FINAL REPORT

CORRECTIVE ACTION PRIOR TO LOSS OF INTERIM STATUS INSPECTION INDUSTRIAL SERVICE CORPORATION ELMIRA, NEW YORK

EPA I.D. NO. NYD002221430

Prepared for:

U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York, 10278

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EPA Contract No. 68-01-7038
Work Assignment No. R02-01-64

March 1989

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INDUSTRIAL SERVICE CORPORATION
ELMIRA, NEW YORK

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1.0 INTRODUCTION

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

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

DPRA conducted a CAPT LOIS inspection at Industrial Service Corporation located at 926 Stowell Street in Elmira, New York. As the first phase of the inspection, DPRA conducted a file review at the offices of U.S. EPA Region II and the New York State Department of Environmental Conservation (NYSDEC). As part of the file review, DPRA identified Solid Waste Management Units (SWMUs) and any other areas of concern (AOCs) located at the facility. As the second phase of the inspection, DPRA conducted a site visit at Industrial Service Corporation on February 28, 1989. DPRA conducted the site visit to verify the information in the file materials, identify any additional SWMUs and AOCs, and observe any evidence of releases from the SWMUs or AOCs. Based on the results of the site visit, DPRA has prepared and submitted this report to the U.S. EPA to reflect the actual conditions at Industrial Service Corporation. This report describes the facility and discusses the findings of the file review and site visit.

Pertinent information regarding the facility is presented below:

Facility Name:	Industrial Service Corporation
U.S. EPA ID No.	NYD002221430
Address:	926 Stowell Street Elmira, New York
Facility Contact:	Joe Morgan Vice President
Telephone:	(607) 733-5621

2.0 FACILITY DESCRIPTION

The Industrial Services Corporation is located at 926 Stowell Street, Elmira, Chemung County, New York. Figure 1 identifies the location of the facility. The facility is surrounded by light industrial and residential areas. Industrial Services began operations in May of 1945. There have been six or seven additions to the facility. This facility is a small electroplating job shop. Plating with chromates, nickel, and cyanides is performed at the facility. A Wastewater Pretreatment System was installed at the facility in 1984. All wastewaters generated in plating operations are treated within this system. The wastewater treatment system generates an F008 sludge. Prior to installation of the Wastewater Pretreatment System, the wastewaters were discharged directly to the local POTW (Ref. 17).

Industrial Services filed a Notification of Hazardous Waste Activity on August 13, 1980 for generation and underground injection (Ref.1) and filed a Part A Permit Application on November 14, 1980 for storage in containers (Ref. 2). The facility made a formal request to EPA for declassification based on a protective filing and stated that they were operating as a generator (Ref. 8). A March 1987 inspection report stated that the facility had been reclassified to generator status by the New York State Department of Environmental Conservation in February 1985 (Ref. 10).

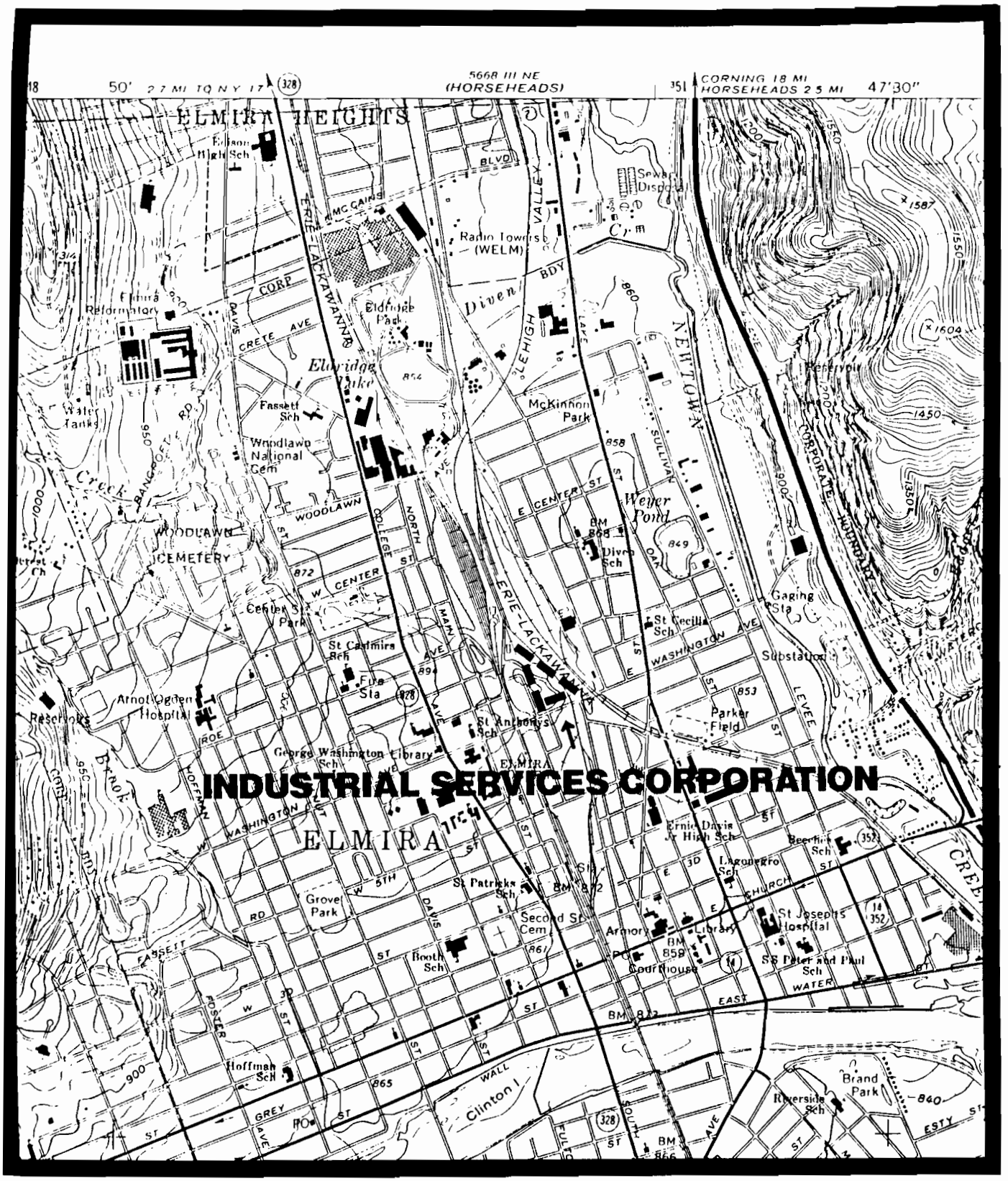
Industrial Services was inspected in 1983 and was found to be storing wastes for greater than 90 days (Ref. 18). Additions and modifications to an approved closure plan for a drum storage area and a hazardous waste storage tank were submitted on August 10, 1988 (Ref. 11). The drum storage area and the hazardous waste tank are currently undergoing closure.

3.0 SOLID WASTE MANAGEMENT UNITS

During the file review and site visit, DPRA identified 16 solid waste management units (SWMUs) at the Industrial Services facility:

(1) Drum Storage Area,
(2) 600-Gallon Tank,
(3) Outdoor Waste Storage Tank,

Figure 1. Facility Location Map for Industrial Services Corporation



SCALE 1 24 000

0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

MN GN

9½° 169 MILS 1°13' 22 MILS

UTM GRID AND 1969 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

NEW YORK

QUADRANGLE LOCATION

Reference: 15

(4) Roll-Off Box,
(5) 15-Gallon Spill Tank,
(6) Receiving Basin,
(7) Basement Sump,
(8) Main Sump,
(9) Cyanide Oxidation Unit,
(10) Holding Tank,
(11) Electrochemical Cells,
(12) Degassing Tank,
(13) Clarifier,
(14) Filter Press,
(15) Filter Press Sump, and
(16) Secondary Sump.

See Figures 2 and 3 for the locations of these SWMUs.

The following sections describe each SWMU, discuss the unit status, identify the waste types handled, describe the waste management procedures, and describe the remedial actions (if any) taken in response to releases from the unit.

3.1 Drum Storage Area

(Photograph 1.1)

Description:

The Drum Storage Area is located indoors on a concrete floor. The unit is an approximately 70 square foot area (Ref. 11) and was used to store hazardous waste for an indeterminate period of time. The facility was cited in 1983 (Ref. 18) and again in 1986 (Ref. 17) for storing wastes in this area for greater than 90 days. The unit is currently undergoing closure under an approved RCRA closure plan (Ref. 17).

A March 1987 inspection conducted in conjunction with a criminal investigation of Industrial Services by the Bureau of Environmental Conservation analyzed a sample from the drum storage area. The sample contained 94 ppm cyanide (Ref. 18). During the same investigation, a drum was leaking within the drum storage area and it was tested for

Figure 2. SWMU Location Map, Upper Level

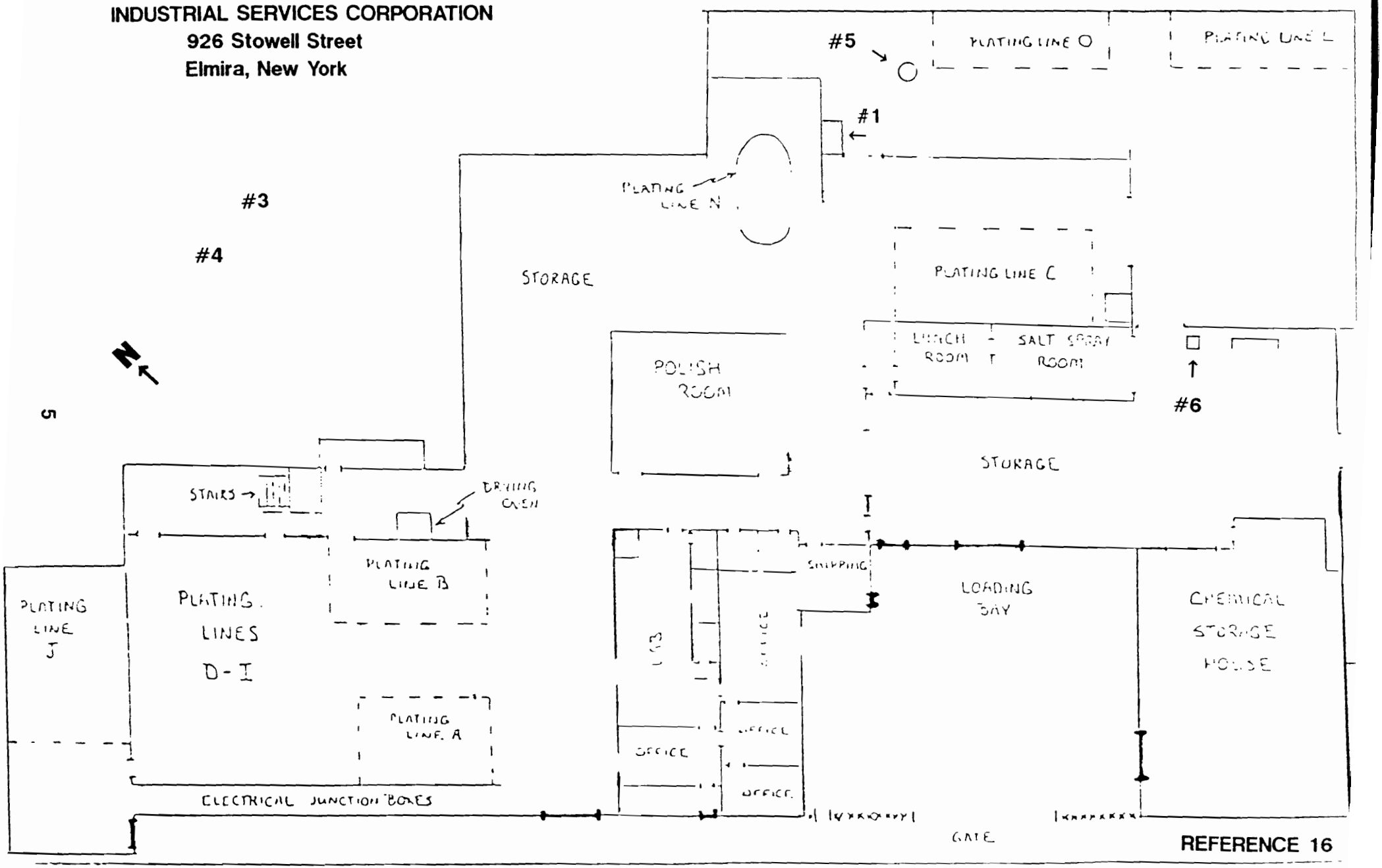
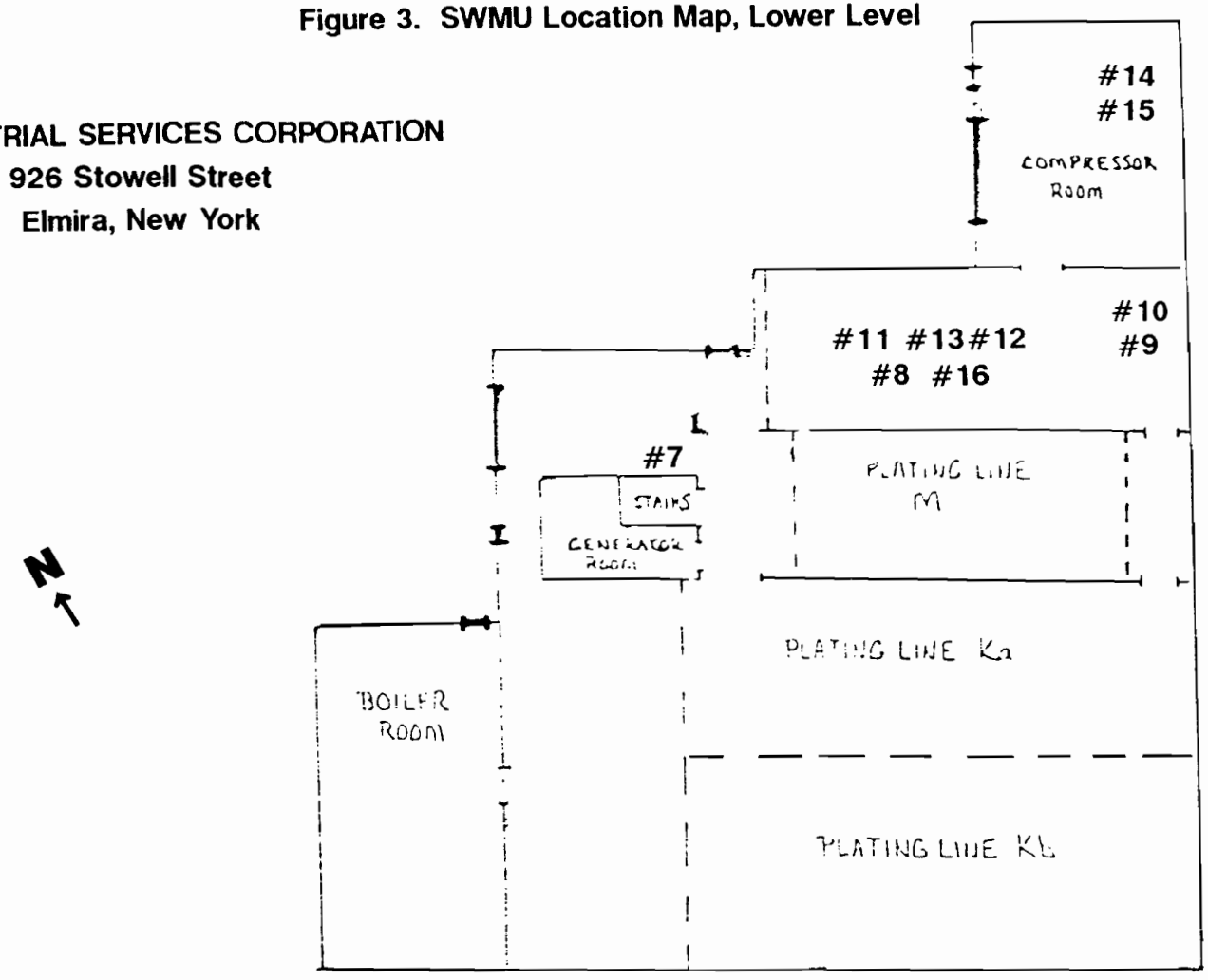


Figure 3. SWMU Location Map, Lower Level

INDUSTRIAL SERVICES CORPORATION
926 Stowell Street
Elmira, New York



SCALE : UNKNOWN

REFERENCE 16

cyanide (Ref. 10); no results for this sample are provided. It is uncertain from the reference material if this is the same sample.

Industrial Services submitted modifications to an approved closure plan in August of 1988. The closure plan states that the floor of the Drum Storage Area will be tested for cadmium, complexed cyanide and lead (Refs. 11 and 13).

At the time of the inspection, the Drum Storage Area was not in use. The floor appeared clean and the concrete was in good condition.

Status:

This unit is no longer in service. The area is undergoing closure under an approved RCRA closure plan.

Waste Type:

This unit stored plating sludges and plating wastewater treatment sludges (F008) and spent stripping solutions (D002) (Ref. 17).

Waste Management:

The Drum Storage Area was used to store 55-gallon drums of hazardous waste prior to shipment off site for disposal. The unit was cited in 1983 (Ref. 18) and 1986 (Ref. 17) for storing wastes for greater than 90 days.

Known and Suspected Releases:

The unit is located indoors on a concrete floor. At the time of the inspection the floor appeared to be in good condition (Ref. 17). A memo to the New York State Department of Environmental Conservation file indicates that during an inspection conducted in March 1987, samples were taken in the Drum Storage Area and found to have 94 ppm cyanide (Ref. 18). The March 1987 inspection reports that one 55-gallon drum was leaking at the time of the inspection and it was tested for cyanide content (Ref. 10).

3.2 600-Gallon Tank

(Photographs 2.1 and 2.2)

Description:

A 600-Gallon Tank was used to store a corrosive waste on Industrial Services' property in a parking lot across Stowell Street. The parking lot is paved with asphalt, but the integrity of the asphalt is not intact (Ref.17). A March 1987 inspection cited Industrial Services for storing waste in this tank. The waste was found to have a pH of approximately one. Facility representatives stated at that time that all tanks stored outside had been triple rinsed (Ref. 10). An inspection in 1982 mentioned a 600-gallon tank of phosphoric acid stored outside covered with asphalt shingles (Ref. 4). It is uncertain if this is the same tank.

After the March 1987 inspection, the tank was brought indoors. The tank contained six to eight inches of corrosive electropolishing sludge (D002). Water was added to the waste and the acidic solution was used in the neutralization process of the Wastewater Pretreatment System as needed (Ref. 19). The tank was still not emptied as of June 23, 1988 when a representative of the New York State Department of Environmental Conservation was on site (Ref. 18). The facility was cited for storing hazardous waste in this tank for greater than 90 days and the New York State Department of Environmental Conservation requested a RCRA closure plan for this unit (Ref. 18).

Modifications to an approved RCRA closure plan were submitted by Industrial Services in August of 1988. The closure plan called for triple rinsing of the tank followed by sampling to test the effectiveness of decontamination (Ref. 11). Industrial Services will be testing residues in the tank for pH, heavy metals and volatile organics. A contingency to sample the soils in the area where the tank was stored will be implemented if the analyses show any hazardous constituents present in the waste residue (Ref. 19).

Status:

This unit is currently undergoing closure under an approved RCRA closure plan. The tank has been brought indoors and emptied of all waste. Samples have been taken to determine if the unit requires further decontamination and to determine if soil sampling in the area where the tank was located will be required.

Waste Type:

This unit stored corrosive wastes (D001) with a pH of approximately one.

Waste Management:

This tank was located in a parking lot across the street from the manufacturing facilities and stored a characteristic waste with a pH of approximately one (Ref.18). The tank was moved inside in mid-1987 (Ref.10) and the contents of the tank were used in the Wastewater Pretreatment System neutralization process (Ref. 18). This tank was used to store hazardous waste for greater than 90 days.

Known and Suspected Releases:

There are no known releases from this unit. The tank was stored outside with a piece of plywood partially covering the tank. The tank was located on an asphalt parking lot. At the time of the inspection, the condition of the asphalt was very poor.

3.3 Outdoor Waste Storage Tank

(Photograph 3.1)

Description:

During a 1982 inspection, the facility was cited for storing a 400 to 500-gallon tank of cyanide waste outdoors near the edge of a steep hill. The tank was covered with plywood at the time of the inspection (Ref. 4). A Consent Agreement and Final Compliance Order issued in February 1983 required Industrial Services to store the tank in a manner which insures its structural integrity (Ref. 6).

Facility representatives were unable to recall the location where this tank was stored at the time of the inspection, but stated that all tanks stored outdoors were triple rinsed prior to being set outside. The representative stated that it was common practice to rinse tanks and store them outside when they were not in use and did not think the tank actually contained waste, but rather rainwater (Ref. 17).

No closure plan was submitted for this unit and no information is available on the removal and disposal of the tank and its contents. File materials do not indicate if the cyanide waste was hazardous and facility representatives did not know if it was hazardous.

Status:

The Waste Storage Tank is no longer in this location. The period of operation for the tank is indeterminate and it is uncertain if the tank stored waste for greater than 90 days. An inspection in 1982 found tanks outdoors near a steep hill storing cyanide waste (Ref. 18).

Waste Type:

The Outdoor Waste Storage Tank stored cyanide wastes. No analyses are available for this waste and file materials do not indicate if the waste was hazardous.

Waste Management:

The management practices for this tank are unknown.

Known and Suspected Releases:

There are no known releases from this unit. An open-topped 400 to 500-gallon tank containing cyanide waste was stored at the edge of a steep hill. There was a high probability for release from this unit since it was open-topped and allowed precipitation to enter it.

3.4 Roll-Off Box

(Photograph 4.1)

Description:

The Roll-Off Box is used to store F008 sludge generated by the Wastewater Pretreatment System. The Roll-Off Box is stored outdoors on an asphalt pad. The Roll-Off Box is covered with a tarp. The unit receives dewatered wastewater treatment sludge (F008) from the Filter Press Hopper.

Status:

This unit is currently active. The start-up date for this unit is unknown, but it is sometime after 1984 when the Wastewater Pretreatment System was installed.

Waste Type:

This unit stores electroplating wastewater treatment sludges, F008.

Waste Management:

The Roll-Off Box is used as a less-than-90-day storage area for electroplating wastewater treatment sludges, F008.

Known and Suspected Releases:

There are no known or suspected releases from this unit. The Roll-Off Box is covered with a tarp and stored on an asphalt paved area.

3.5 15-Gallon Spill Tank

(Photograph 5.1)

Description:

The 15-Gallon Spill Tank was installed in 1988 to contain any spills that occur in the plating area of the upper level. A 15-gallon polypropylene tank is set into the floor to collect spills. The tank is approximately 12 inches in diameter and 3 -1/2 feet deep. The tank is covered with a metal grate. The tank has not been pumped out since its installation, but there were approximately 1-1/2 feet of a yellowish-brown liquid in the tank at the time of the inspection (Ref. 17). When necessary, the sump will be manually pumped and discharged to the Main Sump (SWMU 8).

Status:

The 15-Gallon Spill Tank was installed in 1988. The unit is currently in operation.

Waste Type:

The unit collects spills in the plating area.

Waste Management:

The 15-Gallon Spill Tank collects spills in the plating area. The unit is manually pumped as necessary to remove wastes. Wastes from this unit will be discharged to the Main Sump (SWMU 8).

Known and Suspected Releases:

There are no known or suspected releases from this unit. The polypropylene tank was installed in 1988.

3.6 Receiving Basin

(Photograph 6.1)

Description:

The receiving basin is located near the loading dock. Facility representatives stated that this unit received rinsewaters from a parts tumbler located near the basin. Details of construction, capacity and start-up date for this unit are unknown. The Receiving Basin discharged directly to the sanitary sewer instead of to the Main Sump (SWMU 8) of the Wastewater Pretreatment System (Ref. 17). The unit was partially cemented in after it was discovered that it discharged to the sanitary sewer in 1987 (Ref. 17). File materials indicate that the Chemung County Health Department received an anonymous tip that employees of Industrial Services were dumping hazardous waste into this unit. Tests found high levels of cadmium in this unit (Ref. 18). The cadmium levels were not specified

Status:

This unit is inactive. It was partially sealed with cement (Refs. 17 and 18).

Waste Type:

This unit received rinsewater from a parts tumbler. The wastewater contained cadmium (Ref. 18).

Waste Management:

This unit received wastewater from a parts tumbler (Ref. 17) and discharged the wastewater directly to the sanitary sewer, bypassing the Wastewater Pretreatment System. The Chemung County Health Department received an anonymous tip that employees of Industrial Services were dumping wastes to this basin (Ref. 18).

Known and Suspected Releases:

This unit was discharging untreated wastewater directly to the sanitary sewer and the

Chemung County Health department received an anonymous tip that employees were dumping waste to this unit.

3.7 Wastewater Pretreatment System

(SWMUs 7 through 16)
(Photographs 7.1 through 16.1)

Description:

The Wastewater Pretreatment System is located in the Wastewater Treatment Room at Industrial Services. All plating wastewaters from the upper level of the facility except the wastes containing cyanide are collected in the Main Sump (SWMU 8) prior to entering the Andco Wastewater Pretreatment System and wastes from the Holding Tank (SWMU 10) are discharged to the Main Sump. All plating wastewaters from the lower level of the facility are collected in the Basement Sump (SWMU 7) and then discharged to the Main Sump. The Main Sump also will receive wastewater collected in the 15-Gallon Spill Tank (SWMU 5). The Basement Sump is approximately 2-1/2 feet by 2-1/2 feet by 5 feet deep and is covered with a metal grate. The Main Sump is approximately 6 feet by 15 feet by 9 feet deep. Neither sump is surrounded by a dike. The pH is adjusted as needed in the Main Sump. Acids and bases are added as needed to keep the pH within specified limits for the Electrochemical Cells (SWMU 11) (Ref 17).

The Electrochemical Cells are three electrochemical cells operated in series. A direct current is applied as wastewater passes through electrodes. The current causes the production of hydroxyl ion (OH^-) and hydrogen gas (H_2) from water and generation of ferrous ion. The result is a wastewater solution with metal hydroxides. The electric current also serves to reduce hexavalent chromium (+6) to trivalent chromium (+3) (Ref. 17).

The wastewater from the Electrochemical Cells is discharged to the Degassing Tank (SWMU 12). The Degassing Tank removes hydrogen gas from the wastewater and vents it to the atmosphere. The Degassing Tank discharges wastewater to the Clarifier (SWMU 13) where an anionic polymer is added to aid in settling the metal hydroxides. The Clarifier is separated into a flocculation chamber and a clarifying section. Effluent from the Clarifier overflows to the Secondary Sump (SWMU 16) prior to discharge to the local POTW. The

Secondary Sump provides a sampling location for monitoring required by the local POTW. The Secondary Sump is not equipped with a containment dike to prevent spills on the floor of the treatment room from entering it (Ref. 17).

Sludge is withdrawn from the bottom of the Clarifier and is sent to the Filter Press (SWMU 14) to remove additional water from the sludge. Wastewater from the sludge is sent back to the Main Sump (SWMU 8) for additional treatment. The sludge is discharged to the Filter Press Hopper (SWMU 15), which is located directly below the Filter Press. The sludge from the Filter Press Hopper is stored in the Roll-Off Box (SWMU 4) prior to shipment off site for disposal (Ref. 17).

The Wastewater Pretreatment System is equipped with a Cyanide Oxidation Unit (SWMU 9) to destroy cyanide ions in the wastewater. Plating wastes containing cyanide are discharged directly to the Cyanide Oxidation Unit. The Cyanide Oxidation Unit discharges wastewater to the Holding Tank (SWMU 10). The Holding Tank pumps wastewater to the Main Sump (SWMU 8) where it is mixed with the other plating wastes (Ref. 17).

During the inspection, the Holding Tank was overflowing onto the floor of the Wastewater Treatment Room. Facility representatives stated that the pump for this tank was undergoing repairs. Since the Secondary Sump is not diked and this unit is located closer to the Holding Tank than the Main Sump, it is likely that partially treated wastewaters were being released to the POTW at this time.

File materials state that sampling results of the stairway to the lower level of the facility in March of 1987 showed 12 ppm cyanide. No indication of the sample type was given (Ref. 18).

Status:

The Wastewater Pretreatment System is currently active. The Andco treatment system was installed in 1984.

Waste Type:

All plating wastewaters generated at the facility are treated through these units. The Wastewater Pretreatment System generates a dewatered F008 sludge.

Waste Management:

The Wastewater Pretreatment System treats plating wastes generated by Industrial Services. Cyanide oxidation, chromium reduction, precipitation, clarification, filtration, and dewatering are performed within the Pretreatment System. Treated wastewaters are discharged to the POTW and dewatered sludge (F008) is sent to the Roll-Off Box (SWMU 4).

Known and Suspected Releases:

The Holding Tank (SWMU 10) was overflowing at the time of the inspection. This partially treated wastewater was most likely being discharged through the Secondary Sump (SWMU 16) to the POTW. Sampling in 1987 on the stairway to the lower level showed cyanide levels of 12 ppm (Ref. 18).

4.0 SUMMARY AND CONCLUSIONS

Industrial Services has been operating as an interim status facility. In February 1983, the New York State Department of Environmental Conservation recognized that Industrial Services was operating as a generator only, but the facility was cited for storing wastes for greater than 90 days in 1983 and 1986. The New York State Department of Environmental Conservation subsequently required Industrial Services to submit closure plans for two greater-than-90-day storage areas (SWMUs 1 and 2). The facility is currently undergoing closure of these units.

During the file review and site inspection, DPRA identified 16 solid waste management units (SWMUs) at the Industrial Services facility: a former drum storage area, two former outdoor storage tanks, a spill containment tank, a sludge roll-off box, a receiving basin, and ten units associated with the Wastewater Pretreatment System.

The Drum Storage Area (SWMU 1) is undergoing closure under an approved RCRA closure plan. The unit is located indoors on a concrete floor. The 15-Gallon Spill Tank (SWMU 5) is a 15-gallon polypropylene tank set into the floor of the plating area to collect any spills that occur in this area. The unit was installed in 1988. The Roll-Off Box stores F008 prior to shipment off site for disposal. The unit is located on an asphalt pad and is covered with a tarp. No further action is suggested for these units.

The Receiving Basin (SWMU 6) was found to be discharging untreated rinsewater to the sanitary sewer system in 1987. The unit was partially filled with cement in 1987. Samples from this unit showed high levels of cadmium. Since this unit is no longer active, it is not discharging to the POTW, and sampling is not feasible, no further action is suggested.

The two outdoor storage tank areas (SWMUs 2 and 3) are inactive. Both of the tanks were partially covered with plywood and rainwater was allowed to enter them. The 600-Gallon Waste Storage Tank (SWMU 2) was stored on an asphalt parking lot across Stowell Street from the facility. The integrity of the asphalt is very poor in the area where the tank was stored. The Outdoor Waste Storage Tank (SWMU 3) was stored at the edge of a steep hill and was open-topped. Soil sampling is necessary to determine if there have been releases of hazardous constituents from these units. Soil samples from the area where the 600-Gallon Waste Storage Tank was located will be analyzed for heavy metals and volatile organics if these constituents are determined to be present in the waste during closure of the unit. The soil samples in the Outdoor Waste Storage Tank area should be analyzed for cyanide and EP Toxic metals.

The Wastewater Pretreatment System was installed in 1984. Prior to this time, wastewater was discharged directly to the local POTW. At the time of the inspection, wastewater from the Holding Tank (SWMU 10) that contains partially treated wastewaters was overflowing. It is likely that this wastewater was intercepted by the Secondary Sump (SWMU 16) and discharged to the POTW. Industrial Services should determine if overflow from the Holding Tank enters the Secondary Sump. If discharge is entering the sanitary sewer, it is suggested that the facility install curbing to direct overflow to the Main Sump (SWMU 8).

REFERENCES

1. Notification of Hazardous Waste Activity, Industrial Service Corp., August 13, 1980.

2. Industrial Service Corp., Part A Permit Application, November 14, 1980.

3. Joseph Kane, Assistant Sanitary Engineer, Chemung County Health Department, Letter to William Karski, Vice President, Industrial Service Corp., March 19, 1982.

4. RCRA Generator Inspection Form, Industrial Service Corp., May, 6, 1982.

5. Complaint, Compliance Order, and Notice of Opportunity for Hearing, Docket No. II RCRA-82-0218, Industrial Service Corp., July 2, 1982.

6. Consent Agreement and Final Compliance Order, Docket No. II RCRA-82-0218, Industrial Service Corp., February 14, 1983.

7. RCRA Inspection Form, Industrial Service Corp., July 11, 1983.

8. George P. Zurenda, President, Industrial Service Corp., Letter to Richard A. Baker, Chief, Permits Administration Branch, U.S. EPA, Region II, October 25, 1983.

9. Joseph Kane, Assistant Sanitary Engineer, Chemung County Health Department, Memorandum to Tom Marriott, Division of Air, NYSDEC, Region 8, July, 25, 1984.

10. Inspection Form, New York State Industrial Hazardous Waste Management Act, Industrial Service Corp., March 9, 1987.

11. Facility Closure Plan, Industrial Service Corp., August 10, 1988.

12. David Markell, NYSDEC, Memorandum to Commissioner Jorling, November 4, 1988.

13. Joseph Morgan, Vice President, Industrial Service Corp., Letter to Thomas J. Killeen, Assistant Sanitary Engineer, Division of Hazardous Substances Regulation, NYSDEC, November 7, 1988.

14. Facility Closure Plan, Industrial Service Corp., no date.

15. United States Geological Survey, Elmira, New York Quadrangle, 1969.

16. Facility Layout Diagram, undated.

17. Visual Site Inspection Logbooks, Barbara Hendricks and Craig Larson, DPRA Incorporated, February 28, 1989.

18. Tom Killeen, New York State Department of Environmental Conservation, Memo to Industrial Services Corporation File, August 10, 1988.

19. Tom Killeen, New York State Department of Environmental Conservation, Telephone Conversation with Barbara Hendricks, DPRA Incorporated, March 28, 1989.

APPENDIX A

PHOTOGRAPHS TAKEN DURING THE SITE VISIT

INDUSTRIAL SERVICE CORPORATION
ELMIRA, NEW YORK

PHOTOGRAPH LOG

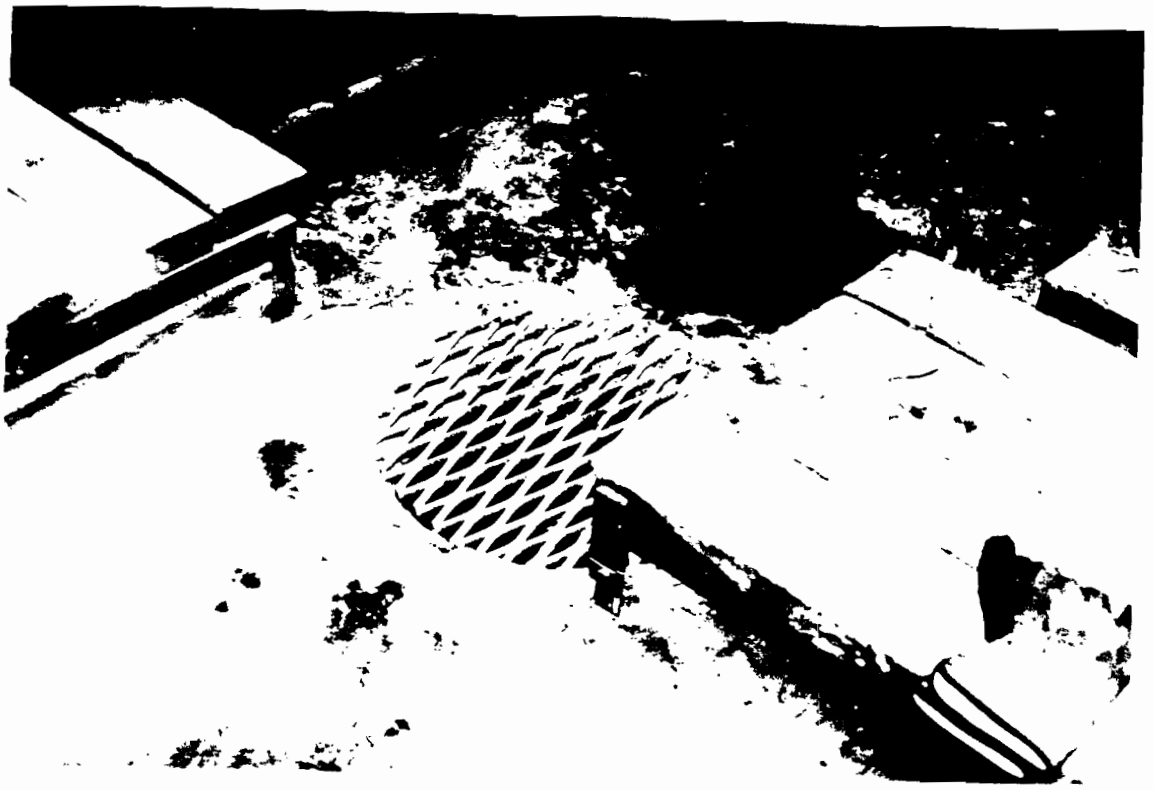
The photographs on the following pages document the observations made during the VSI. The photographs are identified by a number which is the SWMU identifier. In a few cases, several photographs are provided to identify various observations of a unit. These are designated with a number to the right of the decimal following the identifying SWMU number. For example, Photograph 2.3 is the third observation made of SWMU No. 2.

1.1 Location of the former Drum Storage Area. The paint supplies in the photograph were being used in this area at the time of the inspection.

2.1 The location where the 600-Gallon Tank was stored across Stowell Street.

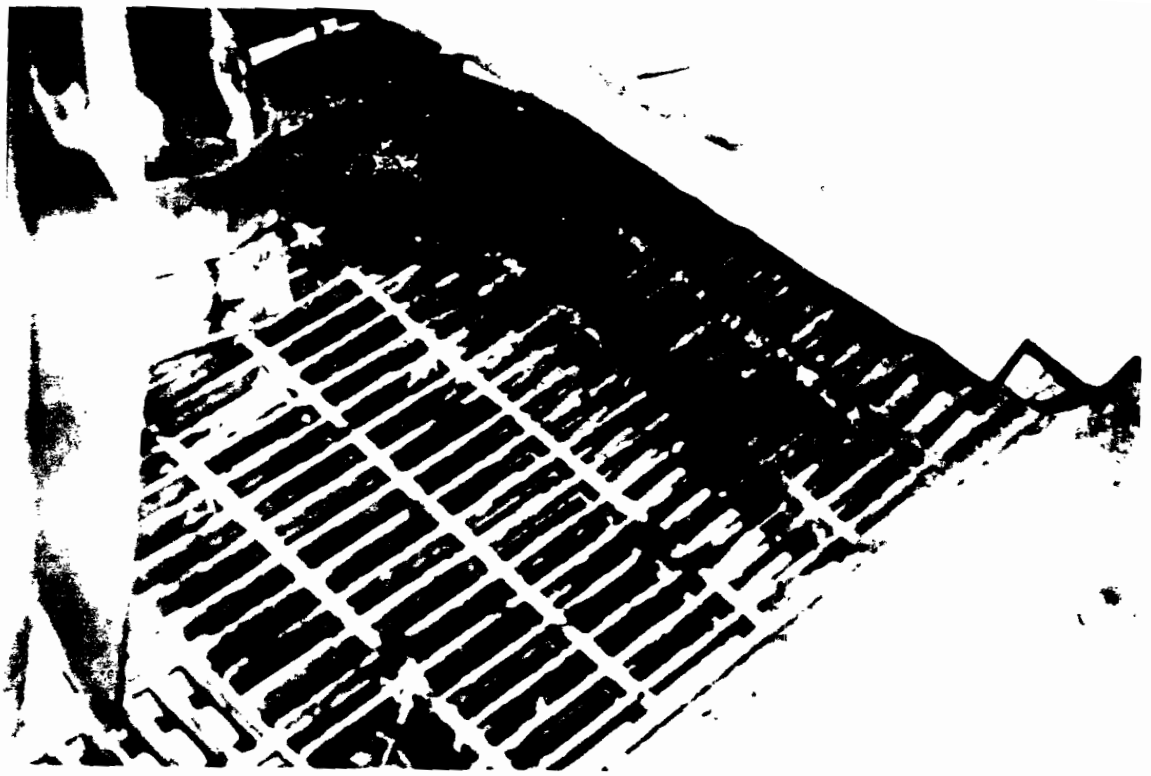
2.2 The 600-Gallon Tank has been emptied and moved indoors.

3.1, 4.1 The Roll-Off Box stores wastewater treatment sludge prior to shipment off site for disposal.

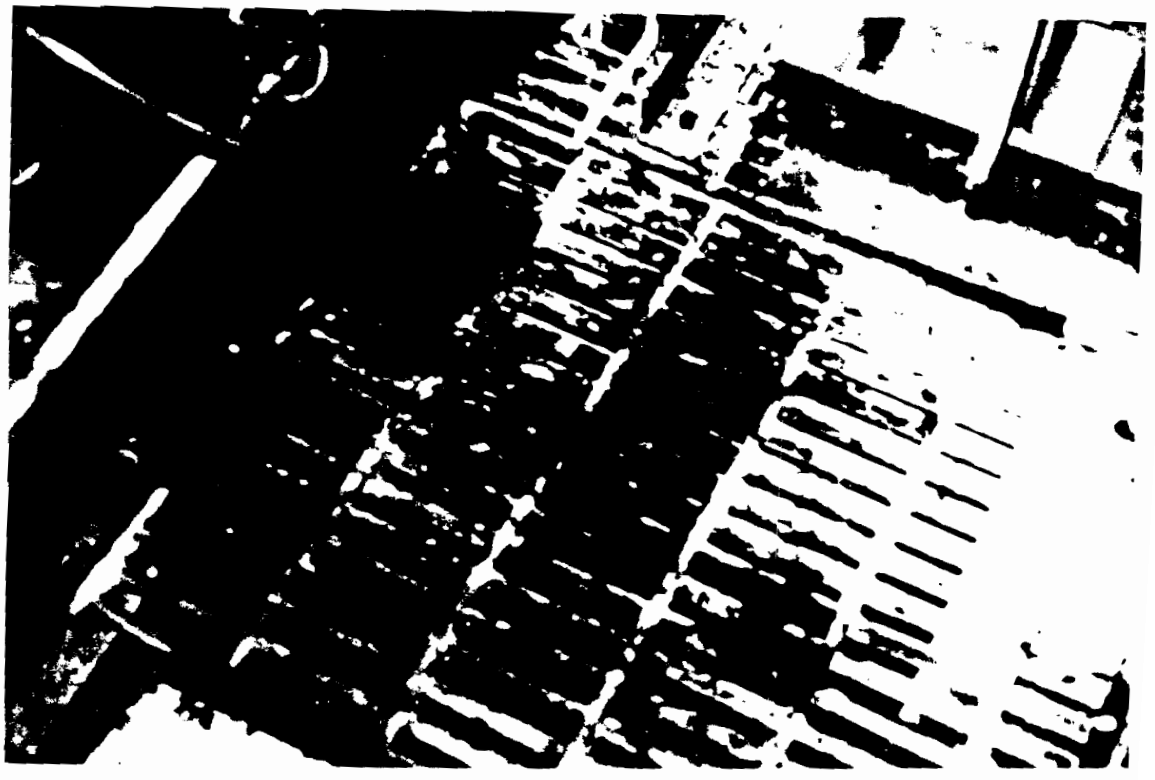


5.1 The 15-Gallon Spill Tank was installed to collect spills in the plating shop.

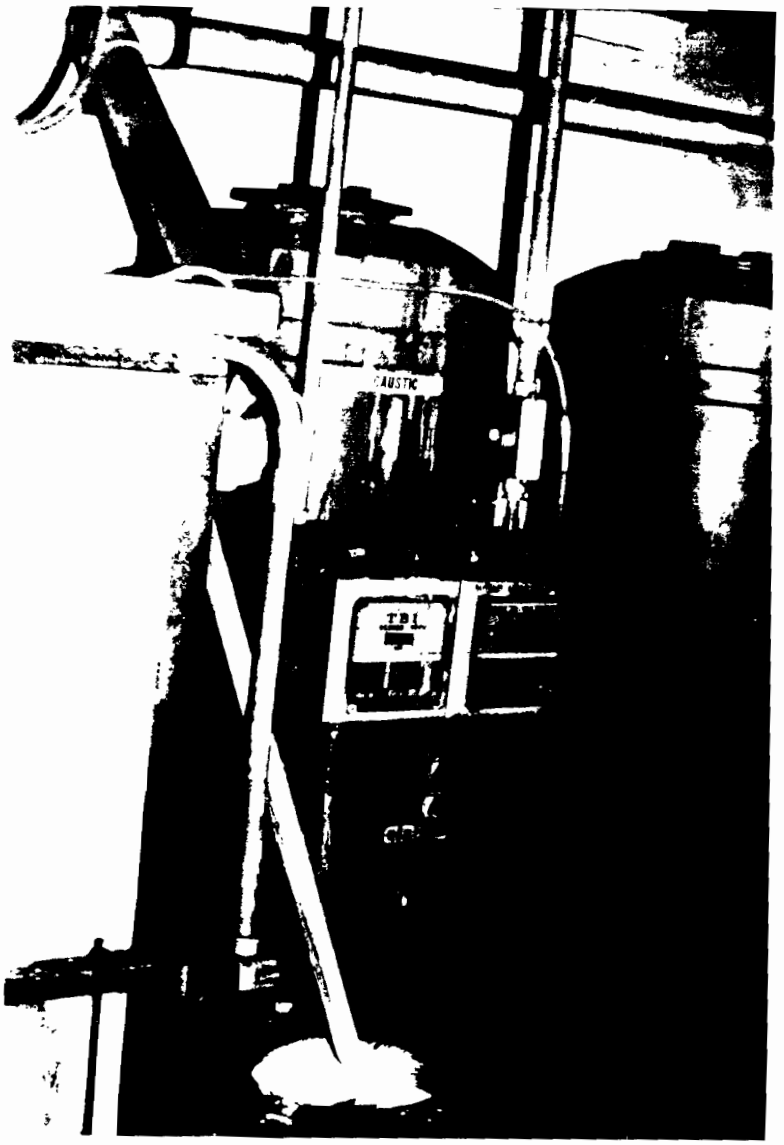
6.1 The Receiving Basin has been partially filled with cement. The oil stain is from raw materials currently stored in this area.



7.1 The Basement Sump collects wastewater from all drains in the basement.



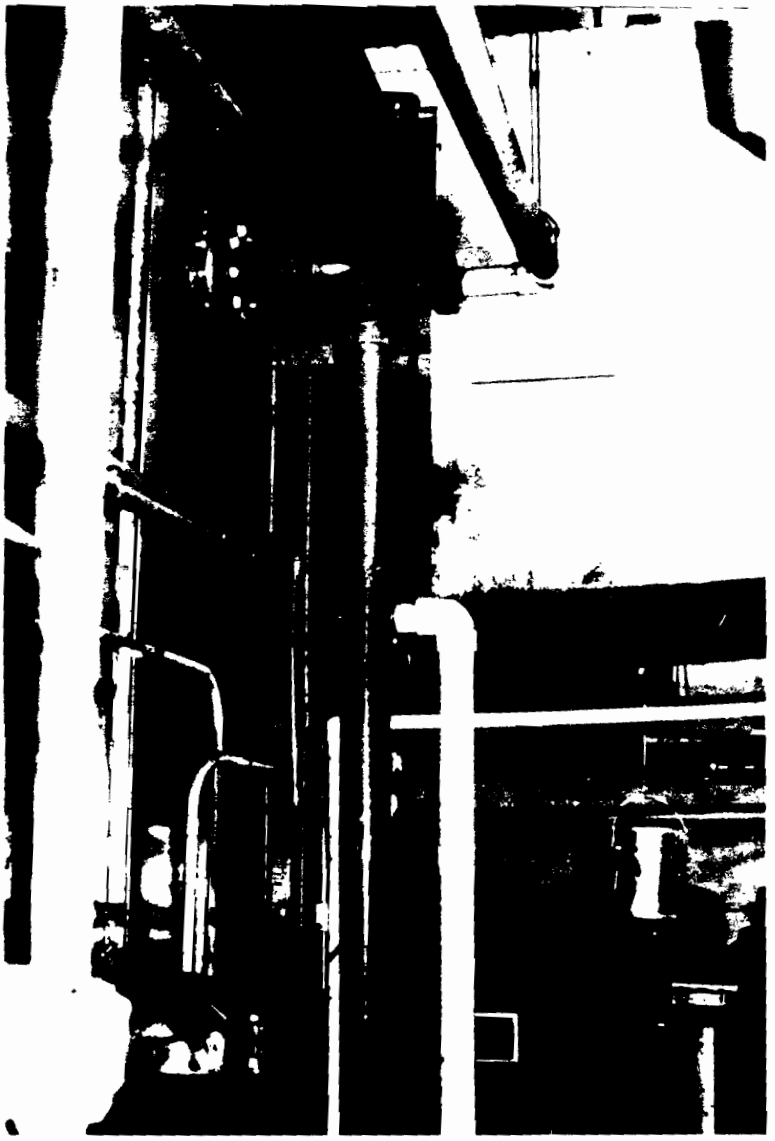
8.1 The Main Sump is located under the Wastewater Pretreatment Units and receives wastewater from the main floor plating lines and the Basement Sump (SWMU 7).



9.1 The Cyanide Oxidation Unit treats all wastewaters containing cyanide. Note the Holding Tank (SWMU 10) to the left of the photograph.

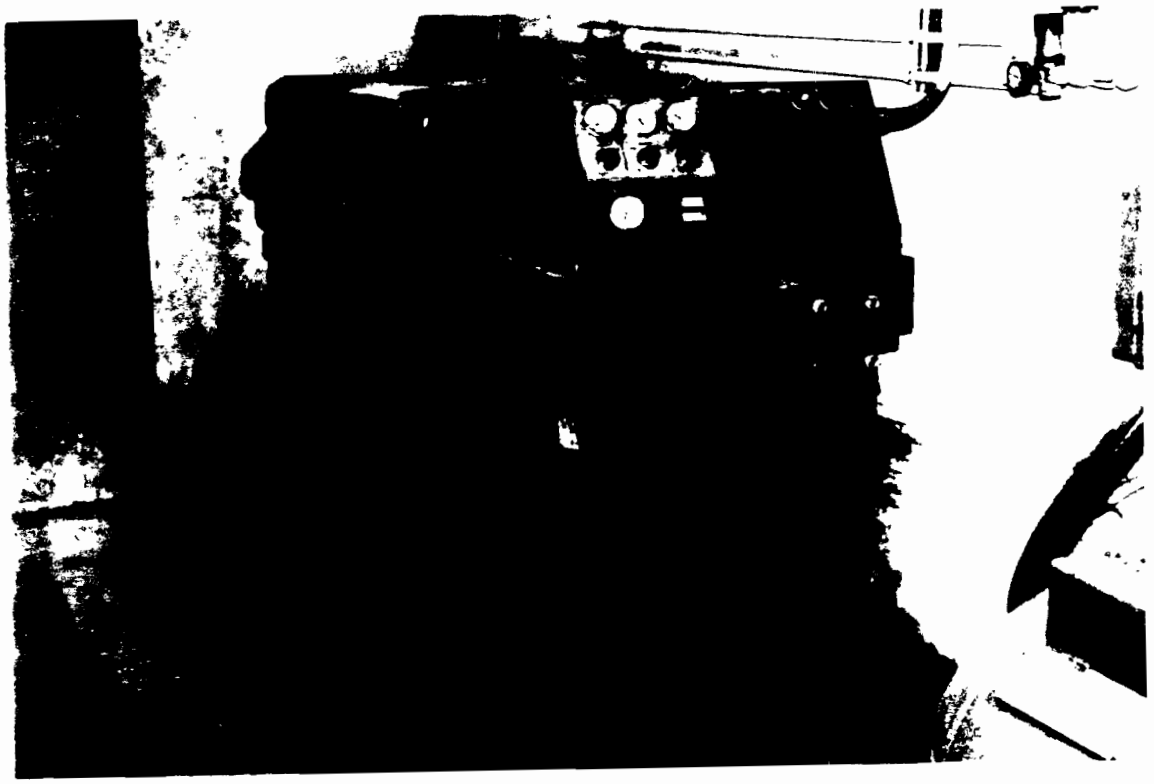
10.1 The Holding Tank was overflowing at the time of the inspection. Facility representatives stated the pump for the tank was shut down for repairs.

11.1 The three Electrochemical Cells operate in series in the Wastewater Pretreatment System.

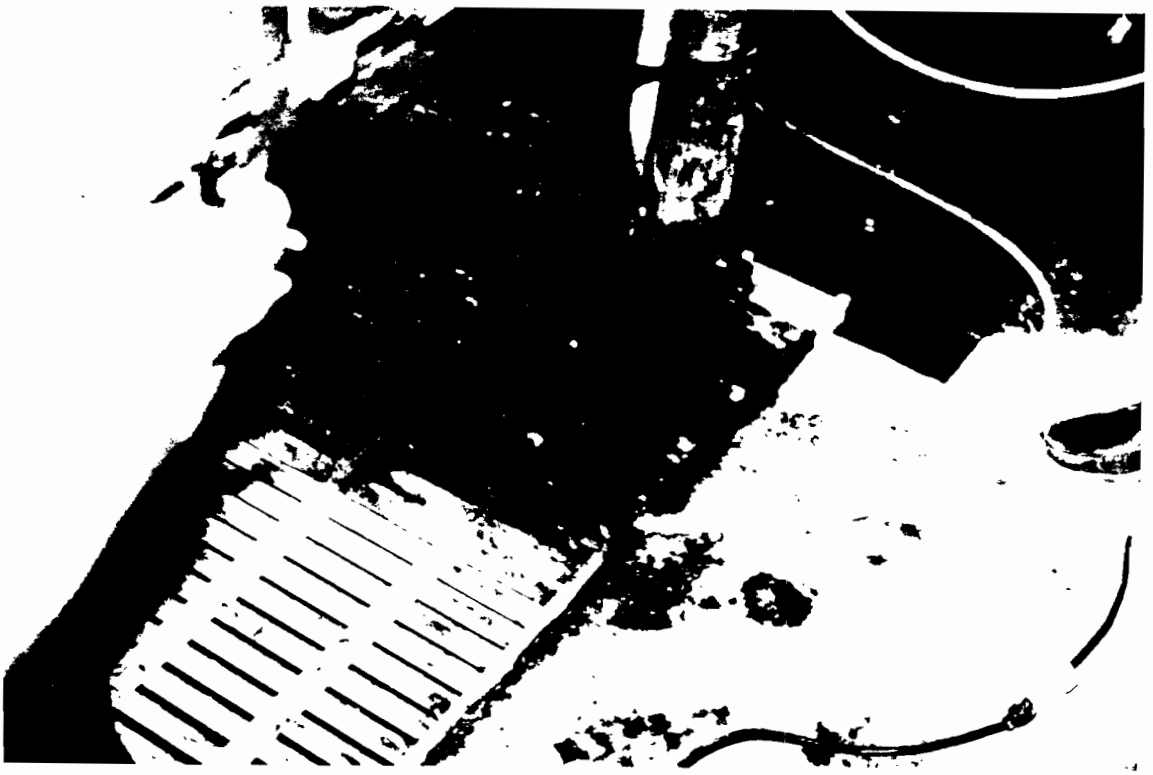


12.1 The Degassing Tank is used to remove hydrogen gas after wastewater passes through the Electrochemical Cells (SWMU 11). Note the Clarifier (SWMU 13) in the foreground and the Cyanide Oxidation Unit (SWMU 9) in the background.

13.1 The Clarifier is the large tank in the middle of the photograph. The Degassing Tank (SWMU 12) is visible behind the Clarifier.



14.1, 15.1 The Filter Press dewaters wastewater treatment sludge and the Filter Press Hopper collects the dewatered sludge.



16.1 The Secondary Sump receives treated effluent from the Wastewater Pretreatment System prior to discharge to the POTW.

APPENDIX B

SITE INSPECTION FIELD NOTES

INDUSTRIAL SERVICE CORPORATION
ELMIRA, NEW YORK

Property of [illegible]
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This Book is manufactured of a High Grade 50% Rag Paper having a Water Resisting Surface, and is sewed with Nylon Waterproof Thread.

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Industrial Services Corporation

February 28, 1989

February 28, 1987
9:30

Sue Morgan, ISC
Craig Larson, DPRA
Barb Hendricks, DPRA
Mike Bell, ISC

introduction of process for corrective action

Began operations in May 1945
- electroplating operations for the entire life of the facility
- all on this site
- added finish to other people product
- numerous additions to original building - 6 or 7 additions

Container Storage
- now stored in a roll off container - F008 waste
- used to have an outdoor container storage area
  - > 90 days for some time

Tank - 600 gallons
- stored across Stowell Street
- pH < 1
- want to reuse the tank
- put across street empty, except for residue, filled w/ rain water & had a low pH
- tested water, but not the ground
- stored over 90 days (also drums stored over 90 days)
- was an electro plating in the facility, removed & stored across the street
- tank sat across the street for 5 or 10 yrs
- covered w/ plywood
- don't know if it ever overflowed

- may have sampled soil (DEC)

Drum Storage
- had previously
- stored waste
- area used as staging
- also EPA flagged for 90 day storage violation
- 1986 - violation of 90 days
- open stripping
  - high pH
  - nickle

Evaporation Tank - 300
- evaporating
- stripping solution in the tank already, so let it sit to evaporate
- after evaporation drummed & shipped off site
- removed, cleaned still on site
- not a SWMU

Outdoor Waste Storage Tanks
- 3 Steel outdoors - noted in 1988 & inspection
* no one has any recollection
Mike & Joe were not here then

Wastewater Treatment System
electrochemical system
all rinsewaters run into a large sump, pumped to the system
3 electrochemical cells, deposition on other metals, to clarifier
add a polymer settle metals, polymer, to filter press - from filter cake
effluent from clarifier to sump to POTW,
effluent from ~~B~~ filter to same sump
Cyanide oxidation pump to clarifier to sump prior to cells

(5)

neutralization performed in the sump

No chrome reduction separate done in electrochemical cell

Store sludge in 20yd³ roll off

installed 1984 or 1985

no spills or overflow stream to ocean

prior to this discharged directly to the POTW

Receiving Basin -

- Parts tumbler ran to a floor drain + floor drain ran to sewer
- 1987
- couple feet wide + deep
- waste would have been an acid or a cleaner
- partially cemented in since that time

(6)

Roll-off Container
- used to dump FeCO8
- used roll off for 3 or 4 years
- dedicated area
- dumps were stored near the filter press
- stored outside, covered w/ a tarp, not under a roof
- on asphalt pad

filter press hopper
- holds ~ 6 ft^3

generate approximately 25-30 tons/year of FeCO8
sent to a secure landfill

no degreasers
no waste oil

Run-off Sump - 15 gal tank
polypropylene
installed in 1988

for spills to the floor
- precaution.
must be be manually pumped to wastewater treatment system

Small basement sump
- prior to the main sump
- collects wastewater from all floor drains
- pumped to main sump

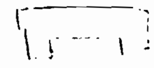
request a copy of plans -

Sumps for inspect

- ✓ (1) Container Storage
- ✓ (2) 20 yd³ roll-off
- ✓ (3) 600 gallon tank, across 16 street
- ✓ (4) Outdoor waste storage tanks
- ✓ (5) Sump main
- ✓ (6) Cyanide oxidation
- ✓ (7) electrochemical cells
- ✓ (8) clarifier
- ✓ (9) filter press
- ✓ (10) filter press hopper
- ✓ (11) post treatment sump
- ✓ (12) small basement sump
- ✓ (13) 15 gallon spill tank
- ✓ (14) receiving basin

Knowing Basin.
approximately 3 ft x 3 ft
2 or 3 feet deep
constructed in 1986 or ~~1987~~
beginning of 1987
- done very skillfully
after 1st inspection
- went here for unknown
time - at least
prior to installation
of WWTP
- poor housekeeping in the
area now, but not
associated w/ the
unit

600 gallon tank



- carbon steel
  very rusty

- now indoors
- consultants will be testing as part of closure
- covered w/ plywood when it was outside
- integrity appears okay, but very rusty

Drum Storage area
- cement floor, good condition
- stored approximately 4 drums
- Spent Stripping Solution
- F006 waste
sludge from bottom of tanks

15 gallon spill sump
(spill tank)

- poly propylene
- set into the floor
- covered w/ a formed steel grate
- approximately 18 inches diameter
- contains some liquid
- 3 feet deep
- 1/2 part of release at time of inspection
- yellow brown liquid in sump
- has not been pumped out since its installation

Small basement sump

- all floor drains from basement
- pump s/c main sump
- installed w/ LOWTP
- $2\frac{1}{2}$ ft x $2\frac{1}{2}$ ft x 5 ft
- covered w/ metal grate

Main Sump

- Holds 15,000 gallons

60 ft x 15 ft x 9 ft deep

- [illegible] waste water treatment

Secondary Sump (Post treatment

6 ft x 6 ft x 9 ft deep

discharges to sewer

System

Holding Tank Post CN destruction
- plastic in metal frame
- overfilling at time of VSI due to shut down of pump
flows and scaling
Sump
5 ft x 3 ft x 5 ft deep
- open top

Cyanide chlorination area

- open tank
5 ft tall
3 1/2 ft diameter

Filter Press & filter press
hopper
- plate & frame press
21 plates
8 feet long

hopper collects sludge
when the press is
opened

Wastewater Treatment
Flow Diagram

Electrochemical cells
- 3
- 11½ ft x 11ft diameter
- located above the main sump

from chemical cells to the degassing tank to the clarifier

degassing tank
- 6 separate chambers
- overflow

Clarifier
- 75-100 gpm

30 yds roll off
- FC080
- not full when shipped
- shipped before 90 days

Outdoor storage darkness
- took a picture of area

Clarifier - 8' wide wide
56 ~~underground~~ deg

- open on top
- baffled
~ 7000 gal

Digester
~ 7000 gal

6,000 gallon tank area

- inspected covered w/ snow & ice
- other than clear areas were not visited

end Visual Inspection
11 am

Closure meeting – further discussion
11:15

Property of _____

_____

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Industrial Services Corp

Arrived at facility at 9:30

met with Joe Morgan, Ind. Solu.
Mike
Barbara Hendricks, DPRA
Craig Larsen, DPRA

Barbara went over Introductory meeting with personnel.

Started operations in 1945 as an electroplater. Always have been located at this site. Do not manufacture any product just add finish to other

Formerly had an indoor container storage area. Now all wastes are stored in a roll-off container.

600-gallon tank being cleaned as part of closure. Was an electro polishing tank, had pH below 7, PEC decided not to test. Used at site, rinsed out, and stored across street. Unknown if ever overflowed. Stored at least 5-years.

Drum Storage
found in violation approximately 1986. Drum storage area listed in Part A was never built. Stored spent metal strip (high pH).

Evaporation tank - 300 gallon
- tank used to evaporate stripping sol'n, tank used to evaporate stripper - Part of Production

Cyanide Waste tank: 4000 to 500 gallon; facility personnel unaware of tank. Also unaware of any other tanks onsite as part of "waste storage" may have been empty tanks (inactive) stored outdoors and not rinsed.

Wastewater Treatment

Electrochemical system. All rinse waters run into sump. Pumped into 3 electrochemical cells for precipitation of metals. Runs to clarifier to settle. Runs into filter press (generates dry cake, F008 disposed). Effluent from press goes to sump. Has organic destruction unit and

pH control. Discharges to POTW. Installed 1984 or 1985. Prior to this time discharged directly to POTW.

Receiving Basin (Concrete Sump) had a parts tumbler which ran into floor drain and discharged directly to sewer. Would have accepted acid or a soap cleaner.

Drums used prior to roll-off used drums. Drums were located where filter press is. Used roll-off for 3 or 4 years.

75 gal tank is a trapper which sludge from WWTP

About 25 to 30 tons of FOG generated per year and shipped off-site.

No degreasing or waste oils.

15-gallon tank (polypropylene) installed to collect any spills. Hand piped from a drain and manually pumped out

Have secondary sump which discharges to main sump prior to WWTP, collects from floor drains

SWMUs

- 1 acre drum storage area
- 600-gallon tank storage
- Inactive tank storage area
- Runoff drum
- WWTP
  - sumps (3)
  - electrochemical cells (3)
  - filter press
  - hopper
  - UV destruction area
  - clarifier
  - ~~15~~ gallon spill tank
- 15 gallon spill tank

P-1 Former location of receiving basin from tumbler, cemented in ~~early~~ late 1986 approx 3 feet deep, 2x4 feet. No evidence of release

P-2 600- gallon tank formerly stored in parking lot. Approximately 3 feet deep, 3 feet wide and 15 feet long. corroded inside no evidence of failure

P-3 Former location of drum staging. Approx 4 drums were in this area no evidence of release (N. strip stored in this area (FLOR))

P-4 15 gallon sump.

P-5 Basement floor drain sump installed 1982. Approx 5 feet deep, 2 feet by 3 feet. waste hand pumped to grade

P-6 - main sump holds 1500 gallons extends under unit, approx 9 feet deep, 6 feet by 15 feet. Front end of unit

P-7 secondary sump discharges to POTW approx 9 feet deep, 6 fet by 8 feet.

P-8 CN distruction unit completely enclosed unit

P-9 holding tank located to CN distruction. System tank approx 5 feet deep by 6 feet 3 feet.

P-10 Filter press and ~~chamber~~ holding bin

P-11 Photo electric cells

P-12 Clarifier

P-13 Regass tank

P-14 Rolloff tank, no evidence of release drains to slope, also area where tanks were stored leaking NW

P-15 location where 6000 gallon tank was lost N

~~tanks~~