

428SERBSF10,627

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Site Name (Subject): SUPERIOR ELECTRO FINISHES

Site ID (Document ID): NCD000006361

Document Name (DocType): Correspondence (C)

Report Segment:

Description: General Correspondence, 1985 - 1987

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Access Level: PUBLIC

Division: WASTE MANAGEMENT

Section: SUPERFUND

Program (Document Group): SERB (SERB)

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North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

10 July 1987

Mr. Jan Rogers
Superfund Unit Chief
US EPA Waste Management Division
345 Courtland Street, NE
Atlanta, GA 30365

Dear Mr. Rogers:

Subject: Superior Electro Finishes
NC D000006361
Winston-Salem, NC

On 7-7-87 I had the pleasure of meeting Bill Klutz of your unit during his North Carolina site screening visit. Please find enclosed information on the subject site, which I told Mr. Klutz I would provide you with.

Superior Electro Finishes is located in a heavily populated, inner-city area of Winston-Salem. Tanks containing metal plating solutions, and drums containing corrosive materials, oxidizers, and possibly cyanides, remain inside and around the perimeter of the building. Site access is unrestricted, and during our site visit on 7-7-87, it was noticed that the plant building had been broken into. We would like to recommend that a removal action be taken at Superior Electro Finishes, based on the apparent threat that this site poses to public health and the environment.

Thank you for assisting us in dealing with this site. Please contact Lee Crosby or me at (919) 733-2801 for additional information.

Sincerely,

D. Mark Durway
D. Mark Durway, Geologist
NC CERCLA Unit

Enclosure



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Division of Health Services
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James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

20 December 1985

Ms. Denise Bland
EPA NC CERCLA Project Officer
Air and Hazardous Material Division
345 Courtland Street, N.E.
Atlanta, GA 30365

SUBJECT: Preliminary Assessment Report
Superior Electro Finishes NC D000006361
115 East Polo Road
Winston-Salem, NC

Dear Ms. Bland:

Enclosed please find the Preliminary Assessment report for the subject site. This priority is based on review of available data.

Superior Electro Finishes operated from about 1970 to 1981 as an electroplater, and appears to have ceased operation without going through proper closure procedures. Waste types generated on-site include electroplating wastewater sludge (F006).

Amos Pope, now of Allied Tool Machine Co. in Kernersville, NC, is the owner and past operator of Superior. He reported in a telephone conversation that in 1981, the city of Winston-Salem abruptly discontinued the Superior water supply. Based on Mr Pope's comments, it appeared that this action was taken in response to the city's displeasure with the quality of wastewater Superior had been discharging to the city sewer. Mr. Pope said that when the water was discontinued that he immediately terminated operations; the plant has been padlocked ever since.

Mr. Pope stated that tanks at the plant still probably contain electroplating sludge. He also recollected that sulfuric acid and zinc cyanide might still be stored on-site in a storage room. He claimed, however, that waste has never been disposed on-site, and knew of no releases which had occurred.

Ms. Denise Bland
Page 2

It is believed that this abandoned facility has not been inspected in at least three years, and that it poses a potential threat to health and the environment. Priority assigned is Medium.

References used in completing this Preliminary Assessment are as follows:

1. Amos Pope, owner of the Superior Electro Finishes plant site, currently at Allied Tool Machine Co., Kernersville, NC, personal communication, 12-6-85.

On 19 December 1985, this Preliminary Assessment was reviewed by CERCLA Unit personnel and by the following representatives from the North Carolina Department of Natural Resources and Community Development, Division of Environmental Management: Fay Sweat, Groundwater Section and Glen Ross, Air Quality Section.

If you have any questions, please call me at (919) 733-2178.

Sincerely,

D. Mark Durway

D. Mark Durway, Geologist
Solid and Hazardous Waste Management Branch
Environmental Health Section

DMD/tb/0175b



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NC	D000006361

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Superior Electro Finishes		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 115 East Polo Road			
03 CITY Winston-Salem	04 STATE NC	05 ZIP CODE 27105	06 COUNTY Forsyth	07 COUNTY CODE 34	08 CONG DIST 5
09 COORDINATES LATITUDE 36° 08' 40"		LONGITUDE 80° 15' 30"			

10 DIRECTIONS TO SITE (Starting from nearest public road)
Travel into Winston-Salem on I-40 West; go north on Memorial Expressway for approximately 2 miles; turn left onto Indiana Ave. and travel approx. 1.8 miles to Polo Road, which dead ends into Indiana Ave. Superior Electro Finishes is located near the intersection of

III. RESPONSIBLE PARTIES Indiana Ave. and Polo Rd., which is about 3 miles north of downtown Winston-Salem.

01 OWNER (if known) Amos Pope at Allied Tool Machine Co.		02 STREET (Business, mailing, residential) 115 Corum Street			
03 CITY Kernersville	04 STATE NC	05 ZIP CODE 27284	06 TELEPHONE NUMBER 919 993-2131		
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ()		

13 TYPE OF OWNERSHIP (Check one)
 A. PRIVATE B. FEDERAL: _____ (Agency name) C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER: _____ (Specify) G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
 A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR B. UNCONTROLLED WASTE SITE (RCRA 103(d)) DATE RECEIVED: ____/____/____ MONTH DAY YEAR C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY (Check all that apply)
 YES DATE ____/____/____ MONTH DAY YEAR A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR
 NO E. LOCAL HEALTH OFFICIAL F. OTHER: _____ (Specify)
 CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one) 03 YEARS OF OPERATION
 A. ACTIVE B. INACTIVE C. UNKNOWN UNKNOWN
 BEGINNING YEAR: 1970 ENDING YEAR: 1981

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
 According to Amos Pope, Superior Electro Finishes (SEF) was an electroplater. Waste types and chemicals believed to be on-site at present include F006 wastewater sludge, sulfuric acid, and zinc cyanide. Mr. Pope reports that, while in operation, SEF discharged all waste to the city sewer, and claims none was disposed of or released on-site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
 In 1981, the City of Winston-Salem cut off the water supply to SEF. According to Mr. Pope, this action was taken in response to the city's displeasure with the quality of wastewater SEF had been discharging to the city sewer. Mr. Pope immediately terminated operations at SEF, and the plant has been padlocked ever since. SEF is, in essence, an abandoned

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
 A. HIGH (Inspection required promptly) B. MEDIUM (Inspection required) C. LOW (Inspect on time available basis) D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Amos Pope	02 OF (Agency/Organization) Allied Tool Machine Co. - Kernersville, NC		03 TELEPHONE NUMBER 919 993-2131	
04 PERSON RESPONSIBLE FOR ASSESSMENT D. Mark Durway/Lee Crosby	05 AGENCY NC DHR/DHS	06 ORGANIZATION SHW Mgmt. Br.	07 TELEPHONE NUMBER 919 733-2178	08 DATE 12/06/85 MONTH DAY YEAR

hazardous waste site, and is believed to pose a potential threat to human health and the environment. Access into building is unrestricted.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I- IDENTIFICATION
01 STATE NC 02 SITE NUMBER D000006361

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION
Zinc cyanide and sulfuric acid believed to be stored on site. These chemicals would react to form cyanide gas if they were to come in contact with one another.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 E. DIRECT CONTACT 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

Facility is padlocked. No known hazards outside of enclosed areas.
~~Access into parts of building is unrestricted.~~

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: Site approx. 0.5 04 NARRATIVE DESCRIPTION
(Acres) acres

No known on-site disposal, though spills have potentially occurred.

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: N/A 04 NARRATIVE DESCRIPTION

Local buildings are connected to city water.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED: N/A 04 NARRATIVE DESCRIPTION

Plant is closed.

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

No known complaints from public regarding hazards which site potentially poses.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

E. IDENTIFICATION
01 STATE 02 SITE NUMBER
NC D000006361

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J. DAMAGE TO FLORA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
Unknown.

01 K. DAMAGE TO FAUNA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION (include name(s) of species)
Unknown.

01 L. CONTAMINATION OF FOOD CHAIN 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
Unknown.

01 M. UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Site is essentially abandoned. Type of containment of wastes/chemicals is unknown.

01 N. DAMAGE TO OFFSITE PROPERTY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
Unknown.

01 O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
It is believed that the City of Winston-Salem was dissatisfied with the quality of wastewater which SEF discharged into the city sewer.

01 P. ILLEGAL/UNAUTHORIZED DUMPING 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
Unknown.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Unknown.

III. TOTAL POPULATION POTENTIALLY AFFECTED: Unknown

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

As previously cited.

5-20-86

Superior Electro Finishes

115 E. Polo Rd.

Winston-Salem NC

full
fiber
drums
in
materialnine
plastic
40 gal
drums
visible
through
cracks in
wood

120' x 60'

~~120' x 60'~~ bldg

tank

airway

garage
entranceventing
fan opening?

airway

vented
windowplating
areas

OFFICE

Polo Rd.

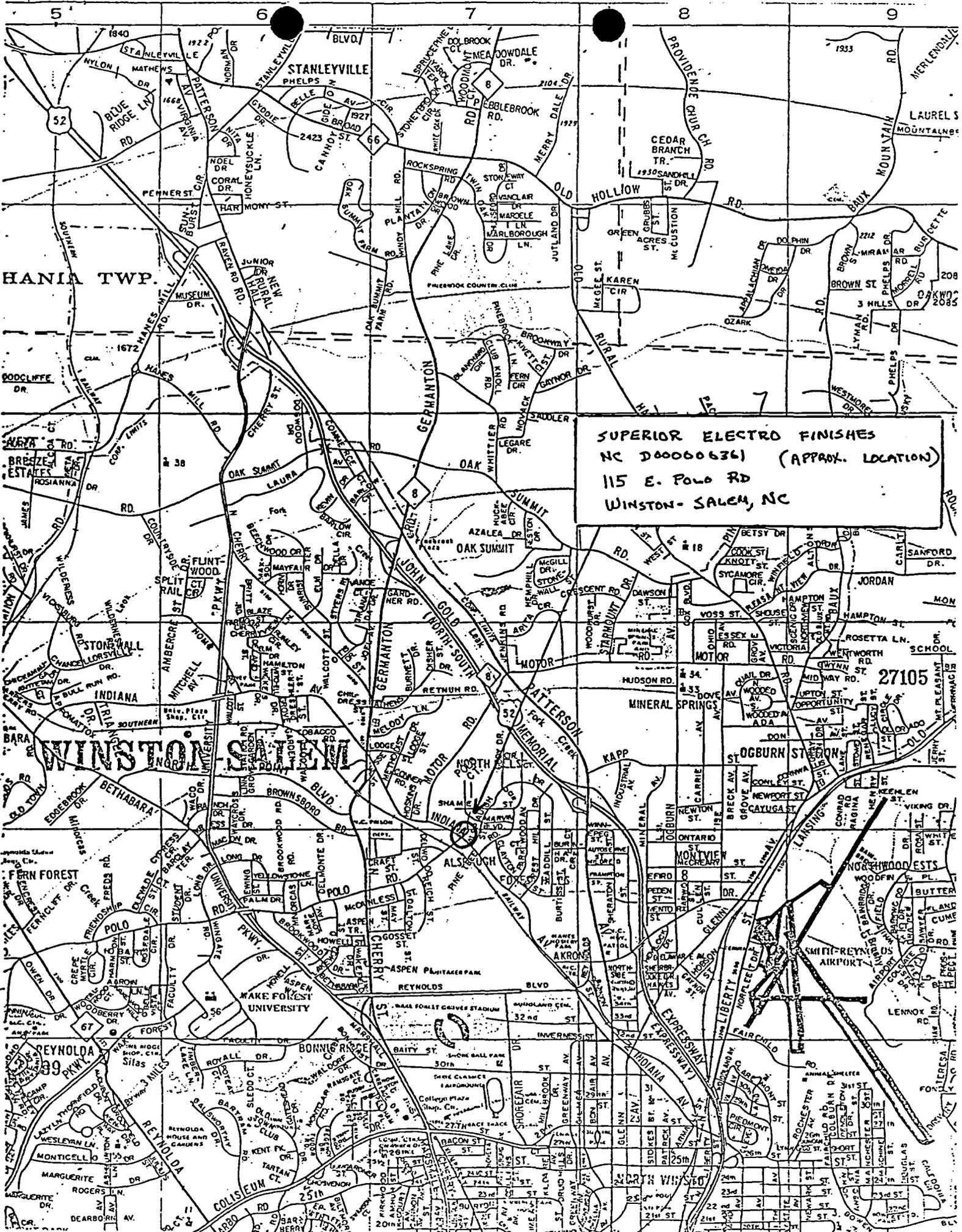




SUPERIOR ELECTRO FINISHES / NC D00006361
 115 E. POLO ST.
 WINSTON - SALEM, NC
 (APPROX. LOCATION)

USGS 7.5'
 RURAL HALL, NC
 1951/1971 P.R.

USGS 7.5'
 WALKERTOWN, NC
 1951/1971 P.R.



SUPERIOR ELECTRO FINISHES
NC D00006361 (APPROX. LOCATION)
115 E. POLO RD
WINSTON-SALEM, NC

HANIA TWP.

GERMANTON

WINSTON-SALEM

27105

SMITH-REYNOLDS AIRPORT

REYNOLDA

COLISEUM

AVAKROD

INDIANA

ROCHESTER

TO: File
FROM: D. Mark Durway
DATE: 12-11-85
RE: Superior Electro Finishes/NC D000006361

On 12-6-85, I spoke to Amos Pope at Allied Tool Machine Co. Mr. Pope is owner of the now bankrupt Superior Electro Finishes (SEF) in Winston-Salem, NC.

Mr. Pope's tool company is located in Kernersville, NC. He can be reached at (919) 993-2131.

Mr. Pope said that the city discontinued his water supply at SEF, and made statements suggesting that the reason for this was that the city had complaints about the quality of wastewater SEF had been discharging to the city sewer.

Mr. Pope closed SEF immediately after the water was shut off. The plant has been padlocked for at least three years. Inside are tanks which probably contain sludge, according to Mr. Pope. The facility also has a supply of sulfuric acid and zinc cyanide, which remain in the building, according to Mr. Pope.

Mr. Pope said that SEF commenced operation in about 1970, and that the plant is situated on a 0.5 acre property.

DMD/tb/0175b

5-20-86

Superior Electro Finishing

1000 St. Winston Salem

- windshield, walk-up visit

6:30 PM

site lies beside RR

tracks

- building has vent windows open + holes in front windows

- one tank, rectangular - filled with liquid outside bldg ~ 10' x 4' x 4'

- could see black plastic drums inside bldg. Three hole in exterior wall.

weather - cloudy, drizzling
~ 60°F

some fiber drums with
rust + whitish-gray solid.

material in yard, may be
dried sludge or ash.

can see tanks + equipment
inside building.

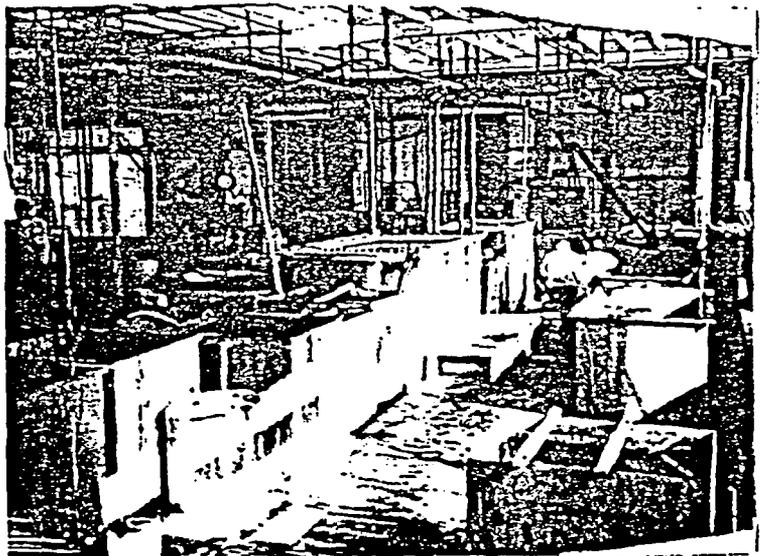


Figure 1 Chrome Plating Tank

Figure 2 Chrome Plating Tank



Figure 3 Center view of room from the back showing exhaust fan in back wall.

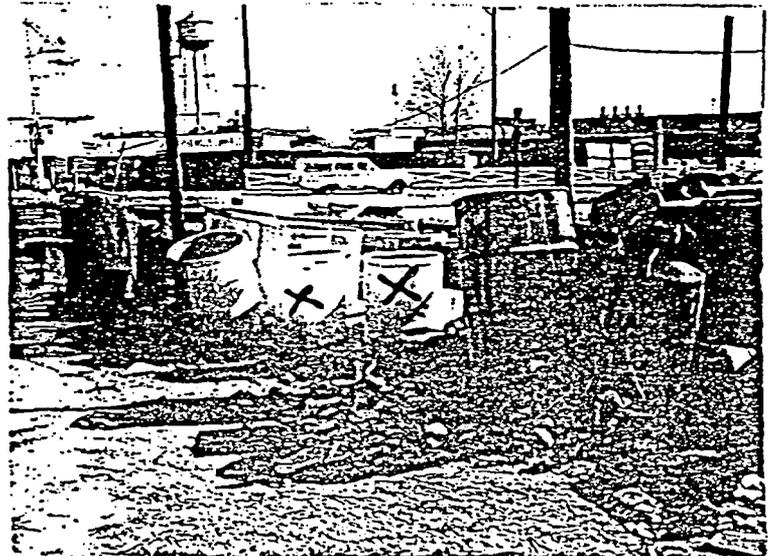
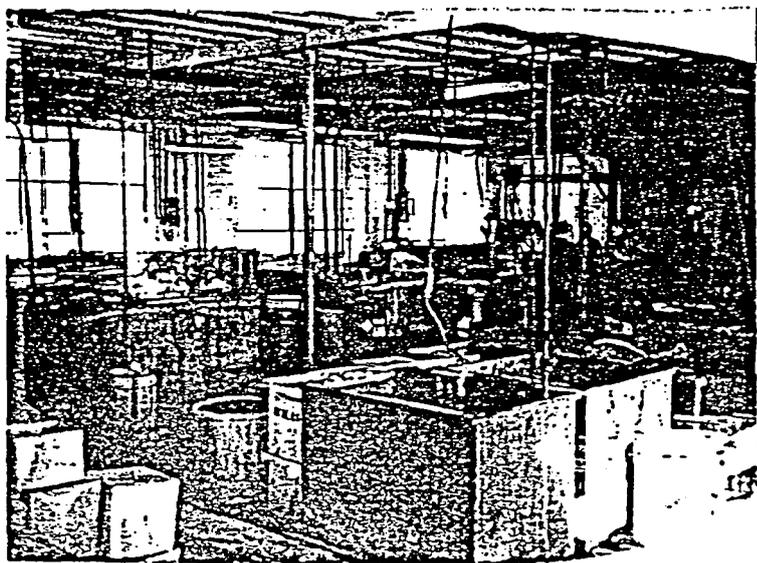
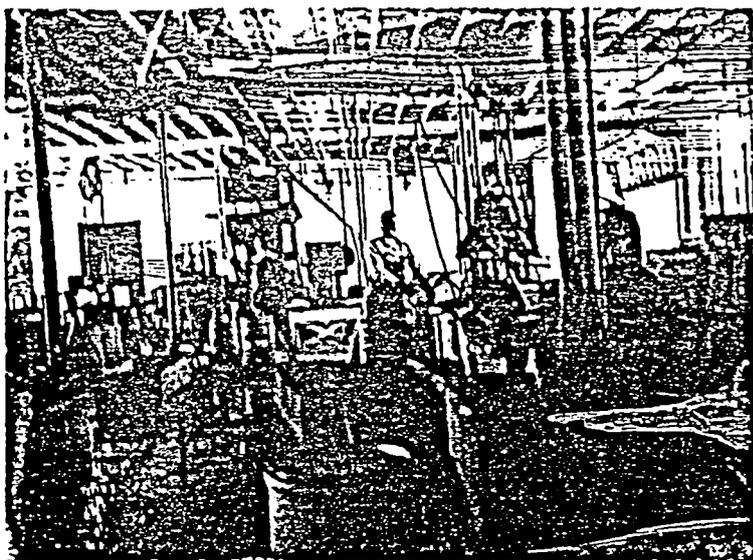


Figure 4 Cocks containing sulfuric and nitric acids on side of the plating room.



*John
Ples handle &
let Ericson know
date your visit
(on whatever
please)*



RECEIVED
OCT 28 1965
RAD. & OCCUPATIONAL
HEALTH INSPECTION
PROGRAM

FORSYTH COUNTY HEALTH DEPARTMENT

P. O. BOX 2975 PR - 3-7811
WINSTON-SALEM, N. C. 27102

October 25, 1965

*Refer copy of report
to Dan Johnston, S.E.P.*

Dr. William L. Wilson, Chief
Occupational Health Section
Epidemiology Division
State Board of Health
Raleigh, N. C.

Dear Dr. Wilson:

On October 22, 1965 this department received two complaints that fumes from the Superior Electro Finishes, Inc., 115 East Polo Road, Winston-Salem, N. C. were causing crops and trees to die in the adjacent area and were irritating eyes and noses of people living near the plant.

An investigation revealed that this company on occasion dips several baskets of steel clock parts into a crock of concentrated nitric and sulphuric acid to remove burrs from these parts. During the operation a cloud of orange fumes are given off. The process caused so much trouble inside the plant that it has been moved outside the plant. The process is carried out by an employee wearing rubber gloves, but no face mask.

Mr. Richard D. Nichols, Manager, stated that although they had been de-burring these parts for approximately two years, this was the first complaint from neighbors. On October 22, 1965, the day of the complaint, the wind was blowing toward the houses from which complaints were received. The humidity was also high. Mr. Nichols also stated that his employees disliked carrying out this process because of the fumes.

After surveying the situation, I believe the following problems exist:

1. A severe safety hazard is created by leaving crocks containing strong acid unattended in the unfenced yard of this plant. There is a distinct possibility that children might be seriously injured while playing in the area.

2. It would seem that there is a possibility that the fumes coming from this process may injure an unprotected worker.
3. There is a possibility that when the wind and weather conditions are right that these fumes may bother people in the neighborhood.

Since it seems that your office in recommending the proper procedures for carrying out this process to protect the employees may also eliminate the other problems mentioned, I suggested that Mr. Nichols might avail himself of the services of your section.

Mr. Nichols asked that I write you and request a visit. Since he appears to be a young progressive business man, I am sure he would welcome your checking his whole plant for industrial health hazards.

We would appreciate it if you or one of your men would make plans to visit this plant. We would like to have one of our men accompany you to the plant if possible.

Very truly yours,

BUREAU OF ENVIRONMENTAL HEALTH

Martin W. Ericson
Martin W. Ericson, Chief

MWE:gb

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

November 5, 1965

Mr. Martin W. Ericson, Chief
Bureau of Environmental Health
Forsyth County Health Department
P. O. Box 2975
Winston-Salem, North Carolina

Dear Mr. Ericson:

Your request to Doctor Wilson to survey Superior Electro Finishes, Inc. has been referred to me for answer.

I think the three problems you have described are not only possible, but probable, and I am planning for one of us to visit the plant as soon as our schedule permits.

I will give you a call when a date is set so that we can be sure that you or one of your staff can accompany us.

Thank you for bringing this to our attention, and I hope we can find acceptable answers to Mr. Nichols' problems.

Sincerely,

John C. Lumsden
Chief Industrial Hygiene Engineer
Occupational Health Section

JCL:fms

cc: Doctor W. L. Wilson

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

Yes

November 5, 1965

(W)

Mr. Martin W. Ericson, Chief
Bureau of Environmental Health
Forsyth County Health Department
P. O. Box 2975
Winston-Salem, North Carolina

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Sincerely,

John C. Lumsden
Chief Industrial Hygiene Engineer
Occupational Health Section

JCL:fms

cc: Doctor W. L. Wilson ✓

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA

(W)

TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.
Address 115 East Polo Road, Winston-Salem, NC Location Same
Visit made by Robert E. May, Industrial Hygiene Engineer Date November 11, 1965
Persons Contacted Mr. Richard D. Nichols, Plant Manager
Reasons for visit Request from The Forsyth County Health Department
Product Mfg. Electroplating No. Employees 6
Plant Medical Services _____

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Richard D. Nichols
Allied Tool and Machine Co., Kernersville, Attn: Mr. Linsey Walker, General Mgr.
Forsyth County Health Department, Attn: Dr. James A. Finger
REPORT: Dr. W. L. Wilson, Chief, Occupational Health Section ✓ Central Files (2)
Mr. Dan Johnston, Sanitary Engineering Division, Department of Labor (2)

On Thursday, November 11, I accompanied Mr. Martin Ericson and Mr. T. D. Flack of the Forsyth County Health Department to the Superior Electro Finishes Company. The visit was requested by the Forsyth County Health Department because of complaints received that fumes from the plant were damaging the vegetation in the area and irritating the eyes and noses of people living near the plant.

The Superior Electro Finishes plant is located in a small one-story building on East Polo Road. It is owned by Allied Tool and Machine Company of Kernersville, North Carolina and engages in the electroplating of a variety of small metal parts with zinc, copper, nickle, chrome, gold, silver, cadmium, brass, and abaloy. Most of the electroplating operations are carried out in one room which is approximately 50 feet wide and 75 to 100 feet long. The room houses four parallel rows of cleaning, washing, and plating tanks in the center and several tanks at each end.

One particular acid "de-burring" operation was reported to be responsible for the complaints received. This operation consists of dipping baskets of steel clock parts in a solution of sulfuric and nitric acids, followed by a water rinse.* During the de-burring operation, a reddish-brown gas, probably nitrogen dioxide, is evolved. It is necessary to de-burr clock parts for about 2 hours on one day out of every month. Because of the irritating fumes evolved, the de-burring operation is done outside, back of the building. It is understandable that the neighbors might complain upon seeing a brown, irritating gas drifting across their yards, but the evolution of these fumes for

*No parts were being de-burred on the day of this visit.

only two hours a month can hardly be responsible for damaging vegetation or causing an unreasonable nuisance to the people living near the plant.

None of the plating, washing, or cleaning tanks inside of the plant are locally exhaust ventilated. The fumes evolved are dispersed into the workroom causing a mixture of fumes to persist in the workroom. Two propeller-type fans located in the room walls are used to exhaust the fumes to the outside. One of the fans was not running during this visit. The other fan was directed into a storage room adjoining the building and was, therefore, probably not exhausting much air. Fresh air entered the room through windows in the side walls. It is possible that the continual exhausting of the fumes from the electroplating room could be the real cause of the complaints of eye and nose irritation from the people living near the plant.

Several of the chemicals which are used by the plant are stored behind and beside the plant building. These chemicals include sulfuric acid, muriatic acid, nitric acid, aqua ammonia, and the sulfuric-nitric acid de-burring solution. Access to these chemicals is not restricted in any way. The containers are not locked or enclosed by a fence. This storage situation could present a safety hazard to persons who live near the plant and who are not aware of the corrosive properties of the chemicals.

During this visit, air samples were taken to determine the concentrations of chromic acid mist near the chrome plating tank and hydrogen cyanide above the copper plating tank. Results indicate chromic acid mist concentrations above the recommended threshold limit value in the area around the chrome plating tank. No hydrogen cyanide was detected above the copper plating tank.

Recommendations:

1. An exhaust ventilation system should be installed which will provide local exhaust ventilation for each plating, anodizing, or dip tank which evolves or is likely to evolve toxic mists or gases. Mists or gases collected by the system should be exhausted through a stack above the plant building.
2. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel.

REM:fms *REM*
November 16, 1965

STATE BOARD OF HEALTH
 OCCUPATIONAL HEALTH SECTION
 ANALYTICAL RESULTS

Sample Number	DESCRIPTION	Results	Remarks
	Superior Electro Finishes, Inc. Winston-Salem, N. C.		
	<u>Chromic Acid Mist</u>		
1	In the aisle about 3 feet from the chrome plating tank.	1.34	mg/m ³
2	In the middle of the room in front of the chrome plating tank at a distance of about 20 feet from the tank.	0.35	mg/m ³
	<u>Hydrogen Cyanide</u>		
1	Above the solution in the copper plating tank.	0	mg/m ³
2	Same as 1.	0	mg/m ³
	NOTE: The threshold limit values for Hydrogen Cyanide and Chromic Acid mist recommended by the American Conference of Governmental Industrial Hygienists for an 8 hour work day are as follows:		
	Hydrogen Cyanide - 11 mg/m ³ Chromic Acid mist - 0.1 mg/m ³		
	REM: fms REM November 16, 1965		



NORTH CAROLINA

STATE BOARD OF HEALTH

RALEIGH 27602

January 12, 1966

J. W. R. NORTON, M.D., M.P.H.
STATE HEALTH DIRECTOR
AND
SECRETARY-TREASURER

JACOB KOOMEN, JR., M.D., M.P.H.
ASSISTANT STATE HEALTH DIRECTOR

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LENOX D. BAKER, M.D., Pres. DURHAM
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SAMUEL G. KOONCE, PH.G. CHADBOURN
OSCAR S. GOODWIN, M.D. APEX
A. P. CLINE, SR., D.D.S. CANTON
JOSEPH S. HIATT, JR., M.D. SOUTHERN PINES
J. M. LACKEY RT. 2, HIDDENITE
HOWARD PAUL STEIGER, M.D., CHARLOTTE

MEMORANDUM

TO : The File for Informational Purposes

FROM : *REM*
Robert E. May, Industrial Hygiene Engineer
Occupational Health Protection Section

SUBJECT : Superior Electro Finishes
Winston-Salem, N. C.

I received a telephone call from Mr. J. R. Brandon of the N. C. Department of Labor today regarding the Superior Electro Finishes Company in Winston-Salem.

Mr. Brandon stated that a representative of the Department of Labor visited the subject company on January 4 and discussed the recommendations for improvement given in my report dated November 11, 1965 with Mr. Richard D. Nichols, Plant Manager. Mr. Nichols stated that a copy of my report had also been sent to his superior, Mr. Lindsey Walker, General Manager of the Allied Tool and Machine Company, and that Mr. Walker had advised him that no action would be taken on the recommendations.

REM:fms

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA

TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.

Address 115 E. Polo Rd., Winston-Salem, NC Location Winston-Salem, N. C.

Visit made by Robert E. May, Industrial Hygiene Engineer Date March 9, 1966

Persons Contacted Mr. Jim Garst, Manager

Reasons for visit Follow-up on A Previous Visit.

Product Mfg. Electroplating No. Employees

Plant Medical Services

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Jim Garst, Manager
Allied Tool and Machine Co., Kernersville, Attn: Mr. Linsey Walker, Gen. Mgr.
Forsyth County Health Dept., Attn: Dr. James A. Finger

REPORT: Dr. W. L. Wilson, Chief, Occupational Health & Radiation Protection Section ✓
Department of Labor (2) Central Files (2)

This visit to the Superior Electro Finishes Company was made as a follow-up of a previous visit on November 11, 1965. During this visit, I talked with the company's new manager, Mr. Jim Garst. The weather on this day was characterized by clear skies, unseasonably high temperatures and low humidity.

Activities at this company were found to be basically the same as during the previous visit. No action had been taken on the recommendations made at that time.

During this visit, three samples were taken near the chrome plating tank. Results indicate that the concentration of chromic acid mist in the vicinity of this tank is above the recommended threshold limit value of 0.1 milligram per cubic meter of air. Mr. Garst stated that he plans to eliminate the evolution of chromic acid mist by adding a product called "Zero Mist" to the solution in the tank.

Visual inspection of the area outside of the building revealed that the acid "de-burring" operation had not been enclosed or otherwise restricted as was recommended after the November 11 visit. The open crocks containing sulfuric acid and nitric acid were still present and easily accessible to anyone who might venture near the plant.

RHM:fms *REM*
March 24, 1966

Recommendations:

1. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel (November 11, 1965).
2. Superior Electro Finishes, Inc. should be visited again in about one month to determine if the addition of "Zero Mist" to the chrome plating tank adequately controls the evolution of chromic acid mist.

REM: fms REM
March 24, 1966

STATE BOARD OF HEALTH

OCCUPATIONAL HEALTH SECTION

ANALYTICAL RESULTS

Sample Number	DESCRIPTION	Results	Remarks
	Superior Electro Finishes, Inc. Winston-Salem, N. C. March 9, 1966		
	<p style="text-align: center;"><u>Chromic Acid Mist</u></p> <p>1 In the aisle about 6 feet from the chrome plating tank.</p> <p>2 In the aisle about 18 feet from the chrome plating tank.</p> <p>3 In the middle of the room in front of the chrome plating tank, about 20 feet from the tank.</p> <p>NOTE: The threshold limit value for chromic acid mist recommended by the American Conference of Governmental Industrial Hygienists for an 8-hour work day is 0.1 milligrams per cubic meter of air.</p> <p>REM: fms REM March 24, 1966</p>	<p>0.2</p> <p>0.1</p> <p>0.05</p>	<p>mg/m³</p> <p>mg/m³</p> <p>mg/m³</p>



NORTH CAROLINA
STATE BOARD OF HEALTH

RALEIGH 27602

June 10, 1966

JACOB KOOMEN; M.D., M.P.H.
ACTING STATE HEALTH DIRECTOR
AND
SECRETARY-TREASURER

W. BURNS JONES, JR., M.D., M.P.H.
ACTING ASSISTANT STATE HEALTH DIRECTOR

MEMBERS

LENOX D. BAKER, M.D., PRES. DURHAM
JAMES S. RAPER, M.D., VICE-PRES. ASHEVILLE
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SAMUEL G. KOONCE, PH.G. CHADBOURN
OSCAR S. GOODWIN, M.D., APEX
A. P. CLINE, Sr., D.D.S. CANTON
JOSEPH S. HIATT, Jr., M.D. SOUTHERN PINES
J. M. LACKEY RT. 2, HIDDENITE
HOWARD PAUL STEIGER, M.D., CHARLOTTE

MEMORANDUM

TO : The File for Informational Purposes

FROM : Robert E. May
Industrial Hygiene Engineer

SUBJECT : Superior Electro Finishes, Inc.
Winston-Salem, North Carolina

The subject company was visited on May 24, 1966 as a follow-up of a previous visit made on March 9, 1966. The primary purpose of this visit was to evaluate, by atmospheric sampling for chromic acid mist, the effectiveness of "Zero Mist" as a means of controlling the evolution of mist from the chrome plating tank. Because the D. C. Rheostat for the chrome plating tank was out for repairs, no chrome plating was being done. According to Mr. Jim Garst, Plant Manager, chrome plating should be resumed by the last week in June. It will, therefore, be necessary to return to the subject company at that time.

Mr. Garst called my attention to the fact that the trash in back of the building had been removed. Tops had been placed on all of the acid containing carboys. Mr. Garst stated that a drum is placed upside-down over the crock containing the nitric-sulfuric acid dip after working hours. I assume that he was referring to a large polyethylene drum which was beside the crock. While this does not prevent entry into the crock, it does make the acid dip somewhat inaccessible.

REM:fms *REM*

cc: Department of Labor (2)

724-3160

W

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA
TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.

Address 115 E. Polo Rd., Winston-Salem, NC Location Winston-Salem, N. C.

Visit made by Robert E. May, Industrial Hygiene Engineer Date June 28, 1966
J. R. Brandon, Department of Labor

Persons Contacted Mr. E. I. Nichols

Reasons for visit Follow-up on March 9, 1966 visit.

Product Mfg. Electroplating No. Employees -

Plant Medical Services -

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Fred E. Lewis, Jr., Plant Mgr.
Dr. W. L. Wilson, Chief, Occupational Health & Radiation Protection Section ✓
Allied Tool & Machine Co., Kernersville, Attn: Mr. Lindsey Walker, President
REPORT: Forsyth County Health Dept., Attn: Mr. James A. Finger, Health Director
Department of Labor (2) Central Files (2)

This was a second follow-up of a previous visit made on March 9. The primary purpose of this visit was to evaluate, by atmospheric sampling for chromic acid mist, the effectiveness of "Zero Mist" as a means of controlling the evolution of mist from the chrome plating tank. Because the D. C. Rectifier for the chrome plating tank was still out for repairs, no chrome plating was being done. According to Mr. E. I. Nichols, it is not possible to say exactly when the D. C. Rectifier will be repaired and returned, but it is expected to be in the near future.

On this day tin, nickel, zinc, brass and copper were being plated.

During this visit, it was learned that Mr. Jim Garst, formerly plant manager, is no longer associated with Superior Electro Finishes, Inc. The company's new plant manager is Mr. Fred E. Lewis, Jr.

On the afternoon of this same day, a visit was made to the office of Mr. Lindsey Walker at the Allied Tool and Machine Company in Kernersville. Mr. Walker is the President of Allied Tool and Machine Company and Vice-President of Superior Electro Finishes, Inc. The general health and safety situation at Superior Electro Finishes was discussed with Mr. Walker. With regard to a previous recommendation that the dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution and the other containers of acid, should be stored in such a way as to be inaccessible to all persons other than plant personnel, Mr. Walker stated that a fenced-in area will be built behind the plant and that these hazardous chemicals will be stored within it.

REM:fms *REM*
July 1, 1966

Recommendations:

1. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel (November 11, 1965).
2. Superior Electro Finishes, Inc. should be visited again when the chrome plating operation has been resumed to determine if the addition of "Zero Mist" to the solution adequately controls the evolution of chromic acid mist.

REM:fms
July 1, 1966

REM

LeBob

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

August 22, 1966

MEMORANDUM

TO : John C. Lumsden
Chief Industrial Hygiene Engineer
Occupational Health & Radiation Protection Section

FROM : Robert E. May *REM*
Industrial Hygiene Engineer

SUBJECT : Superior Electro Finishes, Inc.

On August 12 I talked by telephone with Mr. E. I. Nichols, of the subject company to obtain a progress report on the recommendations made in the report of my June 28, 1966 visit.

According to Mr. Nichols, a fence has been built around the chemicals storage area in back of the company's building as was recommended. The chrome plating operation has not yet been resumed because the D. C. Rectifier is still out for repairs.

REM:mas

cc: Mr. J. R. Brandon
Department of Labor

NORTH CAROLINA STATE BOARD OF HEALTH

LABORATORY DIVISION, P. O. BOX 711

RALEIGH, NORTH CAROLINA

Chemical Analysis for Water

REPORT TO: Robert E. May (Name and Title)

ADDRESS: Occupational Health Section

State Board of Health, Raleigh, N. C.

MARKED (name of supply): Superior Electro Finishes Inc.

COUNTY: _____

SOURCE: Well Tap () Plant Tap () Distribution Tap () Other _____

TREATMENT: None () Chlorinated () Fluoridated () Filtered ()

Alum () Lime () Soda Ash () Ammonia () Iron Removal ()

Softening Plant ()

COLLECTED BY: REM DATE _____ TIME _____

Laboratory No.	Received	Analyzed	Reported
	3-14-66		3-14-66

Analysis -- Results in Parts Per Million

	Radio-activity	Acid #24	1260	0 ml of 0.02 N Na OH
ABS				
Alkalinity (CaCO ₃)	Total Hardness (CaCO ₃)	#34	1261	0 ml of 0.02 N Na OH
Chlorides (Cl)		Blank #162	1262	0 ml of 0.02 N Na OH
Color		Base #3	1263	0.17 ml 0.02 N H ₂ SO ₄
Iron (Fe)		Blank #26	1264	0
Manganese (Mn)				3.4 mg/l. 3 NFO
pH				

Remarks: *These results appear to be slightly unreliable and were not included in the report on this subject*

LYNN G. MADDRY, Ph. D., Acting Director REPORTED BY MOSEMAN

REM

October 20, 1988

TO: GROVER NICHOLSON

FROM: D. MARK DURWAY *DMD*.

RE: SUPERIOR ELECTRO FINISHES (NCD 000006361), WINSTON-SALEM, NC

Sam Kennedy of TAT is involved in the on-going Superior Electro Finishes cleanup in Winston-Salem, which is being conducted under the supervision of Bill Klutz of EPA. This morning Sam Kennedy phoned me to find out the following:

- 1) If I would be able to meet him onsite at 10:30 AM on Monday, 10-24.
- 2) Soil cleanup levels.

Kennedy indicated that soil contained the following metals levels:

Cd	1350 ppm	(total)
Cr	1315 ppm	"
Cu	1430 ppm	"
Pb	460 ppm	"
Ni	1800 ppm	"
Zn	8000 ppm	"

Pertinent telephone numbers:

Bill Klutz	404/347-3931	(EPA - Atlanta)
Sam Kennedy	404/368-2237	(Atlanta)
	919/727-9063	(near-site telephone)
	919/368-2237	(motel)

August 26, 1987

TO: Lee Crosby

FROM: D. Mark Durway DMD.

RE: Site sampling at Superior Electro Finishes (NC D000006361)

On August 18, 1987, site sampling was conducted at Superior Electro Finishes in Winston-Salem, NC. Present on-site were the following personnel:

Bill Klutz, US EPA
Sherman Woodson, Roy F. Weston Inc.
J.C. Lan, "
Lorenzo Richardson, "
Lindsay Walker, Allied Tool & Machine Co. Inc.
Mark Durway, NC S&HWMgmt

Personnel from Roy F. Weston, Inc. performed the sampling under the direction of Bill Klutz. Mr. Lindsay Walker was present on behalf of the site owner, Allied Tool and Machine Co. Inc. of Kernersville, NC.

Weston personnel collected approximately fifteen samples, most of which were taken from tanks and drums located inside the Superior Electro Finishes building. Many of the tanks and drums were leaking. Seven of these tanks contained liquids with pH values of 0, 1, 10, or 11. Zinc cyanide, chromic acid, heavy metals such as selenium and cadmium, and other chemicals were identified inside the building by Weston personnel.

During the site visit, it was observed that the drum storage area at the rear of the building had been broken into. Plastic drums, which could be seen through the wooden slats of this building during a site visit in July 1987, had been removed. According to Mr. Walker, Stratford Metal Finishing had been given permission to take the drums of chemicals for use at their facility, which is also located in Winston-Salem.

Bill Klutz has indicated that he will give Allied Tool and Chemical Co. Inc. the opportunity to clean-up their site. If Allied Tool fails to take action, then EPA will conduct the necessary remedial work.

cc. Doug Holyfield
Steve Phibbs

3/9/66

SUPERIOR ELECTRO FINISHES, Inc.



Figure 1 Chrome Plating Tank

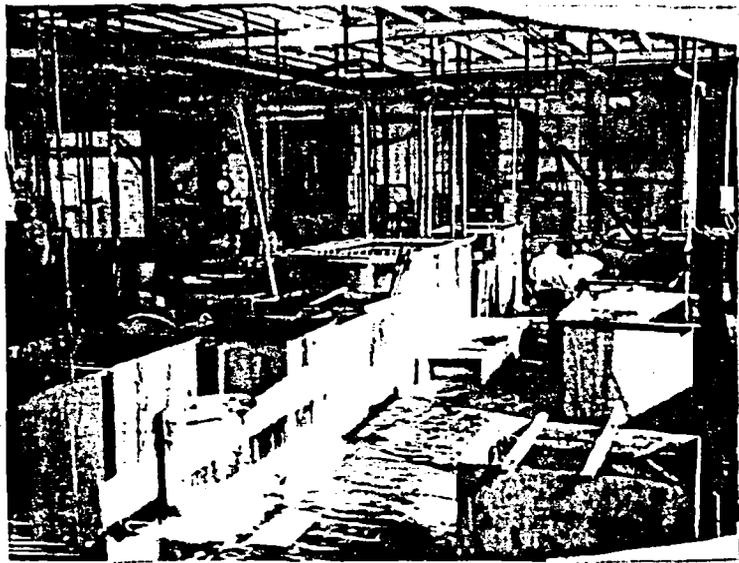


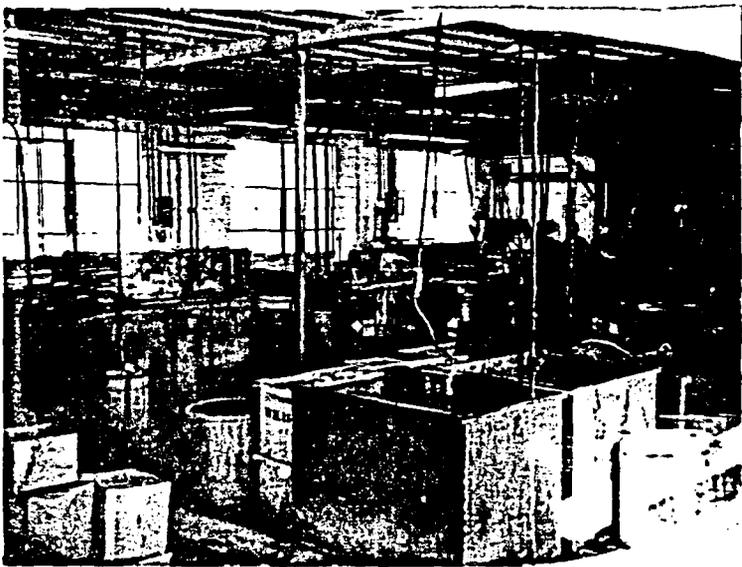
Figure 2 Chrome Plating Tank



Figure 3 Center view of room front to back showing exhaust fan in back wall.



Figure 4 Casks containing sulfuric and nitric acids outside of the plating room.





NORTH CAROLINA

STATE BOARD OF HEALTH

RALEIGH 27602

January 12, 1966

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J. W. R. NORTON, M.D., M.P.H.
STATE HEALTH DIRECTOR
AND
SECRETARY-TREASURER

JACOB KOOMEN, JR., M.D., M.P.H.
ASSISTANT STATE HEALTH DIRECTOR

MEMORANDUM

TO : The File for Informational Purposes

FROM : *REM*
Robert E. May, Industrial Hygiene Engineer
Occupational Health Protection Section

SUBJECT : Superior Electro Finishes
Winston-Salem, N. C.

I received a telephone call from Mr. J. R. Brandon of the N. C. Department of Labor today regarding the Superior Electro Finishes Company in Winston-Salem.

Mr. Brandon stated that a representative of the Department of Labor visited the subject company on January 4 and discussed the recommendations for improvement given in my report dated November 11, 1965 with Mr. Richard D. Nichols, Plant Manager. Mr. Nichols stated that a copy of my report had also been sent to his superior, Mr. Lindsey Walker, General Manager of the Allied Tool and Machine Company, and that Mr. Walker had advised him that no action would be taken on the recommendations.

REM:fms

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA

W

TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.

Address 115 East Polo Road, Winston-Salem, NC Location Same

Visit made by Robert E. May, Industrial Hygiene Engineer Date November 11, 1965

Persons Contacted Mr. Richard D. Nichols, Plant Manager

Reasons for visit Request from The Forsyth County Health Department

Product Mfg. Electroplating No. Employees 6

Plant Medical Services

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Richard D. Nichols
Allied Tool and Machine Co., Kernersville, Attn: Mr. Linsey Walker, General Mgr.
Forsyth County Health Department, Attn: Dr. James A. Finger

REPORT: Dr. W. L. Wilson, Chief, Occupational Health Section ✓ Central Files (2)
Mr. Dan Johnston, Sanitary Engineering Division, Department of Labor (2)

On Thursday, November 11, I accompanied Mr. Martin Ericson and Mr. T. D. Flack of the Forsyth County Health Department to the Superior Electro Finishes Company. The visit was requested by the Forsyth County Health Department because of complaints received that fumes from the plant were damaging the vegetation in the area and irritating the eyes and noses of people living near the plant.

The Superior Electro Finishes plant is located in a small one-story building on East Polo Road. It is owned by Allied Tool and Machine Company of Kernersville, North Carolina and engages in the electroplating of a variety of small metal parts with zinc, copper, nickle, chrome, gold, silver, cadmium, brass, and abaloy. Most of the electroplating operations are carried out in one room which is approximately 50 feet wide and 75 to 100 feet long. The room houses four parallel rows of cleaning, washing, and plating tanks in the center and several tanks at each end.

One particular acid "de-burring" operation was reported to be responsible for the complaints received. This operation consists of dipping baskets of steel clock parts in a solution of sulfuric and nitric acids, followed by a water rinse.* During the de-burring operation, a reddish-brown gas, probably nitrogen dioxide, is evolved. It is necessary to de-burr clock parts for about 2 hours on one day out of every month. Because of the irritating fumes evolved, the de-burring operation is done outside, back of the building. It is understandable that the neighbors might complain upon seeing a brown, irritating gas drifting across their yards, but the evolution of these fumes for

*No parts were being de-burred on the day of this visit.

REM:fms REM

November 16, 1965

only two hours a month can hardly be responsible for damaging vegetation or causing an unreasonable nuisance to the people living near the plant.

None of the plating, washing, or cleaning tanks inside of the plant are locally exhaust ventilated. The fumes evolved are dispersed into the workroom causing a mixture of fumes to persist in the workroom. Two propeller-type fans located in the room walls are used to exhaust the fumes to the outside. One of the fans was not running during this visit. The other fan was directed into a storage room adjoining the building and was, therefore, probably not exhausting much air. Fresh air entered the room through windows in the side walls. It is possible that the continual exhausting of the fumes from the electroplating room could be the real cause of the complaints of eye and nose irritation from the people living near the plant.

Several of the chemicals which are used by the plant are stored behind and beside the plant building. These chemicals include sulfuric acid, muriatic acid, nitric acid, aqua ammonia, and the sulfuric-nitric acid de-burring solution. Access to these chemicals is not restricted in any way. The containers are not locked or enclosed by a fence. This storage situation could present a safety hazard to persons who live near the plant and who are not aware of the corrosive properties of the chemicals.

During this visit, air samples were taken to determine the concentrations of chromic acid mist near the chrome plating tank and hydrogen cyanide above the copper plating tank. Results indicate chromic acid mist concentrations above the recommended threshold limit value in the area around the chrome plating tank. No hydrogen cyanide was detected above the copper plating tank.

Recommendations:

1. An exhaust ventilation system should be installed which will provide local exhaust ventilation for each plating, anodizing, or dip tank which evolves or is likely to evolve toxic mists or gases. Mists or gases collected by the system should be exhausted through a stack above the plant building.
2. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel.

REM:fms REM
November 16, 1965

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
ANALYTICAL RESULTS

Sample Number	DESCRIPTION	Results	Remarks
	Superior Electro Finishes, Inc. Winston-Salem, N. C.		
	<u>Chromic Acid Mist</u>		
1	In the aisle about 3 feet from the chrome plating tank.	1.34	mg/m ³
2	In the middle of the room in front of the chrome plating tank at a distance of about 20 feet from the tank.	0.35	mg/m ³
	<u>Hydrogen Cyanide</u>		
1	Above the solution in the copper plating tank.	0	mg/m ³
2	Same as 1.	0	mg/m ³
	NOTE: The threshold limit values for Hydrogen Cyanide and Chromic Acid mist recommended by the American Conference of Governmental Industrial Hygienists for an 8 hour work day are as follows:		
	Hydrogen Cyanide - 11 mg/m ³ Chromic Acid mist - 0.1 mg/m ³		
	REM:fms REM November 16, 1965		

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

November 5, 1965

Mr. Martin W. Ericson, Chief
Bureau of Environmental Health
Forsyth County Health Department
P. O. Box 2975
Winston-Salem, North Carolina

Dear Mr. Ericson:

Your request to Doctor Wilson to survey Superior Electro Finishes, Inc. has been referred to me for answer.

I think the three problems you have described are not only possible, but probable, and I am planning for one of us to visit the plant as soon as our schedule permits.

I will give you a call when a date is set so that we can be sure that you or one of your staff can accompany us.

Thank you for bringing this to our attention, and I hope we can find acceptable answers to Mr. Nichols' problems.

Sincerely,

John C. Lumsden
Chief Industrial Hygiene Engineer
Occupational Health Section

JCL:fms

cc: Doctor W. L. Wilson

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

yes

(W)

November 5, 1965

Mr. Martin W. Ericson, Chief
Bureau of Environmental Health
Forsyth County Health Department
P. O. Box 2975
Winston-Salem, North Carolina

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Thank you for bringing this to our attention, and I hope we can find acceptable answers to Mr. Nichols' problems.

Sincerely,

John C. Lumsden
Chief Industrial Hygiene Engineer
Occupational Health Section

JCL:fms

cc: Doctor W. L. Wilson ✓

*John
Ples handle +
let Ericson know
date your visit
(or whenever)
please
W*



RECEIVED
OCT 28 1965
RAD. & OCC. HEALTH PROGRAM

FORSYTH COUNTY HEALTH DEPARTMENT

P. O. BOX 2975 PR - 3-7811
WINSTON-SALEM, N. C. 27102

October 25, 1965

*Refer copy of report
to Don Johnston, S.E.P.*

Dr. William L. Wilson, Chief
Occupational Health Section
Epidemiology Division
State Board of Health
Raleigh, N. C.

Dear Dr. Wilson:

On October 22, 1965 this department received two complaints that fumes from the Superior Electro Finishes, Inc., 115 East Polo Road, Winston-Salem, N. C. were causing crops and trees to die in the adjacent area and were irritating eyes and noses of people living near the plant.

An investigation revealed that this company on occasion dips several baskets of steel clock parts into a crock of concentrated nitric and sulphuric acid to remove burrs from these parts. During the operation a cloud of orange fumes are given off. The process caused so much trouble inside the plant that it has been moved outside the plant. The process is carried out by an employee wearing rubber gloves, but no face mask.

Mr. Richard D. Nichols, Manager, stated that although they had been de-burring these parts for approximately two years, this was the first complaint from neighbors. On October 22, 1965, the day of the complaint, the wind was blowing toward the houses from which complaints were received. The humidity was also high. Mr. Nichols also stated that his employees disliked carrying out this process because of the fumes.

After surveying the situation, I believe the following problems exist:

1. A severe safety hazard is created by leaving crocks containing strong acid unattended in the unfenced yard of this plant. There is a distinct possibility that children might be seriously injured while playing in the area.

2. It would seem that there is a possibility that the fumes coming from this process may injure an unprotected worker.
3. There is a possibility that when the wind and weather conditions are right that these fumes may bother people in the neighborhood.

Since it seems that your office in recommending the proper procedures for carrying out this process to protect the employees may also eliminate the other problems mentioned, I suggested that Mr. Nichols might avail himself of the services of your section.

Mr. Nichols asked that I write you and request a visit. Since he appears to be a young progressive business man, I am sure he would welcome your checking his whole plant for industrial health hazards.

We would appreciate it if you or one of your men would make plans to visit this plant. We would like to have one of our men accompany you to the plant if possible.

Very truly yours,

BUREAU OF ENVIRONMENTAL HEALTH

Martin W. Ericson
Martin W. Ericson, Chief

MWE:gb

(2)

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA
TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.

Address 115 E. Polo Rd., Winston-Salem, NC Location Winston-Salem, N. C.

Visit made by Robert E. May, Industrial Hygiene Engineer Date March 9, 1966

Persons Contacted Mr. Jim Garst, Manager

Reasons for visit Follow-up on A Previous Visit.

Product Mfg. Electroplating No. Employees

Plant Medical Services

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Jim Garst, Manager
Allied Tool and Machine Co., Kernersville, Attn: Mr. Linsey Walker, Gen. Mgr.
Forsyth County Health Dept., Attn: Dr. James A. Finger

REPORT: Dr. W. L. Wilson, Chief, Occupational Health & Radiation Protection Section ✓
Department of Labor (2) Central Files (2)

This visit to the Superior Electro Finishes Company was made as a follow-up of a previous visit on November 11, 1965. During this visit, I talked with the company's new manager, Mr. Jim Garst. The weather on this day was characterized by clear skies, unseasonably high temperatures and low humidity.

Activities at this company were found to be basically the same as during the previous visit. No action had been taken on the recommendations made at that time.

During this visit, three samples were taken near the chrome plating tank. Results indicate that the concentration of chromic acid mist in the vicinity of this tank is above the recommended threshold limit value of 0.1 milligram per cubic meter of air. Mr. Garst stated that he plans to eliminate the evolution of chromic acid mist by adding a product called "Zero Mist" to the solution in the tank.

Visual inspection of the area outside of the building revealed that the acid "de-burring" operation had not been enclosed or otherwise restricted as was recommended after the November 11 visit. The open crocks containing sulfuric acid and nitric acid were still present and easily accessible to anyone who might venture near the plant.

RLM:fms *REM*
March 24, 1966

Recommendations:

1. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel (November 11, 1965).
2. Superior Electro Finishes, Inc. should be visited again in about one month to determine if the addition of "Zero Mist" to the chrome plating tank adequately controls the evolution of chromic acid mist.

REM:fms REM
March 24, 1966

STATE BOARD OF HEALTH

OCCUPATIONAL HEALTH SECTION

ANALYTICAL RESULTS

Sample Number	DESCRIPTION	Results	Remarks
	Superior Electro Finishes, Inc. Winston-Salem, N. C. March 9, 1966		
	<p style="text-align: center;"><u>Chromic Acid Mist</u></p> <p>1 In the aisle about 6 feet from the chrome plating tank.</p> <p>2 In the aisle about 18 feet from the chrome plating tank.</p> <p>3 In the middle of the room in front of the chrome plating tank, about 20 feet from the tank.</p> <p>NOTE: The threshold limit value for chromic acid mist recommended by the American Conference of Governmental Industrial Hygienists for an 8-hour work day is 0.1 milligrams per cubic meter of air.</p> <p>REM: fms REM March 24, 1966</p>	<p>0.2</p> <p>0.1</p> <p>0.05</p>	<p>mg/m³</p> <p>mg/m³</p> <p>mg/m³</p>



NORTH CAROLINA
STATE BOARD OF HEALTH

RALEIGH 27602

June 10, 1966

MEMBERS

LENOX D. BAKER, M.D., PRES. DURHAM
JAMES S. RAPER, M.D., VICE-PRES. ASHEVILLE
BEN W. DAWSEY, D.V.M. GASTONIA
SAMUEL G. KOONCE, PH.G. CHADBOURN
OSCAR S. GOODWIN, M.D., APEX
A. P. CLINE, SR., D.D.S. CANTON
JOSEPH S. HIATT, JR., M.D. SOUTHERN PINES
J. M. LACKEY RT. 2, HIDDENITE
HOWARD PAUL STEIGER, M.D., CHARLOTTE

JACOB KOOMEN, M.D., M.P.H.
ACTING STATE HEALTH DIRECTOR
AND
SECRETARY-TREASURER

W. BURNS JONES, JR., M.D., M.P.H.
ACTING ASSISTANT STATE HEALTH DIRECTOR

MEMORANDUM

TO : The File for Informational Purposes

FROM : Robert E. May
Industrial Hygiene Engineer

SUBJECT : Superior Electro Finishes, Inc.
Winston-Salem, North Carolina

The subject company was visited on May 24, 1966 as a follow-up of a previous visit made on March 9, 1966. The primary purpose of this visit was to evaluate, by atmospheric sampling for chromic acid mist, the effectiveness of "Zero Mist" as a means of controlling the evolution of mist from the chrome plating tank. Because the D. C. Rheostat for the chrome plating tank was out for repairs, no chrome plating was being done. According to Mr. Jim Garst, Plant Manager, chrome plating should be resumed by the last week in June. It will, therefore, be necessary to return to the subject company at that time.

Mr. Garst called my attention to the fact that the trash in back of the building had been removed. Tops had been placed on all of the acid containing carboys. Mr. Garst stated that a drum is placed upside-down over the crock containing the nitric-sulfuric acid dip after working hours. I assume that he was referring to a large polyethylene drum which was beside the crock. While this does not prevent entry into the crock, it does make the acid dip somewhat inaccessible.

REM:fms *REM*

cc: Department of Labor (2)

724-3160

W

STATE BOARD OF HEALTH
OCCUPATIONAL HEALTH SECTION
RALEIGH, NORTH CAROLINA

TECHNICAL REPORT

REPORT OF VISIT TO Superior Electro Finishes, Inc.

Address 115 E. Polo Rd., Winston-Salem, NC Location Winston-Salem, N. C.

Visit made by Robert E. May, Industrial Hygiene Engineer Date June 28, 1966
J. R. Brandon, Department of Labor

Persons Contacted Mr. E. I. Nichols

Reasons for visit Follow-up on March 9, 1966 visit.

Product Mfg. Electroplating No. Employees -

Plant Medical Services -

Copies to: Superior Electro Finishes, Inc., Attn: Mr. Fred E. Lewis, Jr., Plant Mgr.
Dr. W. L. Wilson, Chief, Occupational Health & Radiation Protection Section ✓
Allied Tool & Machine Co., Kernersville, Attn: Mr. Lindsey Walker, President
REPORT: Forsyth County Health Dept., Attn: Mr. James A. Finger, Health Director
Department of Labor (2) Central Files (2)

This was a second follow-up of a previous visit made on March 9. The primary purpose of this visit was to evaluate, by atmospheric sampling for chromic acid mist, the effectiveness of "Zero Mist" as a means of controlling the evolution of mist from the chrome plating tank. Because the D. C. Rectifier for the chrome plating tank was still out for repairs, no chrome plating was being done. According to Mr. E. I. Nichols, it is not possible to say exactly when the D. C. Rectifier will be repaired and returned, but it is expected to be in the near future.

On this day tin, nickel, zinc, brass and copper were being plated.

During this visit, it was learned that Mr. Jim Garst, formerly plant manager, is no longer associated with Superior Electro Finishes, Inc. The company's new plant manager is Mr. Fred E. Lewis, Jr.

On the afternoon of this same day, a visit was made to the office of Mr. Lindsey Walker at the Allied Tool and Machine Company in Kernersville. Mr. Walker is the President of Allied Tool and Machine Company and Vice-President of Superior Electro Finishes, Inc. The general health and safety situation at Superior Electro Finishes was discussed with Mr. Walker. With regard to a previous recommendation that the dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution and the other containers of acid, should be stored in such a way as to be inaccessible to all persons other than plant personnel, Mr. Walker stated that a fenced-in area will be built behind the plant and that these hazardous chemicals will be stored within it.

REM:fms *REM*
July 1, 1966

Recommendations:

1. Dangerous chemicals, such as the sulfuric-nitric acid "de-burring" solution should be stored in such a way as to be inaccessible to all persons other than plant personnel (November 11, 1965).
2. Superior Electro Finishes, Inc. should be visited again when the chrome plating operation has been resumed to determine if the addition of "Zero Mist" to the solution adequately controls the evolution of chromic acid mist.

REM:fms
July 1, 1966

REM

Le Bob

NORTH CAROLINA
STATE BOARD OF HEALTH
RALEIGH

August 22, 1966

MEMORANDUM

TO : John C. Lunsden
Chief Industrial Hygiene Engineer
Occupational Health & Radiation Protection Section

FROM : Robert E. May *REM*
Industrial Hygiene Engineer

SUBJECT : Superior Electro Finishes, Inc.

On August 12 I talked by telephone with Mr. E. I. Nichols, of the subject company to obtain a progress report on the recommendations made in the report of my June 28, 1966 visit.

According to Mr. Nichols, a fence has been built around the chemicals storage area in back of the company's building as was recommended. The chrome plating operation has not yet been resumed because the D. C. Rectifier is still out for repairs.

REM:fas

cc: Mr. J. R. Brandon
Department of Labor

NORTH CAROLINA STATE BOARD OF HEALTH

LABORATORY DIVISION, P. O. BOX 711

RALEIGH, NORTH CAROLINA

Chemical Analysis for Water

REPORT TO: Robert E. May (Name and Title)

ADDRESS: Occupational Health Section

State Board of Health, Raleigh, N. C.

MARKED (name of supply): Superior Electro Finishes Inc.

COUNTY: _____

SOURCE: Well Tap () Plant Tap () Distribution Tap () Other _____

TREATMENT: None () Chlorinated () Fluoridated () Filtered ()
 Alum () Lime () Soda Ash () Ammonia () Iron Removal ()
 Softening Plant ()

COLLECTED BY: REM DATE _____ TIME _____

Laboratory No.	Received	Analyzed	Reported
	3-14-66		3-14-66

Analysis - - Results in Parts Per Million

AES	Radio-activity	Acid #24	1260	0 ml of 0.02 N Na OH
Alkalinity (CaCO ₃)	Total Hardness (CaCO ₃)	#34	1261	0 ml of 0.02 N Na OH
Chlorides (Cl)		Blank #162	1262	0 ml of 0.02 N Na OH
Color		Base #3	1263	0.17 ml 0.02 N H ₂ SO ₄
Iron (Fe)		Blank #26	1264	0
Manganese (Mn)				3.4
pH				

Remarks: *These results appear to be slightly unreliable and were not included in the report on this visit.*

LYNN G. MADDRY, Ph. D., Acting Director

REPORTED BY

MOSEMAN

REM

5-20-86

Superior Electro Finishes

115 E. Polo Rd.

Winston-Salem, NC

full
tube
drum
with
material

mine
plastic
40 gal
drum
visible
through
cracks in
wood

120' x 60'
bldg

airway

empty

garage
entrance

plating
areas

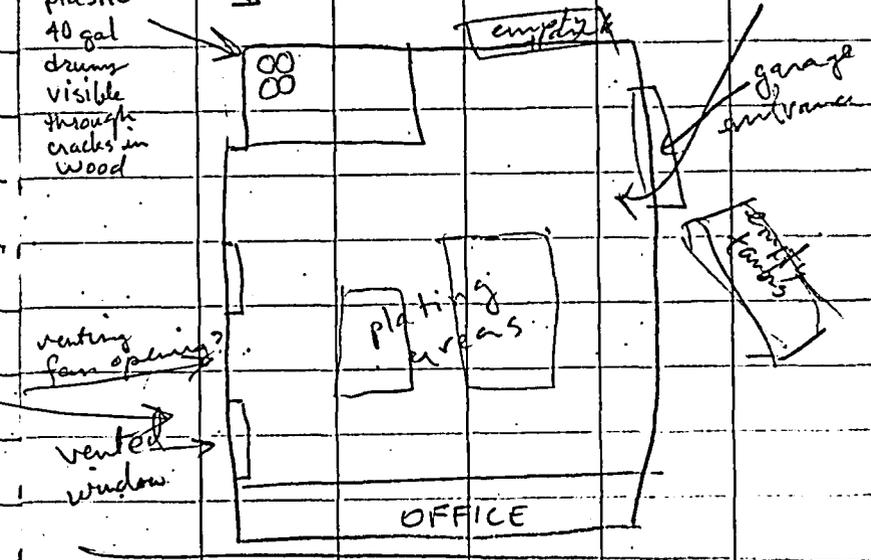
venting
fan opening?

airway

vented
window

OFFICE

Polo Rd.



21 April 1986

TO: File
FROM: D. Mark Durway
RE: Superior Electro Finishes (NC D000006361) Winston-Salem, NC.

I spoke to the owner of this site, Amos Pope, who is now with Allied Tool Machine Co. in Kernersville, NC (tel. 919/993-2131). He reported the following about the subject site:

1. It employed 3 to 4 persons.
2. It was located in a 30' x 40' building on property of less than 1 acre.
3. There are railroad tracks and buildings adjacent to the site.
4. Waste was never disposed on-site. Drums of chemicals and other raw products were never stored outside the building. No spills or other releases occurred outdoors, to the best of his knowledge.
5. The site is unfenced; however the building is locked.
6. Mr. Pope granted permission to visit the site. He requested that we report to him as to our findings.

DMD/tb/0175b

DATE: April 25, 1986

TO: Lee Crosby

FROM: Pat DeRosa 

RE: Forbush Metal Finishing, Inc., NC D071579528
Superior Electro Finishes, NC D000006361

This is to remind you that Mark and I will be conducting a site inspection at Forbush Metal Finishing, Inc. in Yadkinville on April 30, 1986. We will also recon Superior Electro Finishes in Winston-Salem from the periphery of the site. This recon is to confirm our information that sampling at Superior will require entering a closed building which may contain cyanide waste remaining from site abandonment. We understand that no areas outside the building were used in handling and storage of hazardous materials. We expect to complete the site inspection at Forbush in one day barring any unexpected delays.

Please let me know if you would like me to contact any of the following:

1. Yadkin County Health Dept.
2. Julian Foscue, Western Program Supervisor, RCRA.
3. Steve Reid, Public Information Officer.

I have enclosed a copy of the PA and transmittal letter for Forbush if you need to supply any background information about our scheduled inspection. This PA will be mailed out to EPA today or Monday, 4-28-86.

PD/pd/0266b

8 July 1987

TO: File

FROM: D. Mark Durway *DM*

SUBJECT: Site visits to Forbush Metal Finishing (NC D071579528) in Yadkin County and Superior Electro Finishes (NC D00006361) in Winston-Salem

On 7-7-87 I met Bill Klutz of EPA and David "Charlie" Wingerd of Weston for the purpose of visiting the subject sites. Klutz's intention was to determine whether or not these two sites posed an immediate health or environmental threat. Klutz concluded that they do.

At Forbush we met David Manson, who gave us permission to look around the site. Manson rents the property from J.D. Davis, whose mother owns it. We observed that the concrete lined evaporation pit, sampled during the May 1986 CERCLA site inspection, had been back-filled. In addition, much solid waste (non-hazardous) had been removed from the site since 1986. Manson showed us a partially buried concrete object located immediately east of the old evaporation pit. This object was not detected amidst the rubble during the May 1986 inspection; it is approximately 20" in diameter and is suspected of having something to do with the pit.

At Superior we noticed that the chemical storage area behind the building had been broken into since the site was last visited in May 1986. We observed inside the chemical storage area several drums, including one labeled "oxidizer." A tank outside the building with dimensions approximating 7' long x 4' wide x 5' high was observed to contain approximately 6" of blue-green solution. This tank was leaking from a badly corroded seam at a rate of several drops per minute. In May 1986 the tank was observed to be full of rain water. Noteworthy is that during the 7-7-87 visit, a dead sparrow was found inside the tank.

I took approximately 20 photographs during the site visits for CERCLA files.

August 13, 1987

TO: Lee Crosby

FROM: D. Mark Durway *DMD.*

RE: Sampling at Superior Electro Finishes by EPA on August 17-18

Sherman Woodson of Weston in Atlanta (tel. 404/352-4147) phoned this morning to say that he and Bill Klutz of EPA (tel. 404/347-3931) will be sampling at Superior Electro Finishes on August 17-18. This facility is located at 115 East Polo Road in Winston-Salem.

Woodson and Klutz will meet property owner Amos Pope on-site at 3:00 PM on August 17. Woodson and an assistant will enter the facility in Level B protective clothing to determine pH of on-site wastes. At 7:00 AM on August 18, the team will return to the facility to conduct sampling.

Superior Electro Finishes operated from 1970 until 1981. Tanks containing metal plating solutions, and drums containing corrosive materials, oxidizers, and possibly cyanides, remain inside and around the perimeter of the building. Site access is unrestricted, and there is evidence that this inner-city facility has been broken into on more than one occasion in the past several years.

cc: Doug Holyfield
Steve Phibbs

8-3-87

Superior Electro-Finishes

Sherman Woodson of Weston (Atlanta) phoned to get info on Superior E-Finishes in Winston. Woodson, who works with Charlie Wingerd will ~~visit~~ probably sample site next week. Woodson's telephone # is 404/352-4147.

SUPERIOR ELECTRO FINISHES

NOTES

4-21-86

phone call to Amos Pope, owner, who is presently with Allied Tool Machine Co. (tel 919/993-2131). SEE FILE MEMO

87

7-2-~~86~~

phoned A. Pope — DMD

as appropriate
↓
22 April 1986

Ms. Denise Bland
etc.

SUBJECT: Site Investigation
Superior Electro Finishes NC D000006361
115 East Polo Road
Winston-Salem, NC 27105

Dear Ms. Bland:

Enclosed please find ~~Preliminary Assessment~~ information pertaining to the subject site, Superior Electro Finishes. Findings presented in ~~the Preliminary Assessment~~ are based on information ^{available} at the North Carolina Solid and Hazardous Waste Management Branch, ^{a reconnaissance survey,} and communication with persons knowledgeable about the subject site.

Review of information pertaining to past waste handling practices at Superior Electro Finishes indicates that ~~that~~ a comprehensive Site Investigation at this facility would ~~not~~ require entering an enclosed building. Based on communication with Amos Pope, who owns the facility, it appears likely that zinc cyanide and sulfuric acid are presently ~~to~~ stored within the building. Presence of these two chemicals poses a potential ~~potential~~ IDLH situation in that these two substances in combination

ATTACHED: PA Form & PA Transmittal Letter.

M.D.

Sincerely,

For further information please contact me at (919) 733-2801.

~~place in the area.~~
~~suggests that waste handling activities never took~~
~~investigative work outside of the building, the available data~~
~~facilitate safe entry into or while we do have the capability to conduct~~
is not presently equipped with the protective equipment necessary to
enclosed building.
Electro Finishes, for the reason that our program
the US EPA conduct the Site Investigation at Superior
The North Carolina CERCLA Unit recommends that

possibly electroplating sludge.
was suspected to contain some chemical waste,
rubble and junk pile adjacent to the building
which was suspected of containing corrosives. A small
equipment was visible inside, as were plastic drums,
the building was not entered during the survey, electroplating
that access ~~into~~ the building is unrestricted. ~~Though~~
A recommended Survey on 5-20-86 revealed
Although



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

20 December 1985

Ms. Denise Bland
EPA NC CERCLA Project Officer
Air and Hazardous Material Division
345 Courtland Street, N.E.
Atlanta, GA 30365

SUBJECT: Preliminary Assessment Report
Superior Electro Finishes NC D000006361
115 East Polo Road
Winston-Salem, NC

Dear Ms. Bland:

Enclosed please find the Preliminary Assessment report for the subject site. This priority is based on review of available data.

Superior Electro Finishes operated from about 1970 to 1981 as an electroplater, and appears to have ceased operation without going through ~~proper~~ proper closure procedures. Waste types generated on-site include electroplating wastewater sludge (F006).

~~REPT~~ NO
CHANGE

Amos Pope, now of Allied Tool Machine Co. in Kernersville, NC, is the owner and past operator of Superior. He reported in a telephone conversation that in 1981, the city of Winston-Salem abruptly discontinued the Superior water supply. Based on Mr Pope's comments, it appeared that this action was taken in response to the city's displeasure with the quality of wastewater Superior had been discharging to the city sewer. Mr. Pope said that when the water was discontinued that he immediately terminated operations; the plant has been padlocked ever since.

Mr. Pope stated that tanks at the plant still probably contain electroplating sludge. He also recollected that sulfuric acid and zinc cyanide might still be stored on-site in a storage room. He claimed, however, that waste has never been disposed on-site, and knew of no releases which had occurred.

Ms. Denise Bland
Page 2

It is believed that this abandoned facility has not been inspected in at least three years, and that it poses a potential threat to health and the environment. Priority assigned is Medium.

References used in completing this Preliminary Assessment are as follows:

1. Amos Pope, owner of the Superior Electro Finishes plant site, currently at Allied Tool Machine Co., Kernersville, NC, personal communication, 12-6-85.

On 19 December 1985, this Preliminary Assessment was reviewed by CERCLA Unit personnel and by the following representatives from the North Carolina Department of Natural Resources and Community Development, Division of Environmental Management: Fay Sweat, Groundwater Section and Glen Ross, Air Quality Section.

If you have any questions, please call me at (919) 733-2178.

Sincerely,

D. Mark Durway

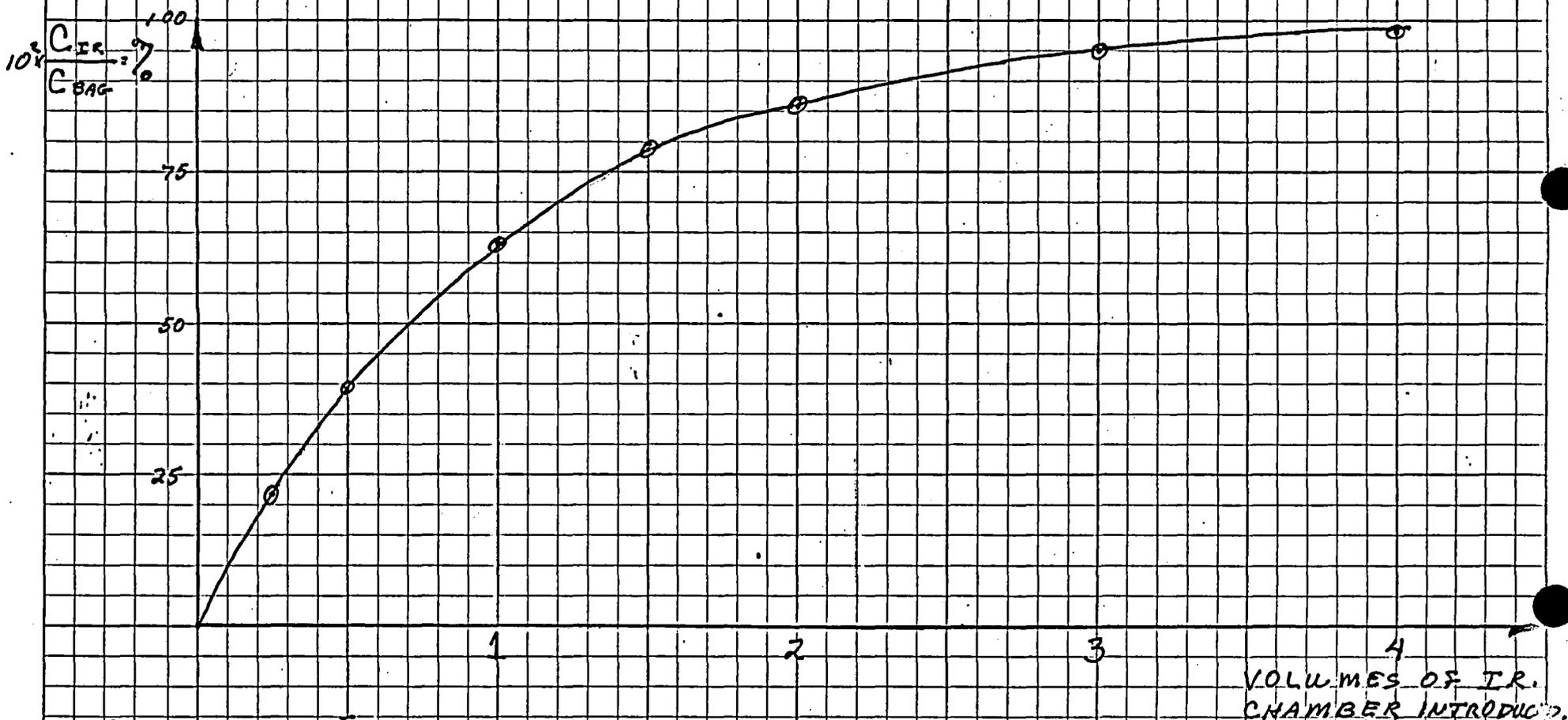
D. Mark Durway, Geologist
Solid and Hazardous Waste Management Branch
Environmental Health Section

DMD/tb/0175b

Coe ^{kt}

- 1) audible alarm system or communication
any time potentially out of sight
- 2) air building → w/ blowers ← maybe
1 air/hr in bldg.
- 3) lights on (?) explosion hazard
bldg - maintained (?)
any people going in or out (?)
- 4) sq. ft in bldg (?)
- 5) how to get access to bldg
- 6) how many floors
- 7) closed rooms on inside proper
- 8) 4 air = 90% dilution

RATIO OF CONTAMINANT IN MIRAN TO
CONTAMINANT IN GAS SAMPLING BAG



$$\frac{C_{IR}}{C_{BAG}} = 1 - e^{-\frac{F}{V}t}$$

C_{IR} = concentration of contaminant in IR chamber (PPM)

C_{BAG} = concentration of contaminant in gas sampling bag (PPM)

F = transfer flow rate from bag to IR chamber (LPM)

V = volume of IR chamber (liters)

t = transfer time (minutes)

Assume turbulent mixing

Reference: Ind. Eng. Chem. Anal. Ed. Control P124

VOLUMES OF I.R.
CHAMBER INTRODUCED.

RECOMMEND SAMPLING
APPROX. 3 I.R. CHAMBER
VOLUMES TO YIELD
I.R. ANALYSIS RESULTS
OF 95% ACTUAL CONCENTRATION
OF CONTAMINANT SAMPLED.

C.D. Bacon 11-15-82

5-20-86

Superior Electro Finishing

1000 St. Winston Salem

- windshield, walk-up visit

6³⁰ PM

site lies beside RR

tracks

- building has vent windows
open + holes in front windows

- one tank, rectangular
filled with liquid outside
bldg ~ 10' x 4' x 4'

- could see black plastic
drums inside bldg. There
hole in exterior wall.

weather - cloudy, hazy
~ 60°F

some fiber drums with
tast + whitish-gray solid

material in yard. may be
dried sludge or ash.

can see tanks + equipment
inside building.



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

20 December 1985

Ms. Denise Bland
EPA NC CERCLA Project Officer
Air and Hazardous Material Division
345 Courtland Street, N.E.
Atlanta, GA 30365

SUBJECT: Preliminary Assessment Report
Superior Electro Finishes NC D000006361
115 East Polo Road
Winston-Salem, NC

Dear Ms. Bland:

Enclosed please find the Preliminary Assessment report for the subject site. This priority is based on review of available data.

Superior Electro Finishes operated from about 1970 to 1981 as an electroplater, and appears to have ceased operation without going through proper closure procedures. Waste types generated on-site include electroplating wastewater sludge (F006).

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Ms. Denise Bland
Page 2

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If you have any questions, please call me at (919) 733-2178.

Sincerely,

D. Mark Durway

D. Mark Durway, Geologist
Solid and Hazardous Waste Management Branch
Environmental Health Section

DMD/tb/0175b



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE NC	02 SITE NUMBER D000006361

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION
Zinc cyanide and sulfuric acid believed to be stored on site. These chemicals would react to form cyanide gas if they were to come in contact with one another.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

01 E. DIRECT CONTACT 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

Facility is padlocked. No known hazards outside of enclosed areas.

~~Access~~ Access into parts of building is unrestricted. ~~Access into parts of building is unrestricted.~~

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: Site approx. 0.5 04 NARRATIVE DESCRIPTION
(Acres) acres

No known on-site disposal, though spills have potentially occurred.

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: N/A 04 NARRATIVE DESCRIPTION

Local buildings are connected to city water.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED: N/A 04 NARRATIVE DESCRIPTION

Plant is closed.

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

No known complaints from public regarding hazards which site potentially poses.



**POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NC	D000006361

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 <input type="checkbox"/> J. DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Unknown.			

01 <input type="checkbox"/> K. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION (include name(s) of species)	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Unknown.			

01 <input type="checkbox"/> L. CONTAMINATION OF FOOD CHAIN 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Unknown.			

01 <input checked="" type="checkbox"/> M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
04 NARRATIVE DESCRIPTION Site is essentially abandoned. Type of containment of wastes/chemicals is unknown.			

01 <input type="checkbox"/> N. DAMAGE TO OFFSITE PROPERTY 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Unknown.			

01 <input checked="" type="checkbox"/> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
It is believed that the City of Winston-Salem was dissatisfied with the quality of wastewater which SEF discharged into the city sewer.			

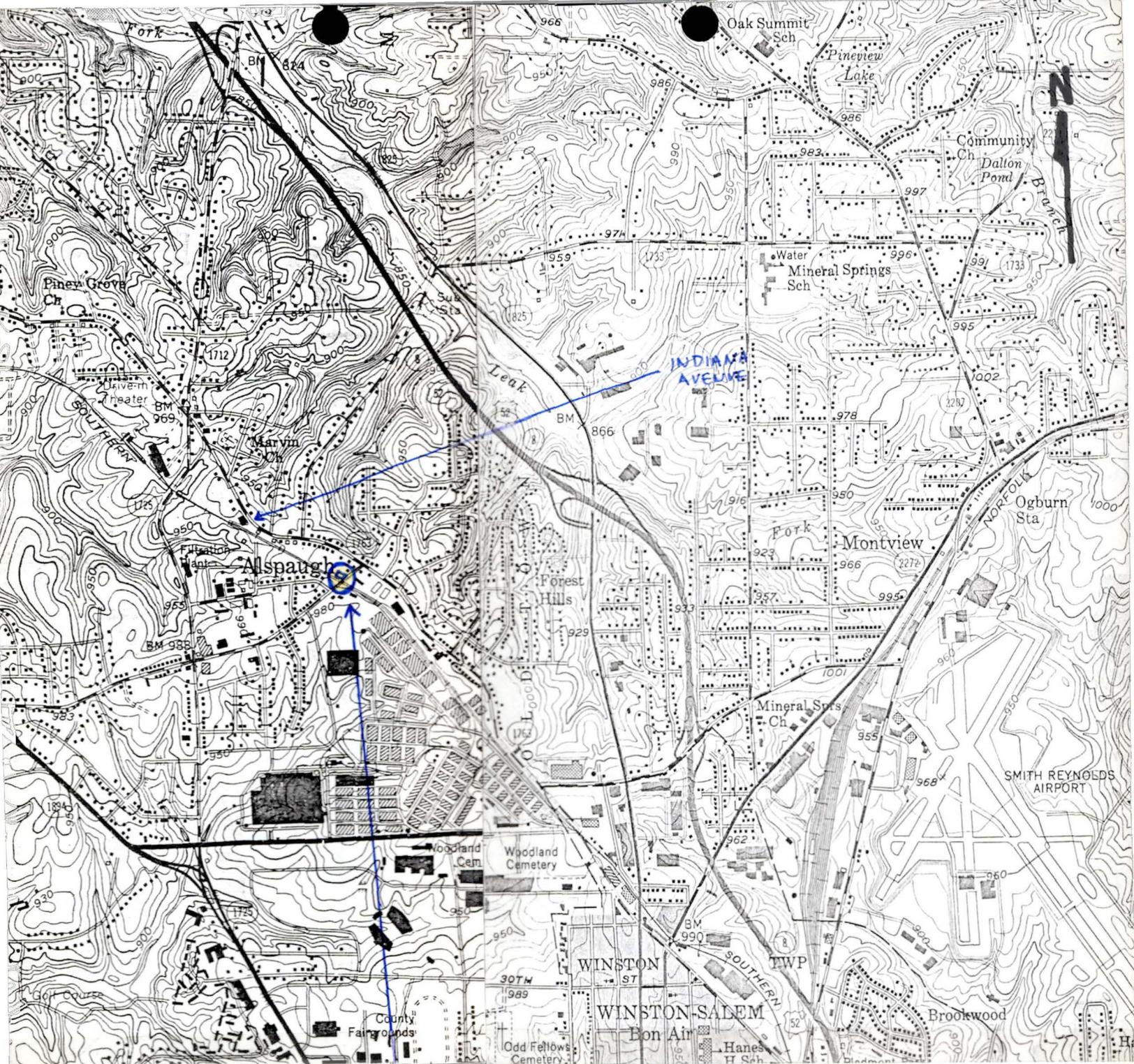
01 <input checked="" type="checkbox"/> P. ILLEGAL/UNAUTHORIZED DUMPING 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Unknown.			

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS			
Unknown.			

III. TOTAL POPULATION POTENTIALLY AFFECTED: Unknown.

IV. COMMENTS			

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)			
As previously cited.			



SUPERIOR ELECTRO FINISHES / NC D00006361
 115 E. POLO ST.
 WINSTON - SALEM, NC
 (APPROX. LOCATION)

USGS 7.5'
 RURAL HALL, NC
 1951/1971 P.R.

USGS 7.5'
 WALKERTOWN, NC
 1951/1971 P.R.

TO: File
FROM: D. Mark Durway
DATE: 12-11-85
RE: Superior Electro Finishes/NC D000006361

On 12-6-85, I spoke to Amos Pope at Allied Tool Machine Co. Mr. Pope is owner of the now bankrupt Superior Electro Finishes (SEF) in Winston-Salem, NC.

Mr. Pope's tool company is located in Kernersville, NC. He can be reached at (919) 993-2131.

Mr. Pope said that the city discontinued his water supply at SEF, and made statements suggesting that the reason for this was that the city had complaints about the quality of wastewater SEF had been discharging to the city sewer.

Mr. Pope closed SEF immediately after the water was shut off. The plant has been padlocked for at least three years. Inside are tanks which probably contain sludge, according to Mr. Pope. The facility also has a supply of sulfuric acid and zinc cyanide, which remain in the building, according to Mr. Pope.

Mr. Pope said that SEF commenced operation in about 1970, and that the plant is situated on a 0.5 acre property.

DMD/tb/0175b

TO: File
FROM: D. Mark Durway
DATE: 12-11-85
RE: Superior Electro Finishes/NC D000006361

On 12-6-85, I spoke to the following people:

Steve Phibbs - NC Solid and Haz. Waste Mgmt. Branch - Winston-Salem
Gray Hauser - NC NRCD - Winston-Salem
Receptionist - Superior Mfg. Co. - Winston-Salem

Each provided leads, the most helpful of which came from the receptionist at Superior Mfg. Co. on Indiana Ave. in Winston-Salem. She told me that the owner of Superior Electro Finishes was at the following company:

Allied Tool Machine Co.
Kernersville, NC
tel. (919) 993-2131

DMD/tb/0175b