described in detail in Section 2 of this document.

1.3 SAFETY AND HYGIENE

The successful bidding Contractor will assure that workers who are engaged in activities associated with the closure of the hazardous waste drum storage pad on this site are provided with proper safety clothing and devices, training, hygiene facilities and work environment so as to minimize their exposure to the hazards associated with the work.

1.4 WORK AREA PREPARATION

The successful bidding Contractor will insure that:

- Prior to any activity in the planned work area, proper signs will be displayed at all entrances or routes of access to the work area.
- The work area shall be isolated for the duration of the cleanup by the placement of appropriate fencing, signs, tape or locks.
- No one will be allowed inside the work area without proper protective clothing and, if conditions warrant, a respirator.

1.5 FINAL CLEANUP OF THE WORK AREA

When hazardous waste has been removed from the isolated area, the pad and underlying/adjoining soils will be removed. Equipment, machinery, scaffolding, tools, etc. within the isolated work area shall not be removed without first being cleaned.

Excavation is to be continued until sample analysis indicates that the area is below acceptable levels. If test results exceed the action level, excavation and testing shall be repeated until test results are below acceptable levels.

Construction of a new hazardous waste drum accumulation area for the accumulation of hazardous waste for a period not to exceed 90 days will commence after:

- (1) receipt of a favorable lab report; and
- (2) a favorable inspection of the former pad area by a NYSDEC representative.

1.6 DISPOSAL OF HAZARDOUS WASTE/MATERIAL

All waste generated within the isolated work area including drums, plastic sheeting, tape, cleaning materials, protective clothing, brushes, pails, brooms, and all other disposable material or items used on the work area shall be packed, sealed and disposed of according to proper procedures.

Collected items are to be placed in an appropriate container and sealed. Waste containers are to be properly labeled and properly handled at satellite accumulation areas until shipment to a hazardous waste disposal site. Hazardous waste disposal accumulation time will be less than 90 days.

Wastewater generated during the cleaning of the equipment will be stored in drums and tested to determine if the wastewater is hazardous. If the wastewater is hazardous, it will be transported off-site to an appropriate TSDF. If the wastewater is nonhazardous, it will be disposed of as industrial wastewater.

1.7 CLOSURE COST ESTIMATE

The closure cost estimate may be found in Appendix A.

CORNING GLASS WORKS
CORNING, N.Y.
HAZARDOUS WASTE STORAGE AREA CLOSURE PLAN
STEUBEN-EPA I.D. NUMBER NYD000824359

2.0 HAZARDOUS WASTE DRUM STORAGE PAD

2.1 GENERAL

This portion of the closure plan covers only that area associated with the storage of hazardous waste in containers on the hazardous waste drum storage pad at Steuben. It does not affect other waste generating operations covered by EPA permit NYD000824359.

Corning Incorporated expects to begin implementation of this section of the closure plan in November 1990.

This section identifies the steps that are required to close this hazardous waste drum storage pad. A post closure plan is not required since all wastes will be removed prior to, or at the time of, closure.

Corning will submit, to the NYSDEC, certification that the hazardous waste storage area has been closed in accordance with the approved plan. This certification will be signed by an independent professional engineer registered in N.Y.

The maximum inventory of waste at any given time during the operating life of this area was (90) 55-gallon drums, in addition to other smaller miscellaneous containers. The waste was never stored any higher than two drums. All hazardous waste in storage on this pad will have been removed from this area to an approved disposal site prior to closure.

The pad is constructed of asphalt. There is an asphalt dike approximately six inches high around the perimeter of the pad. The integrity of the pad has been reduced by several cracks and a hole approximately two inches in diameter.

This pad has been used for the storage of nonhazardous waste oil in drums in addition to hazardous waste drum storage. There are several oil stains visible on the pad.

The pad is not equipped with a drainage system to dispose of stormwater. Stormwater collects in the lowest corner of the pad and it appears that stormwater overflows the pad after a heavy storm. There is bare soil adjacent to the pad where overflow stormwater would collect.

The area adjacent to two sides of the pad is asphalt covered. A third side is grass covered and the fourth side is a chain link fence. The property on the other side of the chain link fence is gravel surfaced and belongs to NYSEG. The NYSEG property is upgradient of the pad with respect to surface water drainage patterns.

The hazardous wastes that have been stored on the drum storage pad are listed in Table 2.1.

The estimated final inventory of hazardous waste to be removed from the pad is presented in Table 2.2.

The hazardous wastes in the final inventory will be transported by a licensed hazardous waste transporter, to one or more of the TSDFs listed in Table 2.3, who have disposed of previously accumulated waste from this area.

TABLE 2.1

HAZARDOUS WASTES STORED ON DRUM STORAGE PAD

STEUBEN PLANT

Proper Shipping Name	UN/NA #	EPA #	Description	Hazard Class
Hazardous Waste Solid N.O.S.	NA9189	D008	Grinding and polishing waste (sludge) consisting of glass fines, carborundum aluminum oxide, pumice cerium oxide and lead.	ORM-E
Hazardous Waste Solid N.O.S.	NA9189	D008	Cullet and batch materials from vacuuming floors and equipment in melting operation.	ORM-E

TABLE 2.2

DRUM STORAGE PAD FINAL HAZARDOUS WASTE INVENTORYSTEUBEN PLANT

Waste	EPA #	Quantity
Sludge	D008	8 to 12 drums
Cullet & batch materials	D008	1 to 3 drums

TABLE 2.3

HAZARDOUS WASTE TRANSPORTERS AND TSDFsSTEUBEN PLANT

Transporters:	EPA I.D. #
Hazmat Environmental Group, Inc.	NYD980769947
Frank's Vacuum Truck Service	NYD982792814
TSDFs:	
CECOS, International Pine Ave & 56th Street Niagara Falls, N.Y. 14304	NYD080336241
Chemwaste Management of New Jersey, Inc. 100 Lister Ave. Newark, N.J. 07105	NJD089216790
Michigan Disposal, Inc. 49350 North I-94 Service Drive Belleville, MI 48111	MID000724831
CWM Chemical Services, Inc. 1550 Balmer Road Model City, N.Y. 14107	NYD049836679

2.2 PAD REMOVAL

The work will be conducted using either a qualified outside environmental contractor, or properly trained Corning personnel, and supervised by the independent engineer.

The hazardous waste drum storage pad and a layer of soil under it will be excavated and staged in a lined roll-off container or containers approved for hazardous waste. The layer of asphalt and soil removed will be approximately one ft. thick.

The excavating equipment will be decontaminated after the pad and soil decontamination. All water/residue generated during cleaning will be collected in approved containers and analyzed.

If laboratory analysis indicates that the wastewater is hazardous, it will be properly packaged, labeled and shipped to an approved disposal site. If the wastewater is nonhazardous, it will be disposed of as industrial wastewater.

All other waste generated within the isolated work area including drums, plastic sheeting, tape, cleaning materials, protective clothing, brushes, pails, brooms, and all other disposable material or items used on the work area shall be packed, sealed and disposed of according to proper procedures.

Collected items are to be placed in an appropriate container and sealed. Waste containers are to be properly labeled and properly handled at satellite accumulation areas until shipment to a hazardous waste disposal site. This accumulation time will be less than 90 days.

Following the initial clean-up, the testing described in Section 2.3 will be implemented. Should the testing results indicate that the minimum standards discussed in Section 2.3 are not met, then further soil removal, as necessary, will be undertaken and the appropriate testing will be repeated. This procedure will continue until the standards discussed in Section 2.3 are met.

2.3 TESTING

Following the removal of the drum storage pad, the collected equipment decontamination water will be tested to determine if it is a RCRA hazardous waste. The hazardous waste standard listed in 40 CFR 261 will be the action level. The analysis of the decontamination water will be utilized for determining the proper disposal of the decontamination water.

The asphalt and soil staged in the roll-off container(s) will be sampled for disposal. The action level will be the hazardous waste standard listed in 40 CFR 261.

If the sample analysis exceeds the action level, then the pad and soil will be disposed of as hazardous waste. If the sample analysis is below the action level, then the pad and soil will be disposed of as nonhazardous waste.

2.4 SOIL SAMPLES

Three (3) soil samples will be collected. Two (2) soil samples will be collected from locations which were below areas of reduced integrity on the former pad. One (1) soil sample will be collected in the low area where overflow of stormwater would collect adjacent to the pad. The samples will be collected from a depth of one to three inches below the excavated surface. These samples will be analyzed by the method listed in Table 2.4. The action level will be provided by the DEC in order to meet the closure standard.

Should the soil sample analysis exceed the action level provided by the DEC, the level found in the soil sample analysis will be compared to the background soil level in the area. The background level will be determined by analysis of a background soil sample collected an appropriate distance from the storage area.

If any sample analysis exceeds the action level provided by the DEC and the background level, then additional soil will be removed from the area where the sample was taken and placed in lined roll-off containers suitable for hazardous waste. The sampling will be repeated in the excavation and this process will continue until the soil sample analysis is below the action level.

TABLE 2.4
ANALYTICAL METHODS
STEUBEN PLANT

Analysis/Analyte	Method
Lead	SW846-7421

APPENDIX A

CORNING

August 3, 1990

Ms. Margaret E. O'Neil
Solid Waste Management Specialist
NYS Dept. of Environmental Conservation
Div. of Hazardous Substances Regulation
50 Wolf Road - Room 204
Albany, NY 12233-7253

RE: Corning Incorporated
Fall Brook Plant
Facility ID #NYD000824425

Dear Ms. O'Neil:

Subsequent to your letter dated July 17, 1990, and telephone conversation of August 1, 1990 with Joseph Kane regarding Corning's Fall Brook plant, I am attaching herewith an updated financial assurance statement which includes Fall Brook. Specifically, a closure cost estimate has been listed for Fall Brook on the facility summary sheet, and this estimate has been included on the Part B - Alternative I liability coverage sheet.

The Price Waterhouse analysis letters are being re-filed; please consider this submittal an amendment to my March 26, 1990 financial test letter.

Finally, be advised that Corning has communicated with Salvatore Carlomagno of DEC regarding RCRA interim status closure of storage areas at all New York plants, and their subsequent classification as generator-only facilities.

Very Truly Yours,



Richard B. Klein
Vice President & Treasurer

cc: Mr. J. F. Kane
Mr. P. K. Maier

CORNING INCORPORATED
TREATMENT OR STORAGE FACILITIES
MARCH, 1990
(AMENDED AUGUST, 1990)

CLOSURE COST ESTIMATES

<u>FACILITY</u>	<u>ID#</u>	<u>EPA REGION</u>	<u>ESTIMATED CLOSURE COST</u>
<u>New York</u>			
Big Flats, NY	NYD013666821	II	48,000
Erwin Ceramics, Corning, NY	NYD000824433	II	39,000
Erwin EMP, Corning, NY	NYD000824367	II	51,000
Pressware, Corning, NY	NYD000824409	II	23,000
Steuben, Corning, NY	NYD000824359	II	5,000
Fall Brook, Corning, NY	NYD000824425	II	31,000

West Virginia

Martinsburg, WV	WVD003074770	III	24,000
Paden City, WV	WVD016120461	III	55,000
Parkersburg, WV	WVD004386074	III	8,000

Kentucky

Harrodsburg, KY	KYD006388797	IV	170,000
TOTAL CLOSURE COSTS			454,000

POST CLOSURE COST ESTIMATES

Bluffton, IN	IND005557244	V	975,000
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TOTAL POST CLOSURE COSTS 975,000

TOTAL CLOSURE & POST CLOSURE COSTS 1,429,000

Part B. Closure or Post-Closure Care and Liability Coverage

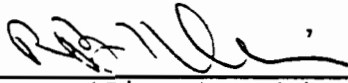
Alternative I

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).	\$ 1,429,000
2.	Amount of annual aggregate liability coverage to be demonstrated.	\$ 2,000,000
3.	Sum of lines 1 and 2	\$ 3,429,000
*4.	Total Liabilities (if any portion of your closure or post-closure cost estimate is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6).	\$1,617,900,000
*5.	Tangible net worth	\$1,506,400,000
*6.	Net Worth	\$1,711,200,000
*7.	Current assets	\$1,169,300,000
*8.	Current liabilities	\$ 682,000,000
9.	Net working capital (line 7 minus line 8).	\$ 487,300,000
*10.	The sum of net income plus depreciation, depletion and amortization.	\$ 432,300,000
*11.	Total assets in United States (required only if less than 90% of assets are located in the U.S).	\$2,253,000,000
12.	Is line 5 at least \$10 million?	Yes
13.	Is line 5 at least six (6) times line 3?	Yes
14.	Is line 9 at least six (6) times line 3?	Yes
*15.	Are at least ninety (90) percent of assets located in the United States. If not, complete line 16.	No

16. Is line 11 at least six (6) times line 3? Yes
17. Is line 4 divided by line 6 less than 2.0? Yes
18. Is line 10 divided by line 4 greater than 0.1? Yes
19. Is line 7 divided by line 8 greater than 1.5? Yes

* Derived from consolidated 1989 Financial Statements.

I hereby certify that the wording of this letter is identical to the wording specified in 6 NYCRR 373-2.8(j)(9) as such regulations were constituted on the date shown immediately below.


(Signature)

Vice President and Treasurer
(Title)

Richard B. Klein

August 3, 1990
(Date)

/jd

Price Waterhouse



March 27, 1990

Mr. Richard B. Klein
Vice President and Treasurer
Corning Incorporated
Houghton Park
Corning, New York 14831

Dear Mr. Klein:

We have performed the procedure described below with respect to the March 26, 1990 letter addressed to Ms. Margaret O'Neil of the New York State Department of Environmental Conservation signed by yourself (Exhibit A). The procedure was performed solely to assist Corning Incorporated (the Company) in complying with New York State Department of Environmental Conservation regulations 6NYCRR 373-2.8 and 373-3.8, and our report is not to be used for any other purpose. The procedure we performed is summarized as follows:

We compared the amounts in Exhibit A identified as having been derived from the Company's independently audited consolidated financial statements for the fiscal year ended December 31, 1989 with information contained in the Company's consolidated financial statements as of and for the year ended December 31, 1989 which we have audited and have issued our report thereon dated January 22, 1990.

Because the above procedure was not sufficient to constitute an audit made in accordance with generally accepted auditing standards, we do not express an opinion on any of the items contained in Exhibit A. However, in performing the procedure referred to above, no matters came to our attention that have caused us to believe that the amounts referred to above should be adjusted. Had we performed additional procedures or had we performed an audit of the information required to be submitted to the New York State Department of Environmental Conservation in accordance with generally accepted auditing standards, matters might have come to our attention that would have been reported to you. This report relates only to the amounts specified above and does not extend to any of the Company's consolidated financial statements, taken as a whole.

Yours very truly,

Price Waterhouse

Price Waterhouse



January 22, 1990

To the Directors and Stockholders
of Corning Incorporated

In our opinion, the accompanying consolidated financial statements, appearing on pages 21 through 23 and 30 through 43, present fairly, in all material respects, the financial position of Corning Incorporated and subsidiary companies at December 31, 1989, and January 1, 1989, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1989, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on the financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

We concur with the changes in accounting for post-employment medical benefits in 1988 and for certain manufacturing costs in 1987 as discussed in Note 3 to the consolidated financial statements.

Price Waterhouse

153 East 53rd Street
New York, New York 10022

APPENDIX B
ANALYTICAL RESULTS

DATE: 01/11/91

Upstate Laboratories, Inc.
Analysis Results
Port Number: 011191018
Client I.D.: ALLWASH OF SYRACUSE
Sampled by: ULI

APPROVAL: Q 38
QC: QAT
Lab I.D.: 10170

CORNING RCRA CLOSURE
BOTTLE CHECK WIPE SAMPLES 12/4/90 G

ULI I.D.: 34590057

Matrix: Wipe

PARAMETERS	RESULTS	DATE ANAL.	KEY
Corrosivity	5.8SU	12/11/90	
Total Arsenic by furnace method	<0.0001mg/wipe	12/20/90	
Total Barium	<0.03mg/wipe	12/20/90	
Total Cadmium	<0.0005mg/wipe	12/20/90	
Total Chromium by furnace method	0.0006mg/wipe	12/20/90	
Total Lead by furnace method	0.004mg/wipe	12/20/90	
Total Mercury	<0.0004mg/wipe	12/20/90	
Total Selenium by furnace method	<0.0001mg/wipe	12/20/90	
PCB			
Aroclor 1221	NA	12/13/90	
Aroclor 1016	NA	12/13/90	
Aroclor 1232	NA	12/13/90	
Aroclor 1242	NA	12/13/90	
Aroclor 1248	NA	12/13/90	
Aroclor 1254	NA	12/13/90	
Aroclor 1260	NA	12/13/90	
Total PCB	<0.1ug/wipe	12/13/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Port Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

CORNING RCRA CLOSURE

BOTTLE CHECK WATER SOURCE 12/4/90 G

ULI I.D.: 34590056

Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY
Total Arsenic by furnace method	<0.001mg/l	12/20/90	
Total Barium	<0.3mg/l	12/20/90	
Total Cadmium	<0.001mg/l	12/20/90	
Total Chromium by furnace method	<0.005mg/l	12/20/90	
Total Lead by furnace method	<0.001mg/l	12/20/90	
Total Mercury	<0.0004mg/l	12/20/90	
Total Selenium by furnace method	<0.001mg/l	12/20/90	
PCB			
Aroclor 1221	NA	12/13/90	
Aroclor 1016	NA	12/13/90	
Aroclor 1232	NA	12/13/90	
Aroclor 1242	NA	12/13/90	
Aroclor 1248	NA	12/13/90	
Aroclor 1254	NA	12/13/90	
Aroclor 1260	NA	12/13/90	
Total PCB	<0.1ug/l	12/13/90	

results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Port Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *BS*

QC: *FW*

Lab I.D.: 10170

CORNING RCRA CLOSURE

BOTTLE CHECK VOLATILE ORGANICS 12/4/90 G

ULI I.D.: 34590055

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

1,1,1-Trichloroethane

<1ug/l

12/16/90

Acetone

<1mg/l

11/17/90

Benzene

<1ug/l

12/16/90

Toluene

<1ug/l

12/16/90

Xylenes

<1ug/l

12/16/90

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.
Analysis Results
Port Number: 011191018
Client I.D.: ALLWASH OF SYRACUSE
Sampled by: ULI

APPROVAL: *QAD*
QC: *MF*
Lab I.D.: 10170

CORNING RCRA CLOSURE
BOTTLE CHECK SOIL, ASPHALT & CEMENT 12/4/90 G

ULI I.D.: 34590054

Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY
Corrosivity	7.4SU	12/11/90	
Flash Point	>60degC	12/13/90	
Total Arsenic by furnace method	<0.001mg/l	12/20/90	
Total Cadmium	0.001mg/l	12/20/90	
Total Chromium by furnace method	<0.005mg/l	12/20/90	
Total Lead by furnace method	<0.001mg/l	12/20/90	
PCB			
Aroclor 1221	NA	12/13/90	
Aroclor 1016	NA	12/13/90	
Aroclor 1232	NA	12/13/90	
Aroclor 1242	NA	12/13/90	
Aroclor 1248	NA	12/13/90	
Aroclor 1254	NA	12/13/90	
Aroclor 1260	NA	12/13/90	
Total PCB	<1.0ug/l	12/13/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *QJH*

QC: *ME*

Lab I.D.: 10170

CORNING RCRA CLOSURE

EQUIPMENT BLANK 12/6/90 G

ULI I.D.: 34190066

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

Total Lead by furnace method

<0.001mg/l

12/14/90

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *QJF*
QC: *MF*
Lab I.D.: 10170

CORNING RCRA CLOSURE
ULI TRIP BLANK 12/6/90

ULI I.D.: 34190067

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

1,1,1-Trichloroethane

<1ug/l

12/14/90

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *ass*

QC: *PF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEUBEN A-DRUM PAD 12/6/90 1635H G

ULI I.D.: 34090151

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY
Total Lead by furnace method	5100mg/kg	12/14/90	19
Total Solids	83%	12/10/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *AS*

QC: *HF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEUBEN B-DRUM PAD 12/6/90 1640H G

ULI I.D.: 34090152

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY
Total Lead by furnace method	87mg/kg	12/14/90	19
Total Solids	86%	12/10/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *AS*

QC: *MF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEUBEN C-DRUM PAD 12/6/90 1650H G

ULI I.D.: 34090153

Matrix: Soil

PARAMETERS

RESULTS

DATE ANAL.

KEY

Total Lead by furnace method
Total Solids

41mg/kg
86%

12/14/90
12/10/90

19

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *QSS*

QC: *MF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEUBEN DUPE C-DRUM PAD 12/6/90 1652H G

ULI I.D.: 34190065

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY
Total Lead by furnace method	56mg/kg	12/14/90	19
Total Solids	86%	12/10/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

APPROVAL: QSS

Analysis Results

QC: MF

Report Number: 011191018

Lab I.D.: 10170

Client I.D.: ALLWASH OF SYRACUSE

CORNING RCRA CLOSURE

Sampled by: ULI

STEUBEN D-BACKGROUND 12/6/90 1700H G

ULI I.D.: 34090154

Matrix: Soil

PARAMETERS

RESULTS

DATE ANAL.

KEY

Total Lead by furnace method
Total Solids

92mg/kg
90%

12/14/90
12/10/90

19

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

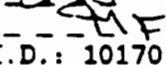
Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: 

QC: 

Lab I.D.: 10170

CORNING RCRA CLOSURE

ULI TRIP BLANK 12/14/90

ULI I.D.: 34890158

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

Acetone

<1mg/l

12/21/90

Benzene

<1ug/l

12/22/90

Toluene

<1ug/l

12/22/90

Xylenes

<1ug/l

12/22/90

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.
Analysis Results

APPROVAL: Q-88
QC: MF
Lab I.D.: 10170

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

CORNING RCRA CLOSURE
EQUIPMENT BLANK 12/14/90 G

ULI I.D.: 34890157

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

	Corrosivity	6.4SU	12/17/90	
	Flash Point	>60degC	12/18/90	
Total	Chromium by furnace method	0.006mg/l	12/20/90	
Total	Lead by furnace method	0.001mg/l	12/20/90	
	Acetone	<1mg/l	12/21/90	
	Benzene	<1ug/l	12/22/90	
	Toluene	<1ug/l	12/22/90	
	Xylenes	<1ug/l	12/22/90	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: WLI

APPROVAL: *QJ*

QC: *MF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEBEN DRUM PAD LOC A RESAMPLE 12/14/90 1550H G

ULI I.D.: 34890153

Matrix: Soil

PARAMETERS

RESULTS

DATE ANAL.

KEY

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *RS*

QC: *MF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

DI BLANK 12/19/90 1340H G

ULI I.D.: 35390131

Matrix: Water

PARAMETERS

RESULTS

DATE ANAL.

KEY

Total Lead by furnace method

0.003mg/l

12/26/90

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.
Analysis Results
Report Number: 011191018
Client I.D.: ALLWASH OF SYRACUSE
Sampled by: ULI

APPROVAL: *[Signature]*
QC: *[Signature]*
Lab I.D.: 10170

CORNING RCRA CLOSURE
STEUBEN SAMPLE E-SOIL 12/19/90 1335H G

ULI I.D.: 35390129

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY
Total Solids	83%	12/20/90	
Total Lead by furnace method	550mg/kg	12/26/90	19
TCLP Lead	1.4mg/l	01/08/91	

All results are on an as rec.d basis unless otherwise stated.

DATE: 01/11/91

Upstate Laboratories, Inc.

Analysis Results

Report Number: 011191018

Client I.D.: ALLWASH OF SYRACUSE

Sampled by: ULI

APPROVAL: *QJ*

QC: *MF*

Lab I.D.: 10170

CORNING RCRA CLOSURE

STEUBEN SAMPLE E-SOIL DUPE 12/19/90 1345H G

ULI I.D.: 35390130

Matrix: Soil

PARAMETERS

RESULTS

DATE ANAL.

KEY

Total Solids

70%

12/20/90

Total Lead by furnace method

510mg/kg

12/26/90

19

All results are on an as rec.d basis unless otherwise stated.

CHEMICAL ANALYSIS DEPARTMENT
ENVIRONMENTAL ANALYSIS REPORT
NYS DOH ELAP ID # 10494

To : SCOUTEN ,TIM
Date : MARCH 13, 1991

Job : 2863

Approved : *Carol A. Kape*

Material : ~~STEUBEN SOIL SAMPLE FOR RCRA CLOSURE~~ SUBMITTED FOR TCLP,
METALS, PCB'S, CORROSIVITY, REACTIVITY AND IGNITABILITY.

Other ID : ~~91-0071~~

cc : K. S. GROSS
CAD ENVIRONMENTAL FILE

Sample 1 : STEUBEN SOIL SAMPLE FOR RCRA CLOSURE

Analyst	Units	Analyte	Sample 1
RCH	Ag (TCLP)	mg/l Ag	<0.1
DJR	As (TCLP)	mg/l As	<0.1
DJR	Ba (TCLP)	mg/l Ba	1.9
DJR	Cd (TCLP)	mg/l Cd	<0.1
DJR	Cr (TCLP)	mg/l Cr	<0.1
DJR	Pb (TCLP)	mg/l Pb	19
RCH	Se (TCLP)	mg/l Se	<0.1
DJR	FINAL pH		5.2

PCB, CORROSIVITY, IGNITABILITY, AND REACTIVITY WERE ANALYZED BY FLI ENVIRONMENTAL SERVICES, INC. REPORTS ARE ATTACHED.

MERCURY ANALYZED BY GALSON TECHNICAL SERVICES INC. REPORT IS ATTACHED.

Client : Corning Incorporated
Account # : G4034
Site : ~~WWT Sludge~~ **STÄUBER** *(Handwritten)*
Date Received : 21-FEB-91 Matrix : Leachate
Date Sampled : 20-FEB-91 Method : EPA METHOD 7470
Units : mg/l

Galson ID: 1214-007 QM910226-1
Client ID: 91-0071 BLANK.

Mercury	< 0.0002	< 0.0002
---------	----------	----------

ug - microgram
mg - milligram
kg - kilogram

NR - Not Requested
NS - Not Specified
L - Liter

Approved by : *Thary B. H.*
Date : *3/6/91*

Footnotes:

LAB SAMPLE ID : 26001

Corning Incorporated
Carol A. Raplee
Decker Bldg.
HP-ME-03-070
Corning, NY 14831

Client Site : CORNING INC.
Origin : ~~01-0074-SOIL~~
Description : COMPOSITE
Sampled on : 02/20/91 by CI
Picked up on : 02/20/91 by JS
Date received : 02/21/91
PWS ID :
P.O. # :

<u>Analysis Performed</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method</u>	<u>Notebook Reference</u>
Corrosivity	NOBCORROS		03/06/91	EPA 1110	90-248-18
Cyanide Distillation	"		02/28/91		
Cyanide Reactivity	NONREACT		03/01/91	EPA 335.3	91-009-14
Ignitability	NONIGFIT		02/24/91	SV 846	87-122-47
Solids, Total	87.46	percent	02/22/91	EPA 160.3	88-256-64
Sulfide Distillation	"		02/28/91		
Sulfide Reactivity	NONREACT		03/07/91	SV 846	88-191-92

Approved by :


Manager

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

cc :

Mar 5, 1991

LAB SAMPLE ID : 26001

Corning Incorporated
 Carol A. Raplee
 Decker Bldg.
 HP-ME-03-070
 Corning, NY 14831

P.O. # :
 Client site : CORNING INC.
 Origin : ~~91-0071-5012~~
 Description : COMPOSITE
 Sampled on : 02/20/91 by CI
 Date received : 02/21/91
 PWS ID # :

* Key	Method	Analyst	Date Analyzed	Notebook Reference
1	SW846/8080/3540/3620/3660	RJH	02/26/91	90-086-109
2	SW846/8080/3540/3620/3660	RJH	02/27/91	90-086-106

Compound Detected	Concentration	Units	Key *
PCB's			
PCB 1016	ND<9	ppm	1
PCB 1221	ND<9	ppm	1
PCB 1232	ND<9	ppm	1
PCB 1242	ND<9	ppm	1
PCB 1248	ND<9	ppm	1
PCB 1254	*		
PCB 1260	202	ppm	2

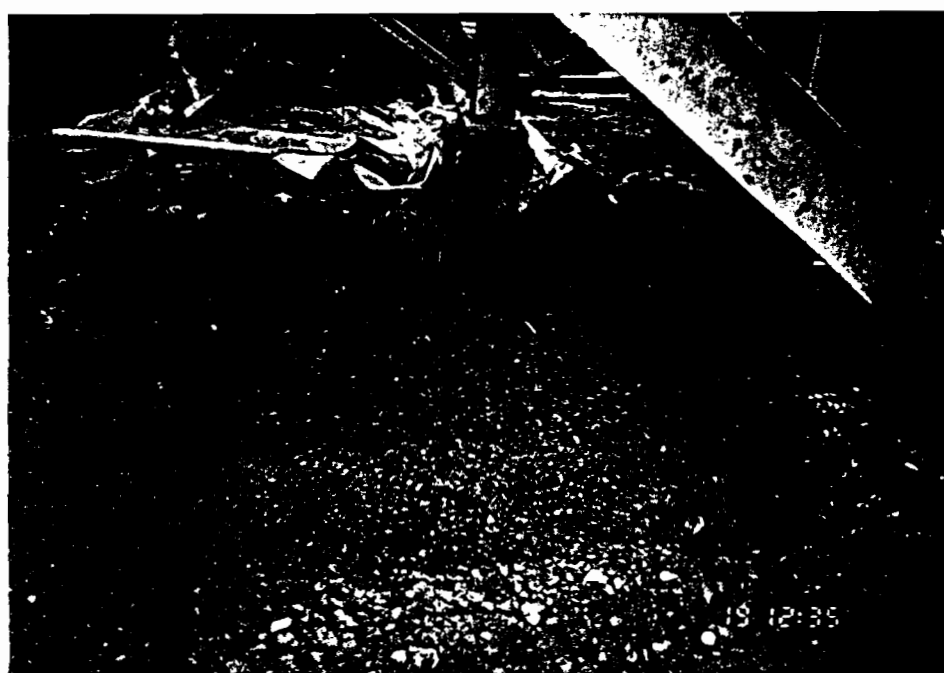
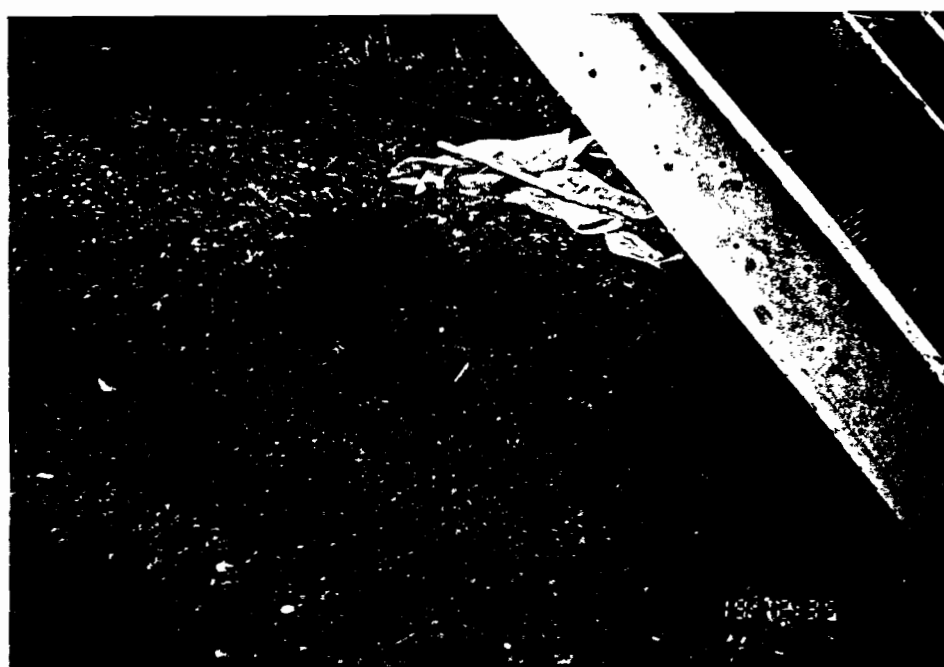
COMMENT: * Due to the high level of PCB 1260, identification of PCB 1254 is not possible. PCB analysis is performed on a dry weight basis.

Approved by : Ralph J. Hunderslet
 Manager, Organics

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

cc :

STEUBEN HOT
SPOT EXCAVATION





TRC Environmental Corporation

1-800-TRC-5601

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