SDMS Document
94602

Lower Passaic River Study Area

PRP DISCHARGE CASES FOR THE LOWER PASSAIC RIVER STUDY AREA

INVESTIGATION OF THE FOUNDRY STREET COMPLEX PRPS NEWARK, NEW JERSEY

VOLUME I OF II

EVIDENCE CONCERNING:
FOUNDRY STREET COMPLEX (GENERAL FILE FOR ALL PRPS)
AUTOMATIC ELECTRO PLATING CORPORATION
CRODA INC./HUMMEL LANOLIN CORPORATION

EXHIBITS # 1 – 53

PREPARED FOR:
LOWER PASSAIC RIVER STUDY AREA
COOPERATING PARTIES GROUP

SUBMITTED TO:
USEPA REGION II

MARCH 23, 2006

946020001

LOWER PASSAIC RIVER STUDY AREA

PRP DISCHARGE CASES FOR THE LOWER PASSAIC RIVER STUDY AREA

INVESTIGATION OF THE FOUNDRY STREET COMPLEX PRPS NEWARK, NEW JERSEY

VOLUME I
INDEX OF EVIDENCE

Tab No.	Year	Day and Month	Description
1	1979	January	City of Newark , New Jersey Feasibility Study Pollution Abatement Program by Clinton Bogert Associates. Excerpts provided.
2	1975		Pollution Abatement Plan for City of Newark by Purcell Associates. Excerpts provided.
3	1980	April	Heavy Metals Source Determination Study Phase II. Excerpts provided.
4	1987		EPA Preliminary Assessment For Foundry Street Site/Arkansas Chemical.

INDEX OF EVIDENCE (CONTINUED)

Tab No.	Year	Day and Month	Description
5	1987	4-Jun	NJDEP memo to the file re: Windshield survey at Foundry Street site.
6	1990	15-Nov	NJDEP memo to Foundry Street Complex file re: Foundry Street Complex site inspection.
7	1991	3-Apr	NJDEP memo to Linda Grayson from Doug Stuart re: Responsible Party Investigation Foundry Street Complex.
8	1991	15-Aug	NJDEP memo to File re: Addendum to Foundry Street Complex Responsible Party Investigative Report.
9	1971		Annual Report by S.A. Lubetkin to the PVSC. Excerpt of PVSC Annual Report provided.
10	1972		Annual Report by S.A. Lubetkin to the PVSC. Excerpt of PVSC Annual Report provided.
11	1974		Annual Report by S.A. Lubetkin to the PVSC. Excerpt of PVSC Annual Report provided.
12	1976		Annual Report by S.A. Lubetkin to the PVSC. Excerpt of PVSC Annual Report provided.
13	1978	October	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
14	1978	November	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
15	1978	December	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
16	1979	Feb-March	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
17	1979	July	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
18	1979	October	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
19	1979	November	Weekly Resume. PVSC river inspection weekly report. Includes handwritten inspection notes.
20	1979	December	Weekly Resume 12/10-14/1979. PVSC river inspection weekly report. Includes handwritten inspection notes.
21	1979	December	Weekly Resume 12/24-28/1979. PVSC river inspection weekly report. Includes handwritten inspection notes.
22	1980		USEPA technical report entitled Dioxins. By M. P. Esposito et al. Excerpts of report provided.
23	Undated		City of Newark Department of Water and Sewer. City of Newark Sewer System. Overview of sewer system.
24	1979	March	Waste Effluent Survey. Automatic Electro Plating.

INDEX OF EVIDENCE (CONTINUED)

Tab No.	Year	Day and Month	Description
25	1981	7-Jan	Letter from Automatic Electro-Plating to NJDEP re: Base Line Report.
26	1983	27-Jan	Letter from Automatic Electro-Plating to NJDEP re: Zinc plating process.
27	1981	5-Feb	Letter from ChemTech to EPA re: waste survey for Industrial User Pretreatment Base Line Report - Electroplating Category.
28	1985	18-Jun	Diagram of sewer line for Automatic Electro Plating.
29	1980	29-Jan	Industrial Waste Contribution to Municipal System - Automatic ElectroPlating Corp.
30	1981	September	Industrial Waste Contribution to Municipal System - Automatic ElectroPlating Corp. Original Date 04/1980 but marked "superseded 09/81".
31	1981	6-Jul	Automatic ElectroPlating letter to PVSC re: sampling project.
32	1981	30-Jul	PVSC Sewer Connection Permit #20401122 for Automatic ElectroPlating.
33	1986	8-Apr	Memo to Mary Jo Aiello from Richard Katz re: Metal Finishers, Electroplaters and Printed Circuit Board Manufacturers.
34	1997	12-Jun	Diagram of Pre-Treatment Sample point for Sewer. Automatic Electro Plating.
35	2001	2-Feb	PVSC Application for Sewer Use Permit - Automatic Electroplating Corp.
36	2006	10-Feb	On-Line documents re: Envirofacts Data Warehouse.
37	2006	31-Jan	Dun & Bradstreet Comprehensive Report re: Automatic ElectroPlating Corp.
38	1996	30-Apr	USEPA Request for Information to Automatic Electro Plating Concerning the Passaic River Study Area.
39	1996	24-May	Response from Automatic ElectroPlating to EPA request for information.
40	1996	9-Aug	Vinson & Elkins letter to USEPA re: response to EPA's request for information.
41	2006	8-Feb	Dun & Bradstreet Comprehensive Report re: Croda Inc.
42	2004		Croda Worldwide online information. Company overview.

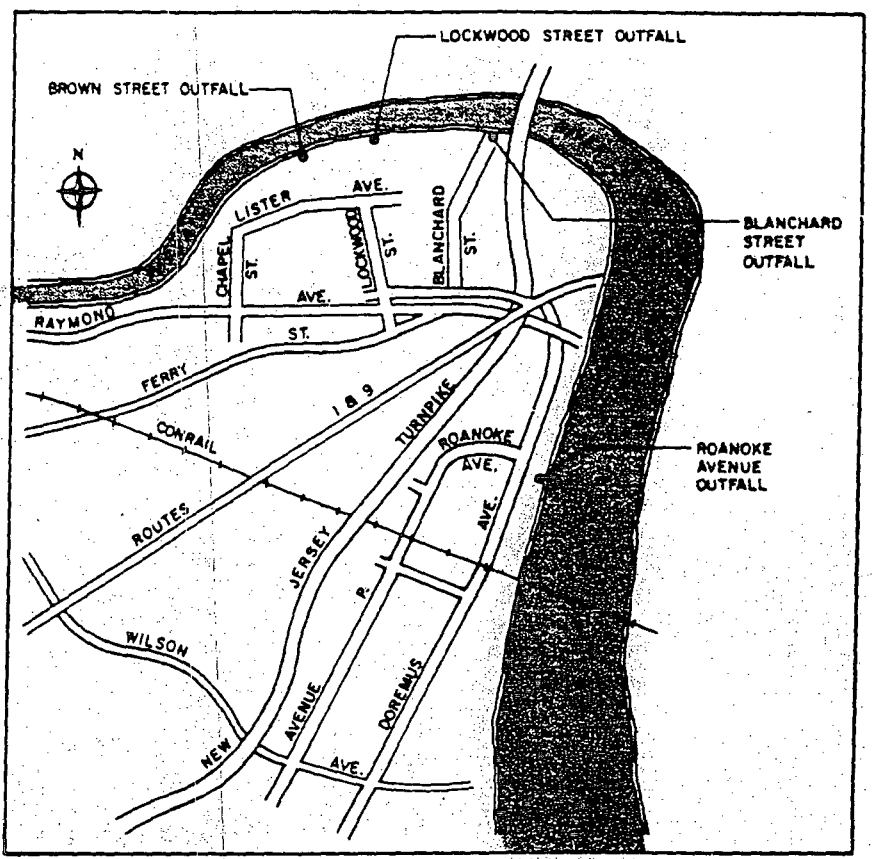
INDEX OF EVIDENCE (CONTINUED)

Tab No.	Year	Day and Month	Description
43	2006	1-Mar	Croda Corporate Profile.
44	2006	1-Mar	X-rates.com online information. Information on exchange of British pounds to U. S. dollars.
45	2006	22-Feb	NJ State Business Gateway Service re: Hummel Lanolin.
46	2006	22-Feb	NJ State Business Gateway Service re: Croda Inc.
47	1961	25-May	Certificate of Incorporation of Hummel Lanolin USA Inc.
48	1961	25-May	Certificate of Change of Name of Hummel Lanolin USA to Hummel Lanolin Corporation.
49	1989	27-Jun	Statement of Address for Receipt of Service of Process against Hummel Lanolin Corporation. With attached certificate of merger.
50	1979	22-Feb	NJDEP Order to Hummel Lanolin Corporation.
51	1979	9-Mar	NJDEP Order to Hummel Lanolin Corporation.
52	1979	14-Aug	NJDEP Report of Field Investigation Hummel Lanolin.
53	1980	22-Jan	NJDEP Report of Field Investigation Hummel Lanolin.

City of Newark, New Jersey

Feasibility Study

POLLUTION ABATEMENT PROGRAM



Clinton Bogert Associates
Consulting Engineers

September, 1978
Revised January, 1979

FMG000001

946020007

CLINTON BOGERT ASSOCIATES

PARTNERS
IVAN L. BOGERT
HERBERT L. KAUFMAN

PRINCIPAL ASSOCIATES
WAYNE EARNS
JOHN H. SCARINO

ASSOCIATES
JOHANNES DEWAAL
FRANCIS J. DOBROWOLSKI
IGNAZ POTTENBUCHER
DANIEL S. GREENE
HERBERT LANDESMAN
UMBERTO A. MILLETARI
WILLIAM WHEELER

CONSULTING ENGINEERS

2125 CENTER AVENUE • FORT LEE, NEW JERSEY 07024
(201) 944-1676 • CABLE: BOGERTENG FORTLEENJ

January 24, 1979

Honorable Kenneth A. Gibson, Mayor
City of Newark
City Hall
920 Broad Street
Newark, New Jersey 07102

Re: Pollution Abatement

Dear Mayor Gibson:

In accordance with our contract dated February 15, 1978, submitted herewith is our report on the sources of pollution discharging to the lower Passaic River during dry weather from the Roanoke Avenue combined sewer system and the Blanchard, Lockwood, and Brown Street storm sewer systems. Each system is discussed in a separate section which contains:

(1) A description of the existing sewers.
(2) Findings of the physical inspection.
(3) Conclusions and recommendations applicable to that system.

Appropriate additional items are included as follows:

(1) For the Roanoke Avenue combined sewer system (Section III), a hydraulic analysis is presented. Significant conclusions are:

(a) all dry weather overflows may not be eliminated by rehabilitation of the existing system alone; but either flow routing, using storage available in the existing sewers, or increased interceptor capacity is required; and,

(b) a faulty regulator results in all sewage flows discharging untreated to the Passaic River.

(2) For the Blanchard Street storm sewer (Section IV), the results of dry weather flow sampling and gauging, smoke testing and T.V. inspection are presented. Significant conclusions are the need to:

(a) replace about 1,300 feet of existing 24" storm sewer which appears in danger of collapse,

(b) improve housekeeping around industrial railroad sidings, and,

FMG000002

946020008

Honorable Kenneth A. Gibson, Mayor
City of Newark
City Hall
920 Broad Street
Newark, New Jersey 07102

CONSULTING ENGINEERS

We would be pleased to meet with you to review any matters contained herein. We wish to express our appreciation of the assistance given us by members of your staff, particularly Mr. Robert Benz, in carrying forward this work.

Very truly yours,

CLINTON BOGERT ASSOCIATES

Herbert L. Kaufman

Herbert L. Kaufman
P.E., N.J. Lic. No. 13647

HLK:mmb
Enclosure

FMG000003

946020009

Table of Contents

Page No.

Letter of Transmittal

I. Introduction..... 1

II. Scope of Work..... 3

III. Roanoke, Doremus, and Wilson Avenue Sewers..... 4
A. Existing Sewers..... 4
B. Physical Inspection Findings..... 5
1. Avenue "P" Regulator and Roanoke Outfall Sewer..... 5
2. Roanoke Avenue Sanitary Sewer..... 6
3. Doremus Avenue Interceptor..... 6
4. Wilson Avenue Interceptor..... 7
5. Roanoke Avenue Regulator..... 7
C. Hydraulic Analysis..... 8
1. Flow Measurement Methods..... 8
2. Observed Flow Rates..... 8
3. Diversion of Roanoke Flow to PVSC Interceptor.....10
4. Diversion Works.....14
D. Conclusions and Recommendations.....17

IV. Blanchard Street.....20
A. Physical Inspection Findings.....20
B. Dry Weather Sampling and Flow Rates.....23
C. Smoke Testing.....24
D. Television Inspection.....25
E. Conclusions and Recommendations.....26

V. Lockwood Street Outfall.....28
A. Physical Inspection Findings.....28
1. Lister Avenue Sewer.....28
2. Morris Canal Sewers.....29
3. Euclid Avenue Sewer.....29
4. Albert Avenue Sewer.....30
5. Lockwood Street Sewer.....30
6. Lister Avenue Tide Gate.....30
7. Lockwood Street Outfall.....31
B. Dry Weather Flow Sampling and Flow Monitoring.....32
C. Smoke Testing.....34
D. Television Inspection.....35
E. Conclusions and Recommendations.....38

(continued)

FMG000004

946020010

Table of Contents
(continued)

Page No.

VI. Brown Street.....41
A. Configuration.....41
B. Physical Inspection Findings.....42
C. Dry Weather Effluent Sampling.....44
D. Conclusions and Recommendations.....45

VII. General Recommendations.....46
VIII. Appendices Following Text
A. Analytical Test Results
B. Letter From Robinson Pipe Cleaning Company

FMG000005

946020011

ILLUSTRATIONS
(Following Appendices)

A. Plate 1 - Sanitary and Combined Sewer Configurations on Roanoke, Doremus and Wilson Avenues

B. Plate 2 - Sources of Pollution in Storm Sewer Systems on Blanchard, Lockwood and Brown Streets

C. Plate 3 - Diurnal Sewage Flow Patterns, Roanoke Avenue Outfall Sewer

D. Plate 4 - Diurnal Sewage Flow Patterns, Roanoke Avenue Outfall Sewer

E. Plate 5 - Diurnal Sewage Flow Patterns, Doremus Avenue Interceptor

F. Plate 6 - Diurnal Sewage Flow Patterns, Doremus Avenue Interceptor

G. Plate 7 - Diurnal Sewage Flow Patterns, Wilson Avenue Interceptor

H. Plate 8 - Diurnal Sewage Flow Patterns, Wilson Avenue Interceptor

I. Plate 9 - Flow Rates at the Lister Avenue Tide Gate Chamber

FMG000006

946020012

I. Introduction

Polluted liquid wastes are being discharged into the lower Passaic River from four sewers owned by the City of Newark. These wastes include continuous discharges from the wet weather outfall of the Roanoke Avenue combined sewer, and the Blanchard Street and the Lockwood Street storm sewers, and intermittent discharges from the Brown Street sewer. During dry weather, no flow should be discharged from the Roanoke Avenue outfall and only non-polluted water from the Blanchard Street, Lockwood Street, and Brown Street storm sewers, however, high levels of pollutants have been detected in the dry weather discharges at all four locations. The following ranges of pollutant concentrations and pH have been reported by the Passaic Valley Sewerage Commissioners (PVSC) during the last two-years.

	Pollutant Concentration (ppm)			
Location	TSS	COD	BOD	pH
Roanoke Avenue	5-1428	116-15600	102-6300	2.0-7.3
Blanchard Street	5-1070	51-2815	7-420	1.9-8.2
Lockwood Street	16-3148	119-3408	8-840	3.3-9.2
Brown Street	7-93	42-352	16-135	6.2-9.8

A non-functioning regulator causes the dry weather discharge at Roanoke Avenue. Illegal connections, surface chemical spillage and contaminated groundwater are the sources of pollutants detected in the three storm sewers.

Water from the Passaic River may enter all four sewers with the incoming tide and dilute the pollutant concentration. The pollutants may also be carried upstream of their entering points. Polluted flow from the sewer increases in rate with the falling tide. The highest

FMG000007

946020013

pollutant concentration and flow rates can be expected at low tide. During this study, samples were obtained within the three storm sewers systems at or near the times of low tide. The analytical test results of these samples are included in Appendix A.

FMG000008

946020014

II. SCOPE OF WORK

The PVSC industrial waste surveys for each industry in the tributary area have been reviewed and the probable pollutants in each industrial waste compared with those found in the sewer discharges. All manholes, regulators, tide gates, and inlets have been inspected. The condition and serviceability of sewerage facilities was noted. Connections to manholes and inlets and other sources of flow were located. Spillage and housekeeping procedures at the various industrial facilities were observed. Dry weather flow sampling points were selected, and dry weather flow sampled to isolate sources of pollution entering the storm sewer systems. Where possible, storm and sanitary sewers were smoke tested to locate cross connections, and the sections of storm sewer suspected of having industrial waste connections were inspected with closed circuit television. In some reaches, television inspection was not possible because of physical blockages or waste pools resulting from irregular sewer grades. The condition of the various pipes was determined and the location of improper or suspicious connections noted. The results of these investigations were analyzed and are presented in this report. Recommendations for eliminating all the sources of pollution identified by the described techniques are included.

FMG000009

946020015

III. Roanoke, Doremus and Wilson Avenue Sewers

A. Existing Sewers

The present sewer layout is shown on Plate 1. The manholes on Wilson Avenue are numbered consecutively from W-1 in the Avenue "P" intersection to W-9 on the westerly side of Doremus Avenue. The manholes on Doremus Avenue are numbered consecutively from D-1 on the northerly side of Wilson Avenue to D-28 on the southerly side of the Roanoke Avenue regulator. Changes made in 1951 to accommodate construction of the New Jersey Turnpike included construction of the Avenue "P" regulator on the 54-inch Roanoke Avenue combined sewer at a point approximately 1425 feet upstream of Doremus Avenue. The regulator was planned to divert all dry weather flow to the Doremus Avenue interceptor through a new 24-inch sanitary sewer paralleling the 54-inch Roanoke Avenue combined sewer. The combined sewer downstream of the Avenue "P" regulator was converted to a wet weather outfall. The 18-inch sanitary sewer in the northern portion of Doremus Avenue was connected to the new 24-inch sanitary sewer by an inverted siphon passing under the 54-inch Roanoke combined sewer and its flow bypasses the old Roanoke Avenue regulator which was sealed off and abandoned. Sewage in the Doremus Avenue sewer flows to the Wilson Avenue interceptor and discharges to the PVSC interceptor. All excess wet weather flow in the Roanoke Avenue combined sewer was intended to overflow the Avenue "P" regulator weir and discharge to the Passaic River.

FMG000010

946020016

B. Physical Inspection Findings

(1) Avenue "P" Regulator and Roanoke Outfall Sewer

The Avenue "P" regulator is not functioning. Over two feet of dry, granular sediment blocks the regulator gate chamber and prevents flow between the diversion chamber and the Roanoke Avenue dry weather sewer. As a result, all flow in the Roanoke Avenue combined sewer enters the Passaic River through the Roanoke Avenue outfall. There is no visible evidence of chemical attack or deterioration of the concrete regulator structure. The regulator mechanism is corroded and not functional. A wooden overflow weir, provided in the diversion chamber, is intact. This weir does not cause the upstream pipe to surcharge above the crown in dry weather. It does reduce upstream flow velocity and causes sedimentation. About 0.5 feet of primarily granular sediment was found in the combined sewer above the regulator. This material accumulates in dry weather and the lighter fractions, probably including most organic pollutants, may be flushed toward the Passaic River during relatively small rainfall events. Tests of wet weather flows in other areas indicate the flushing of such solids is accompanied by a large increase in BOD. High tides cause backup, reduce velocities, and cause sediment accumulation in the Roanoke Avenue outfall during dry weather. Some of this material may be carried away by the flow at low tide and some is scoured out by wet weather flows. About 0.2 feet of primarily granular sediment was found in the outfall sewer downstream of the Avenue "P" regulator. The size of this sewer changes to 60-inch at a manhole on the easterly side of Doremus Avenue. Remnants of the brick dam, used to divert flow into the Roanoke Avenue regulator, were observed in this manhole. There are two tide gate chambers in the 60-inch outfall. Both tide gates can swing open but neither can close completely because of sediment. No deterioration of the concrete was visible in

FMG000011

946020017

the tide gate chambers. A lump of bituminous material is partially blocking the discharge of the 60-inch outfall.

(2) Roanoke Avenue Sanitary Sewer

The 24-inch Roanoke Avenue sanitary sewer does not receive any flow at its upstream end because of the previously described blockage in the Avenue "P" regulator gate chamber. The manhole in the 24-inch sanitary sewer immediately downstream of the regulator contains over two feet of dry sediment. The sewer receives flow from the Pitt Consol Chemical Company downstream of that manhole. About 0.5 feet of a black, tar-like sediment was found in the sewer downstream of the Pitt Consol connections. The same black material was observed on the ground surface at the Pitt Consol plant. This material was not evident upstream of the Avenue "P" regulator or in the Roanoke Avenue outfall. Its source is evidently Pitt Consol. Sampling and analysis done jointly by the PVSC laboratory and Pitt Consol also detected chemicals used at the plant in the Roanoke Avenue outfall. However, no connections from Pitt Consol were found in the outfall. Spillage appears to have contaminated the groundwater and some appears to be leaking into the outfall. Groundwater pollution may also be leaking directly into Newark Bay. Groundwater pollution was not investigated since it was outside the scope of this study.

(3) Doremus Avenue Interceptor

The Doremus Avenue interceptor receives flow from the Roanoke Avenue sanitary sewer. Severe sedimentation was noted in this line. The first four lengths of 24-inch pipe upstream from Wilson Avenue (D-1 to D-5) were constructed on a reverse grade and the fifth length (D-5 to D-6) laid flat. The invert at Wilson Avenue is 1.2 feet higher than the low point where the minimum flow depth is greater than half pipe. Further upstream the sewer size changes from 24-inch to 22-inch and then to 20-inch in diameter. Sediment depth in the

FMG000012

946020018

22-inch and 20-inch pipe sections varies with gradient. There is no sediment in the manhole inverts of the steeper sections of 22-inch pipe. As the gradient decreases upstream, sediment depth in the 22-inch line increases to about 0.5 feet. Sediment accumulations in the 20-inch sewer vary from 0.5 feet to 1.4 feet near the Roanoke Avenue regulator. The sediment found in the interceptor is the same black tar-like substance observed in the Roanoke Avenue sanitary sewer. The cover is missing from the fifth manhole (D-5) upstream from Wilson Avenue.

(4) Wilson Avenue Interceptor

Several of the Wilson Avenue interceptor manholes have been covered by construction activities at the PVSC treatment plant. Those manholes that were inspected had clean inverts and were flowing freely. No backup into the Doremus Avenue interceptor was observed. Most of the flow in the Wilson Avenue interceptor is pumped from the Port Newark Area.

(5) Roanoke Avenue Regulator

The Roanoke Avenue regulator was abandoned in 1951. Several feet of dry sediment has accumulated in the regulator chamber. The regulator mechanism is corroded and not functional. The regulator structure appears to be sound. There is no evidence of chemical attack or concrete deterioration. The inlet and outlet pipes are sealed.

FMG000013

946020019

C. Hydraulic Analysis

(1) Flow Measurement Methods

Electronic flow meters were used to obtain diurnal flow patterns in the Roanoke Avenue combined sewer, the Doremus Avenue interceptor and the Wilson Avenue interceptor. These meters were installed at the locations shown on Plate 1. The inverts of the manholes used for monitoring were free of sediment. There was tidal interference at the Roanoke outfall sewer monitoring point during each high tide. No backwater or other flow interference was apparent at the monitoring points on Doremus and Wilson Avenue. The continuous depth readings on the meter charts were converted to flow rates by use of the Manning equation. Dye dilution techniques were not used to measure flow because of the fluorescence present in the waste and the possible deterioration of the dye in the extremely acidic flow. The sewer gradients at the monitoring points were field verified. A friction factor (n) of 0.015 was used in this analysis. The actual friction factors in these sewers may be higher because of joint misalignments and sediment depositions. Flow rate is inversely proportional to friction factor. If the actual friction factor is higher than 0.015, the actual flow rates in the sewers metered will be lower than those computed and the hydraulic capacities of the existing sewers will be lower by the same proportion.

(2) Observed Flow Rates

The flow rates determined in the Roanoke outfall sewer during the period April 24, 1978 to May 30, 1978 are shown on Plates 3 & 4. These rates have been corrected to eliminate tidal effects. Minimum flow rates were found about noon with higher rates in the morning and afternoon. The flow meter data was supplemented by instantaneous measurements obtained before, during, and after the meters were

FMG000014

946020020

installed. Maximum peak dry weather flow rates of 2.2 mgd and minimum flow rates of 0.2 mgd were recorded. The apparent constant flow rate over the weekend (April 29 and April 30) cannot be explained. The flow meter was checked on Thursday April 27 and found to be operational. On Monday, May 1, the battery and chart were changed and the calibration was checked. No errors in calibration or timing were noted and that meter remained in service during the next week. Similar uniform and high discharges occurred at other unusual times for shorter periods. Most of the flow in this sewer is discharged by two companies, Arkansas Chemical and Sun Chemical. Unusual flow patterns may result from variations in processes and work shifts at these plants.

Plates 5 and 6 show diurnal flow patterns recorded in the Doremus Avenue interceptor during the period May 1 to May 5. The flow meter malfunctioned on May 6 and no readings were obtained over the weekend. Weekend data for April 22 and April 23 was included to show the effect of antecedent rainfall and springtides on the flow rate in the sewer. The flow on April 22 was about double that of the preceding dry days. The consistency with which higher flow rates coincide with higher tide periods indicates probable inflow caused by tide related fluctuations. About two inches of rain fell on April 19, saturating the ground and raising the river level. At 8:15 PM on April 22, the tide crested one foot above normal and flow in the sewer increased from below 0.8 mgd to 1.1 mgd. Weekday flow rates generally fluctuate between 0.3 and 0.4 mgd with peaks of 0.5 mgd occurring at the times of high tide. The lowest flow rate measured was approximately 0.2 mgd.

Flow in the Wilson Avenue interceptor is pumped from the combined sewer system in the Port Newark area and discharges by gravity from the Doremus Avenue interceptor. The diurnal flow patterns recorded between May 23 and May 29 are shown on Plates 7 and 8. Rainfall during May was quite heavy, totaling almost 8 inches at

FMG000015

946020021

Newark Airport, or more than 4 inches above normal. However, the rainfall pattern was interesting when correlated with the measured flows. About 1.2 inches of rain fell starting May 4 and extending through May 9; 1.75 inches on May 14 followed by 1.36 inches from May 15 through May 18. On May 24, 2.58 inches of rain fell of which 2.27 inches fell prior to 4 p.m., and on May 25, 0.15 inches fell, mostly in the pre-noon hours. Hence, the measured flow rates on May 23 were preceded by four essentially dry days, while the sharp drop in rates on May 26 occurred less than 12 hours after a major storm. The measured flows of May 23 appear to more nearly represent normal flows while those of May 26 through May 29 reflect the low flows which should be anticipated during a major holiday (Memorial Day) weekend. These flows may largely reflect inflow/infiltration. Tidal variation also appears to influence inflow to this sewer. The effect of rainfall is evident in the measured data on May 24, when the Wilson Avenue interceptor was surcharged. The flow-full capacity of the interceptor at the monitoring point has been estimated as equal to 6.2 mgd. Hence, the flow was greater than that amount. The PVSC interceptor was not continuously monitored but no dry weather backups into Wilson Avenue were observed during spot inspections.

(3) Diversion of Roanoke Flow to PVSC Interceptor

The feasibility of diverting dry weather flow from the Roanoke Avenue combined sewer, as intended, through the Doremus and Wilson Avenue interceptors and into PVSC interceptor was analyzed. It was assumed that the appropriate regulator would be restored to service and that the downstream sewers could be cleaned. The limited metering indicated the peak dry weather flow rates in each sewer could be concurrent. The peak flows in the 20-inch sewer on Doremus Avenue were obtained by instantaneous measurements. The dry weather peak flows (excluding the May 26 flows) recorded are shown here-following:

FMG000016

946020022

Location	Sewer Diameter in Inches	Peak Dry Weather Flow Rate in mgd
Wilson Avenue Interceptor	24	6.2(1)
Doremus Avenue Interceptor	22 & 24	1.1
Doremus Avenue Interceptor	20	0.5
Roanoke Avenue Outfall Sewer	54	2.2

(1) Full Pipe - no surcharge

As indicated by the measured flows between 10 and 11 p.m. of May 25, higher peak dry weather flows in the Wilson Avenue interceptor than those of May 23 may be probable. With a field verified sewer gradient between manholes W-9 and W-8 of 0.0025 ft/ft the flow-full capacity of the Wilson interceptor closely approximates 6.2 mgd. The peak capacity of 4.5 mgd, cited in the PVSC Infiltration/Inflow Analysis, was computed for a monitoring point approximately 1500 feet downstream of manhole W-8. This sewer is now being resurveyed by E.T. Killam Associates to verify both the estimated capacity and amount of I/I.

If the Roanoke Avenue flow was redirected, peak flow rates at least as great as those shown below could occur. These flow rates would exceed the capacity of the Doremus and Wilson Avenue interceptors and cause surcharging in both lines. The hydraulic gradients required to force these flows through the sewers, and the resulting flow velocities are also shown below.

FMG000017

946020023

Interceptor Location	Sewer Size in Inches	Peak Dry Weather Flow Rate in mgd	Grade Line ft/ft	Flow Velocity in fps
Wilson Avenue	24	8.4+	0.0046	4.3
Doremus Avenue	24	3.3	0.00075	1.7
Doremus Avenue	22	3.3	0.0011	1.9
Doremus Avenue	20	2.7	0.0012	1.9

Surcharging to the levels indicated below would be required to pass these flows through the system.

Manhole Number	Height in Feet of Surcharge Above Crown of Pipe	Height in Feet of High Tide Above Flow Surface
W-9	3.6	6.5
D-6	5.8	5.3
D-21	3.2	2.0
D-28	2.1	0.4

It would accordingly be possible to restrict activation of overflow devices to elevations equal to or slightly above the high tide. Due to the proximity of the Passaic River, industrial buildings in the area are located several feet above the high tide elevation. All of the building sewers observed in the manholes on Wilson and Doremus Avenues had drop connections. Buildup of sediment is not anticipated in the building sewers because none of the connections inspected were below the computed levels of surcharge. The height of surcharge is nominal and no damage is anticipated as a result of increased

FMG000018

946020024

internal pressures. Infiltration rates would be reduced as internal pressures increase.

The current cause of bypassing at Roanoke Avenue is the faulty Avenue "P" regulator. However, upon repair of the Avenue"P" regulator, extraneous flows could occasionally overload the restored downstream sewers sufficiently to cause a backup and subsequent overflow at time of peak dry weather flow. The flows in the Roanoke Avenue combined sewers could be transported to the PVSC treatment plant during off-peak hours without reducing the present infiltration rates. This would require storage regulation in existing sewers and could be justified as a pollution abatement measure. Infiltration rates in the Roanoke Avenue combined sewer do not appear to be high. Low flow rates of 0.2 mgd have been recorded. The low flow rate in the Doremus Avenue interceptor was also less than 0.2 mgd. Infiltration in these sewers can not be greater than the low flow rates. Increased flow rates, apparently indicating additional inflow, were recorded during the times of high tide. In the Wilson Avenue interceptor, a low flow rate of 2.1 mgd was recorded. Much of that flow was pumped from the Port Newark area and may largely represent infiltration. Infiltration in the Roanoke Avenue and Doremus Avenue sewers was not investigated in greater detail because of its small magnitude. Investigation of the Wilson Avenue interceptor and the Port Newark area was not within the scope of this study. All of the sewers discussed are included in the PVSC's Infiltration/Inflow Analysis and have been recommended for a sewer system evaluation survey. Any infiltration reduction resulting from this study would reduce the anticipated surcharging in the Wilson and Doremus Avenue interceptors but, it is unlikely that the reduction would be sufficient to prevent all dry weather flow discharges at Roanoke Avenue after flow diversion to the Doremus Avenue Interceptor.

FMG000019

946020025

(4) Diversion Works

Prior to redirecting the Roanoke Avenue flow, the downstream sanitary sewers should be cleaned and either the Avenue "P" or the Roanoke Avenue regulator should be restored to service. It appears preferable to restore the Roanoke Avenue regulator for several reasons. By constructing a collapsible dam or other appropriate water level control device downstream of the regulator, an additional 1450 linear feet of 54-inch pipe would be available to store wet weather and peak dry weather flows for later diversion and treatment. In addition, the apparently contaminated groundwater leaking into the pipe at the Pitt Consol plant would be diverted to treatment, and the 24-inch Roanoke Avenue sanitary sewer would not require cleaning.

The Doremus and Wilson Avenue interceptors are over fifty years old, and the preceding analysis assumes these sewers are structurally sound and can be cleaned. This may be incorrect and the existing sediment in these lines could preclude redirecting the Roanoke Avenue flow, but require the construction of new sewers. A four step program is recommended for placing the system back in full service.

(1) Four lengths of the Doremus Avenue interceptor and one length of the Wilson Avenue interceptor should be cleaned and televised. About 1000 feet of sewer would be inspected at an approximate cost of $6,000. The following pipe sections, designated by the manhole numbers previously described, might be inspected: D-27 to D-28 (20-inch), D-16 to D-17 (22-inch), D-9 to D-10 (22-inch), D-3 to D-4 (24-inch), and W-5 to W-6 (24-inch).

(2) If the lines initially inspected are structurally adequate and in good alignment, the remaining footage may be cleaned and televised. If the Doremus Avenue interceptor requires

FMG000020

946020026

cleaning, it is estimated that 3000 linear feet of sewer would require bucket machine cleaning and 1600 linear feet, hydraulic tool cleaning. No sedimentation was observed in the Wilson Avenue interceptor and no cleaning appears required. The additional cleaning and televising in the second step would cost approximately $38,000.

(3) If the sewers are in acceptable condition, the Roanoke Avenue regulator would be restored to service. The structure would be cleaned, new regulator components installed and plugs removed from the pipes connecting to the regulator. This work would cost approximately $10,000.

(4) A flow regulating structure would be constructed downstream of the regulator at a cost of about $100,000. The cost of the complete restoration program is summarized below:

Initial Cleaning and Inspection	$ 6,000
Complete Cleaning and Inspection	38,000
Regulator Repairs	10,000
Flow Regulation Structure	100,000
Total Cost	$154,000

In addition to providing relief from all dry weather overflows from the Roanoke sewer, this program would also divert to treatment combined sewage which would otherwise discharge untreated during the most frequent rainfalls. If the existing sewers can not be cleaned, new sewer construction would be required to eliminate the bypassing at Roanoke Avenue.

If the dry weather flow in the Roanoke Avenue combined sewer is diverted, the Doremus and Wilson Avenue interceptors will operate in a surcharged condition. Peak flow velocities in the Doremus Avenue interceptor will be below 2.0 feet per second, and velocities at non-

FMG000021

946020027

peak times, lower. Sedimentation should be anticipated in the Doremus Avenue interceptor. This sewer should be inspected on a regular basis to monitor sediment build up. Cleaning on a regular basis may be desirable. Pollutants may be cleaned effectively by low volume water flushing. Heavier sediment would probably require hydraulic tools.

FMG000022

946020028

D. Conclusions and Recommendations

1. If structurally sound and in good alignment, the existing Doremus and Wilson Avenue interceptors should be cleaned and used to transport most dry weather flow in the Roanoke Avenue combined sewer to the PVSC treatment plant. However, relatively rare dry weather overflows may still occur. These may be eliminated by installing a flow routing device in the Roanoke outfall sewer, downstream of Doremus Avenue. The restoration program discussed previously should be implemented. The total cost of cleaning, internal inspections and regulator restoration work should be approximately $54,000. The flow routing device might cost about $100,000. Sedimentation in the Roanoke and Doremus Avenue sewers should be monitored and cleaning operations performed as necessary. This program is recommended as an immediate and temporary solution. It is estimated that the proposed restoration work could be completed within six months. The flow routing device installation should require about eight months for completion.

2. The flow routing device may be part of a long term solution for combined sewer overflow pollution abatement which should be developed in future studies.

3. Reconstruction or paralleling of the existing interceptors will be necessary if their structural condition or alignment precludes redirecting the Roanoke Avenue combined sewer flow. When new sewers are planned, the storage and routing of wet weather combined sewer flow must be considered along with future industrial expansion and sewer system evaluation survey recommendations. Sizing replacement interceptors is not possible with the information

FMG000023

946020029

presently available. For estimating purposes, it was assumed that a 24-inch sewer would be required on Doremus Avenue and a 30-inch line on Wilson Avenue. The depth of these sewers, high groundwater levels and poor foundation conditions will increase construction costs. The proximity of railroad spurs and gas transmission lines to Doremus Avenue will further increase costs. An approximate 1978 construction cost estimate follows.

	Pipe Diameter in Inches	Length of Sewer in Feet	1978 Construction Cost Estimate
Doremus Avenue	24	5400	1,080,000
Wilson Avenue	30	1700	510,000
	Contingencies		410,000
	Total Construction Cost		$2,000,000

Alternatives to the complete reconstruction of both interceptors may be developed when more information is available. For example, the reconstruction of the Doremus Avenue interceptor may be combined with significant infiltration/inflow reduction in the Port Newark Area, thereby allowing the existing Wilson Avenue interceptor to remain in service. Additional studies will be required before the feasible alternatives can be defined and the most cost effective long term solution selected.

4. Industrial pretreatment regulations should be enforced in the tributary area. The low pH of the Roanoke effluent is a threat to the structural integrity of both sewers and accessories. The corrosive atmosphere in this sewer attacked electrical connections on the flow meter and caused several malfunctions. The condition of the pipes is not

FMG000024

946020030

known. It is probable that some deterioration has occurred even though it was not observed in the structures. Area industries should also be requested to review their internal operating procedures and reduce peak discharge rates to the extent possible.

5. Possible groundwater contamination at the Pitt Consol plant should be investigated. The firm should be required to control chemical spillage and, to the extent feasible, clean up spills that have already occurred. The black tar-like material found in the sanitary sewers evidently originates at the Pitt Consol plant. The discharge of this material should be prohibited.

6. The tide gate chambers in the Roanoke Avenue outfall should be cleaned and the gates serviced. The lump of bituminous material should be removed from the discharge point.

FMG000025

946020031

APPENDIX A

Analytical Test
Results

FMG000026

946020032

TABLE 1

ANALYSIS OF STORM SEWER FLOW SAMPLES
(POLLUTANT CONCENTRATIONS IN PPM)

SAMPLING POINT	pH	COD	TOC	BOD	Cl	TURB	TSS	F.C. /100Ml	PO4	FLAM	EXPLO	TKN	NH4-N
B-2	7.5	148	40	36	447	68	30	-	.09	0	0	24	21
B-6	7.7	228	66	46	286	100	102	-	.12	0	0	47	34
LW-0	7.4	216	165	141	340	100	65	-	.13	0	0	101	93
LW-1	8.4	2456	920	819	232	2700	2404	-	.06	0	0	100	67
LS-2	9.0	3176	1040	696	118	4000	2516	-	.19	0	0	93	63
LS-4	8.8	336	115	133	718	320	67	-	.06	0	0	70	66
A-1	8.7	1000	240	387	110	3200	2876	1800	.19	0	0	40	10
E-1	8.7	24	8	0	180	25	18	1000	.04	0	0	2	0
MC-1	7.6	960	60	36	143	89	423	200	.30	0	0	63	61
MC-100	7.3	232	52	51	23	73	56	38000	1.80	0	0	2	0
MC-7	6.8	460	135	138	255	320	89	100	.40	0	0	9	3

SAMPLES TAKEN ON MAY 2, 1978

946020033

TABI

ANALYSIS OF STORM SEWER FLOW SAMPLES
(POLLUTANT CONCENTRATIONS IN PPM)

SAMPLING POINT	pH	COD	TOC	BOD	Cl	TURB	TSS	F.C. /100 Ml	TKN	NH4-N	Grease & Oil
B-2	7.2	412	170	450	307	178	63	1200	19	16	41.6
B-6	7.6	135	56	126	360	344	334	0	20.3	17.1	-
B-7	7.5	150	62	114	331	136	51	200	17	16	0
LS-2	7.2	1119	520	486	335	168	153	0	106	59.4	300.4
LS-4	7.9	408	180	210	517	308	156	0	38	31.5	36.2
LS-7	7.2	1188	520	443	124	3080	2180	500	23.5	7.56	-
LW-1	8.7	6386	560	690	250	344	684	0	217	164	25.6
LW-4	8.2	824	320	455	644	308	204	0	97	71	22.6
LW-7	5.4	5496	1520	1550	1650	142	323	29000	393	184	66.6
A-1	6.9	313	93	169	859	86	152	6800	27	18	-
A-3	7.3	83	19	35	24	45	196	67000	6	.7	14.2
E-1	7.3	44	10	0	13	30	20	0	1.7	0	8.0
E-104	8.6	36	7	0	14	30	1	100	2	.98	.8
MC-1	7.1	48	13	0	141	27	40	1700	.8	.6	4.6
MC-3	6.9	44	14	0	143	18	30	900	0	0	-
MC-7	5.9	622	195	350	14	200	-	250,000	1.96	1.8	-
MC-100	6.7	954	270	480	24	93	103	4700	2.7	0	-
MC-104	7.4	337	96	156	19	86	85	27,000	1.7	0	-

SAMPLES TAKEN ON June 14, 1978

946020034

FMG000028

TABLE 3

ANALYSIS OF METAL CONCENTRATIONS IN STORM SEWER FLOW SAMPLES
(METAL CONCENTRATIONS IN PPM)

SAMPLING POINT	Cd	Ca	Cr	Cu	Fe	Pb	Mg	Mn	Ni	Na	Zn
B-2	-	0	-	-	5.6	-	-	-	-	0	-
B-6	-	0	-	-	28.9	-	-	-	-	0	-
B-7	-	0	-	-	5.39	-	-	-	-	0	-
LS-2	.03	-	.01	2.4	2.4	.1	21	3.4	.1	-	6
LS-4	.02	0	.03	-	6.04	.1	21	1.9	.1	-	8
LW-1	.07	-	.10	-	7.46	2.1	25	3.1	.1	-	26
LW-7	.20	-	.11	-	4.58	1.9	21	2.6	.1	-	12
A-1	-	-	-	-	5.88	.1	-	-	-	-	-
MC-1	-	-	-	-	0	0	-	-	-	-	0

SAMPLES TAKEN ON JUNE 14, 1978

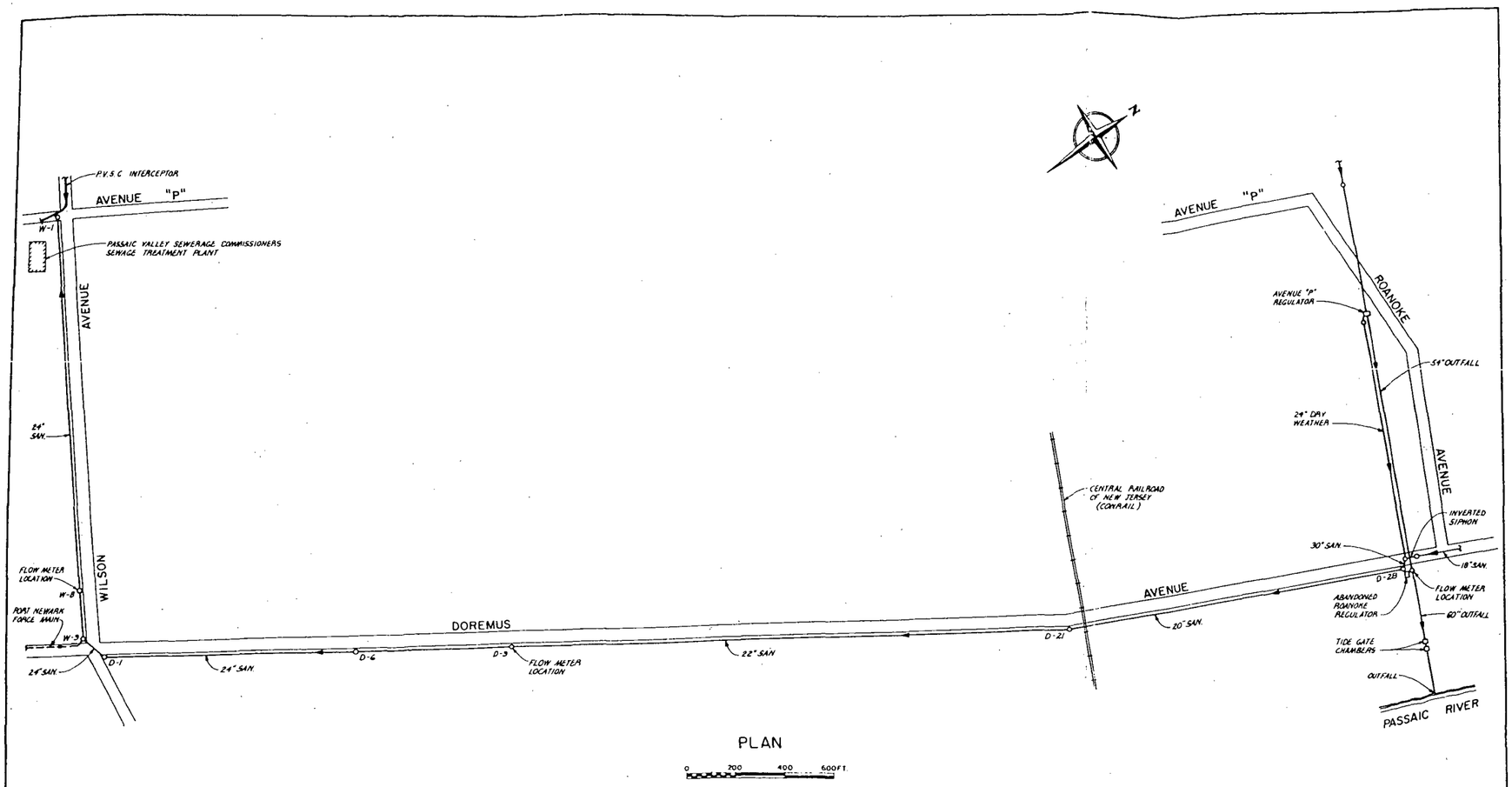
946020035

FMG000029

ILLUSTRATIONS

FMG000030

946020036



NEWARK POLLUTION ABATEMENT FEASIBILITY STUDY

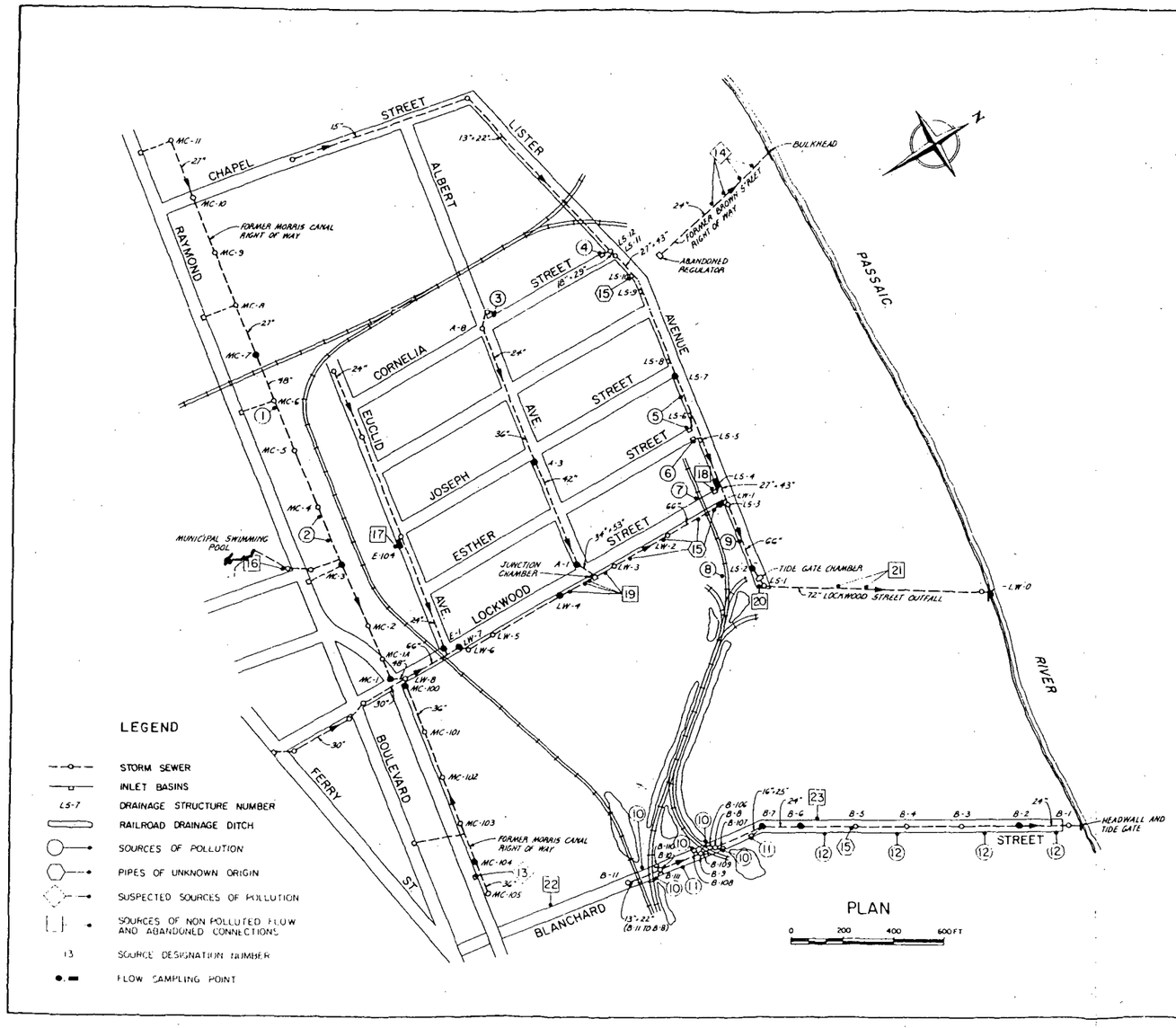
SANITARY AND COMBINED SEWER CONFIGURATIONS ON ROANOKE, DOREMUS AND WILSON AVENUES

CLINTON BOGERT ASSOCIATES
CONSULTING ENGINEERS

PLATE I

FMG000031

946020037



DESIGNATION NUMBER	SOURCE DESCRIPTION
1	INTERMITTENT DUMPING OF PAINT INTO INLET AT ASSOCIATED AUTO BODY AND TRUCKS INC.
2	CAR WASH DRAINS AT SUNOCO STATION CONNECTED TO STORM SEWER.
3	INTERMITTENT, LOW VOLUME DISCHARGE OF OIL AND WATER ENTERING INLET FROM CELLOMER CORP.
4	CONTINUOUS FLOW OF ORANGE VISCOUS CHEMICALS ENTERING INLET FROM CELLOMER CORP.
5	CONTINUOUS FLOW OF BLACK OILY CHEMICALS ENTERING INLETS FROM B-LINE TRUCKING COMPANY.
6	INTERMITTENT, LOW VOLUME DISCHARGE OF OIL AND WATER ENTERING INLET FROM FISKE BROTHERS REFINING COMPANY.
7	INTERMITTENT DISCHARGE OF BLACK OILY CHEMICALS ENTERING INLET FROM FISKE BROTHER REFINING COMPANY RAILROAD SIDING.
8	CHEMICAL SPILLAGE AT ATLAS REFINERY INC. RAILROAD SIDING CONTAMINATING GROUND AND ENTERING RAILROAD DRAINAGE DITCHES DURING WET WEATHER.
9	RAILROAD DRAINS AND OIL SEPARATOR AT ATLAS REFINERY INC. CONNECTED TO STORM SEWER.
10	INTERMITTENT FLOW OF WATER AND CHEMICALS ENTERING INLETS FROM RAILROAD DRAINAGE DITCHES.
11	FREQUENT OVERFLOW OF SEWAGE FROM SANITARY MANHOLES ENTERING INLETS.
12	OCCASIONAL OVERFLOW OF SEWAGE FROM SANITARY MANHOLES ENTERING INLETS.
13	CONTINUOUS DISCHARGE FROM NEWARK BOXBOARD COMPANY.
14	INLETS AND DRAINS AT SHERWIN WILLIAMS COMPANY CONNECTED TO STORM SEWER.
15	PIPES OF UNKNOWN ORIGIN.
16	CONTINUOUS FLOW FROM MUNICIPAL SWIMMING POOL (SEASONAL).
17	CONTINUOUS FLOW OF COOLING WATER ENTERING INLET FROM REDDAWAY MANUFACTURING COMPANY.
18	INTERMITTENT DISCHARGE OF COOLING WATER ENTERING INLET FROM FISKE BROTHERS REFINING COMPANY.
19	ROOF DRAIN CONNECTIONS FROM THE MESSINGER WAREHOUSE AND TRUCKING COMPANY AND ABANDONED INLET CONNECTION.
20	ABANDONED RAILROAD DRAIN CONNECTED TO MANHOLE LS-1
21	ROOF DRAIN CONNECTIONS FROM THE BENJAMIN MOORE COMPANY.
22	CONTINUOUS, LOW VOLUME DISCHARGE OF COOLING WATER ENTERING GUTTER FROM NEWARK BOXBOARD COMPANY.
23	INTERMITTENT DISCHARGE OF GROUNDWATER ENTERING GUTTER FROM SUMP PUMP AT FAIRMOUNT CHEMICAL COMPANY.

NEWARK POLLUTION ABATEMENT FEASIBILITY STUDY

SOURCES OF POLLUTION IN STORM SEWER SYSTEMS ON BLANCHARD, LOCKWOOD AND BROWN STREETS

CLINTON BOGERT ASSOCIATES
CONSULTING ENGINEERS

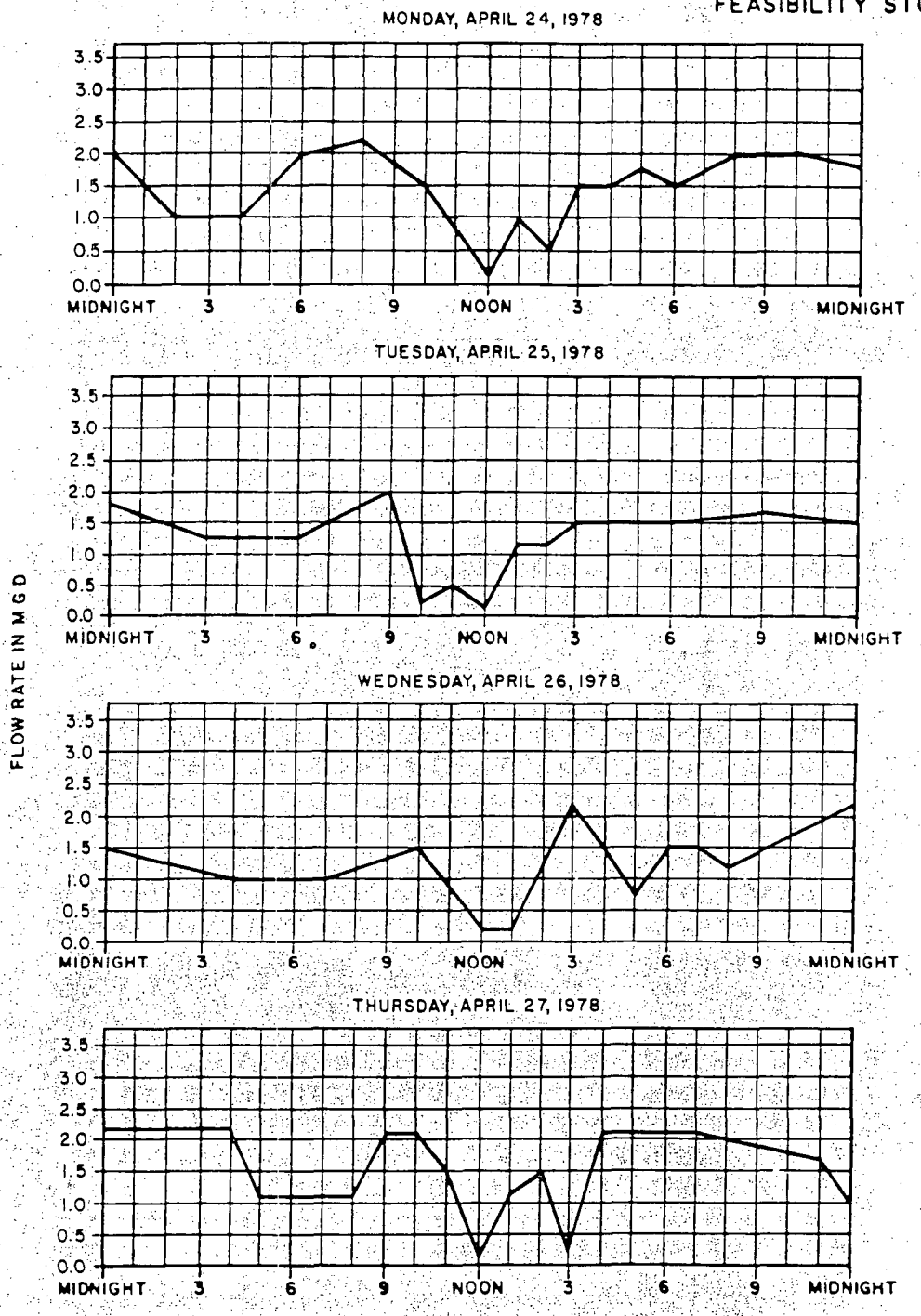
PLATE 2

946020038

FMG000032

CITY OF NEWARK

POLLUTION ABATEMENT
FEASIBILITY STUDY



DIURNAL SEWAGE FLOW PATTERNS

ROANOKE AVENUE OUTFALL SEWER

DIETZGEN 54841

CLINTON BOGERT ASSOCIATES

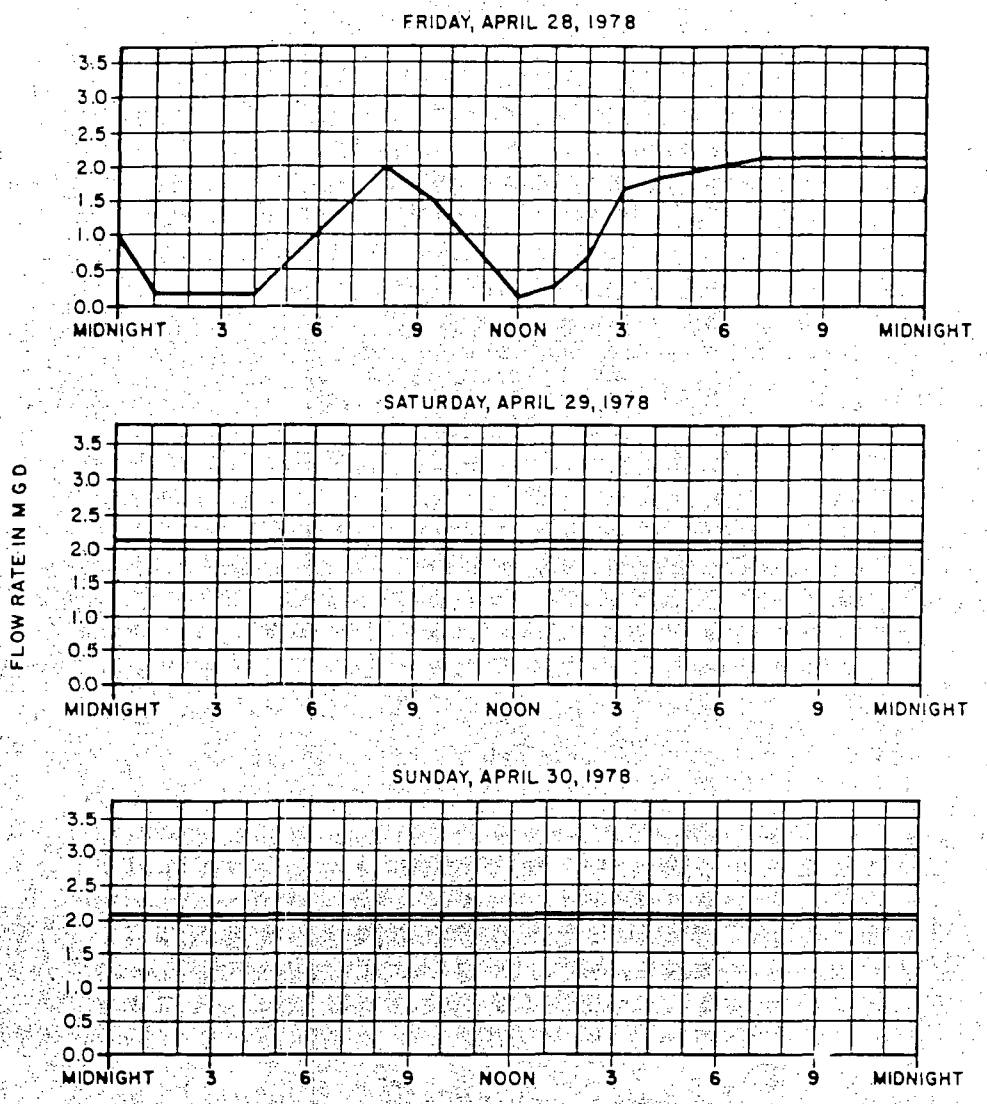
PLATE 3

FMG000033

946020039

CITY OF NEWARK

POLLUTION ABATEMENT
FEASIBILITY STUDY



DIURNAL SEWAGE FLOW PATTERNS

ROANOKE AVENUE OUTFALL SEWER

DIETZGEN 3441

CLINTON BOGERT ASSOCIATES

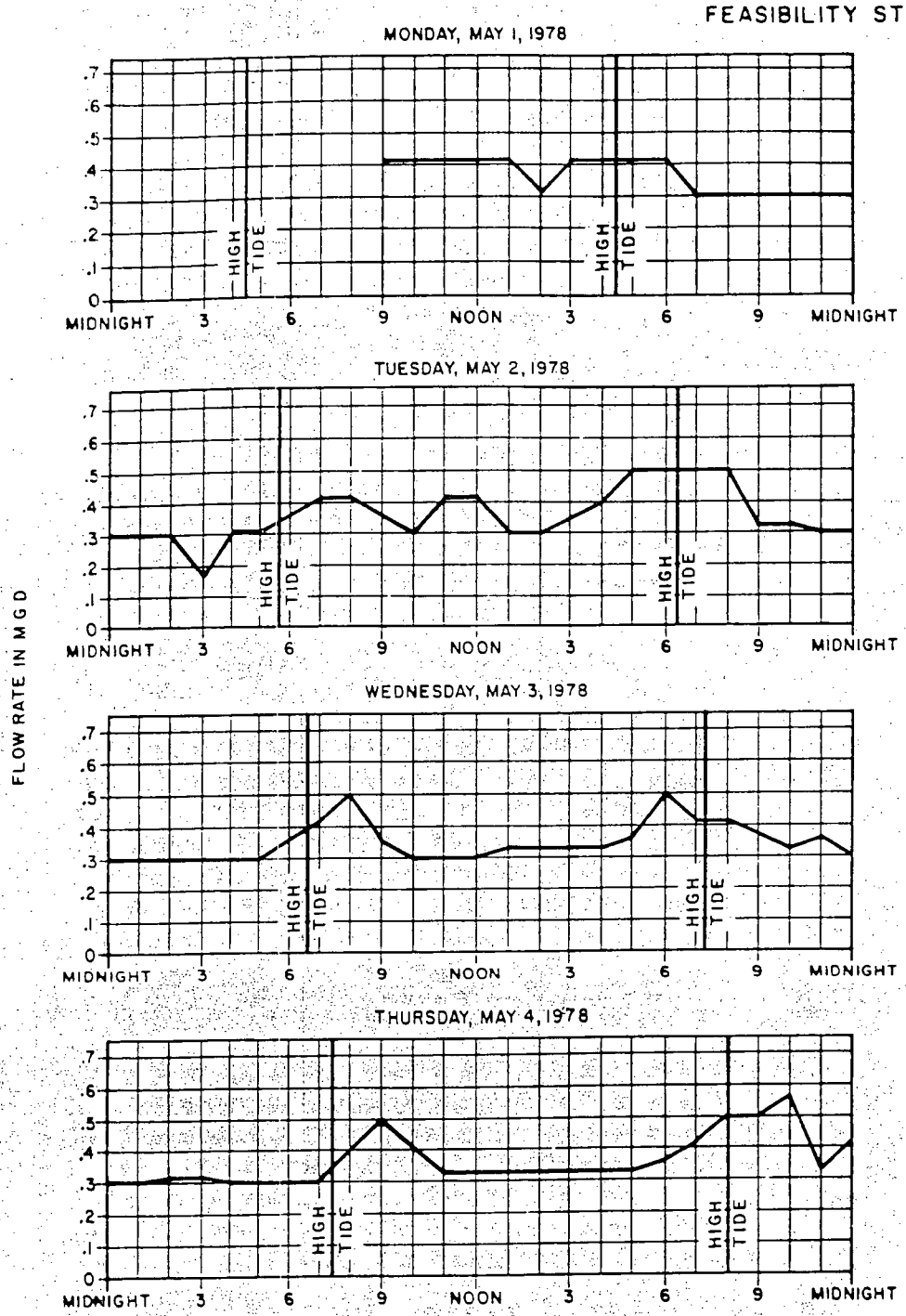
PLATE 4

FMG000034

946020040

CITY OF NEWARK

POLLUTION ABATEMENT
FEASIBILITY STUDY



DIURNAL SEWAGE FLOW PATTERNS

DOREMUS AVENUE INTERCEPTOR

DIETZGEN 54841

CLINTON BOGERT ASSOCIATES

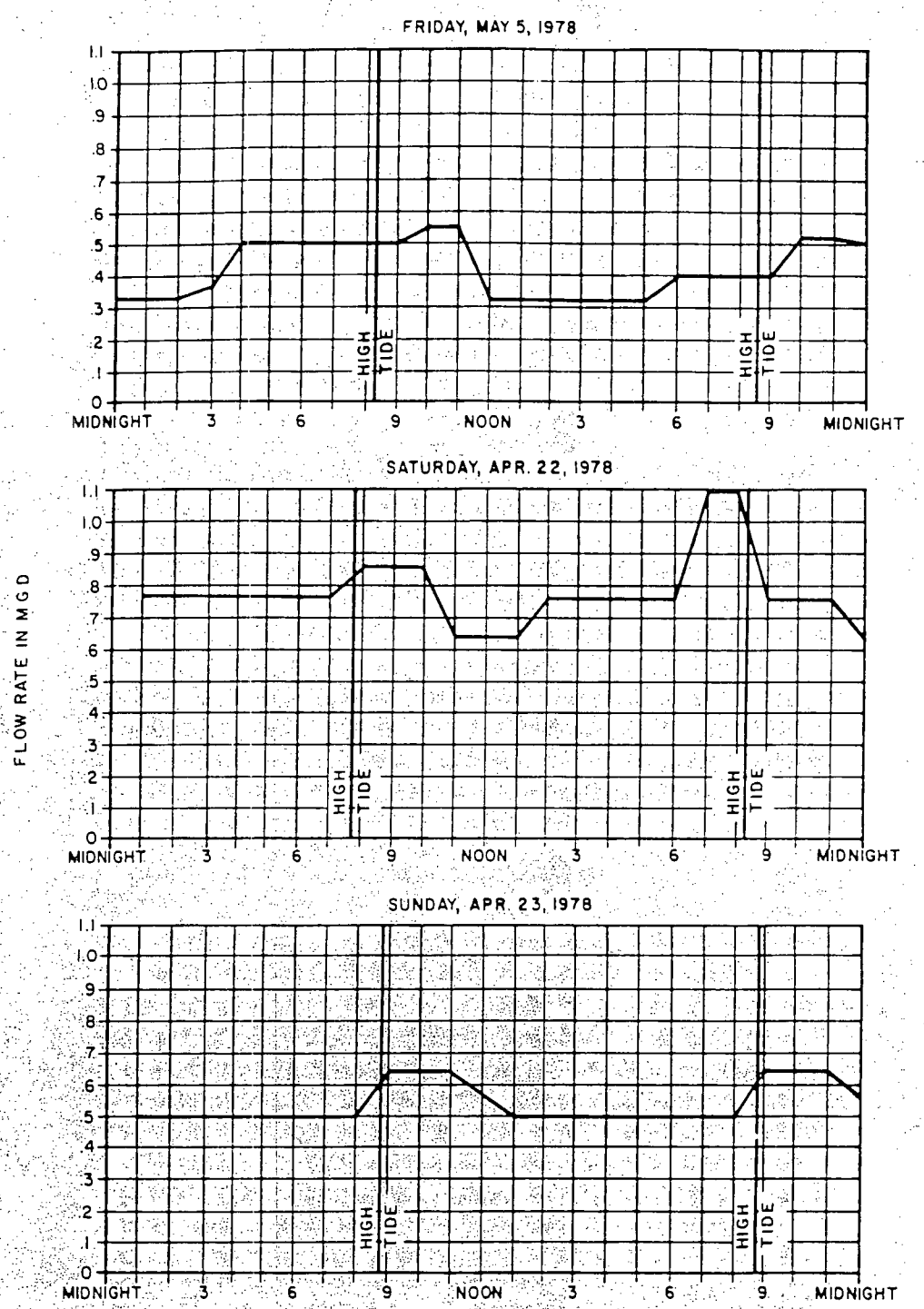
PLATE 5

FMG000035

946020041

CITY OF NEWARK

POLLUTION ABATEMENT
FEASIBILITY STUDY



NOTES:
1-FLOW METER MALFUNCTIONED ON 5/6
2-SPRING HIGH TIDE AT 8:15 P.M. ON 4/22

DIURNAL SEWAGE FLOW PATTERNS

DOREMUS AVENUE INTERCEPTOR

DIETZGEN 5481

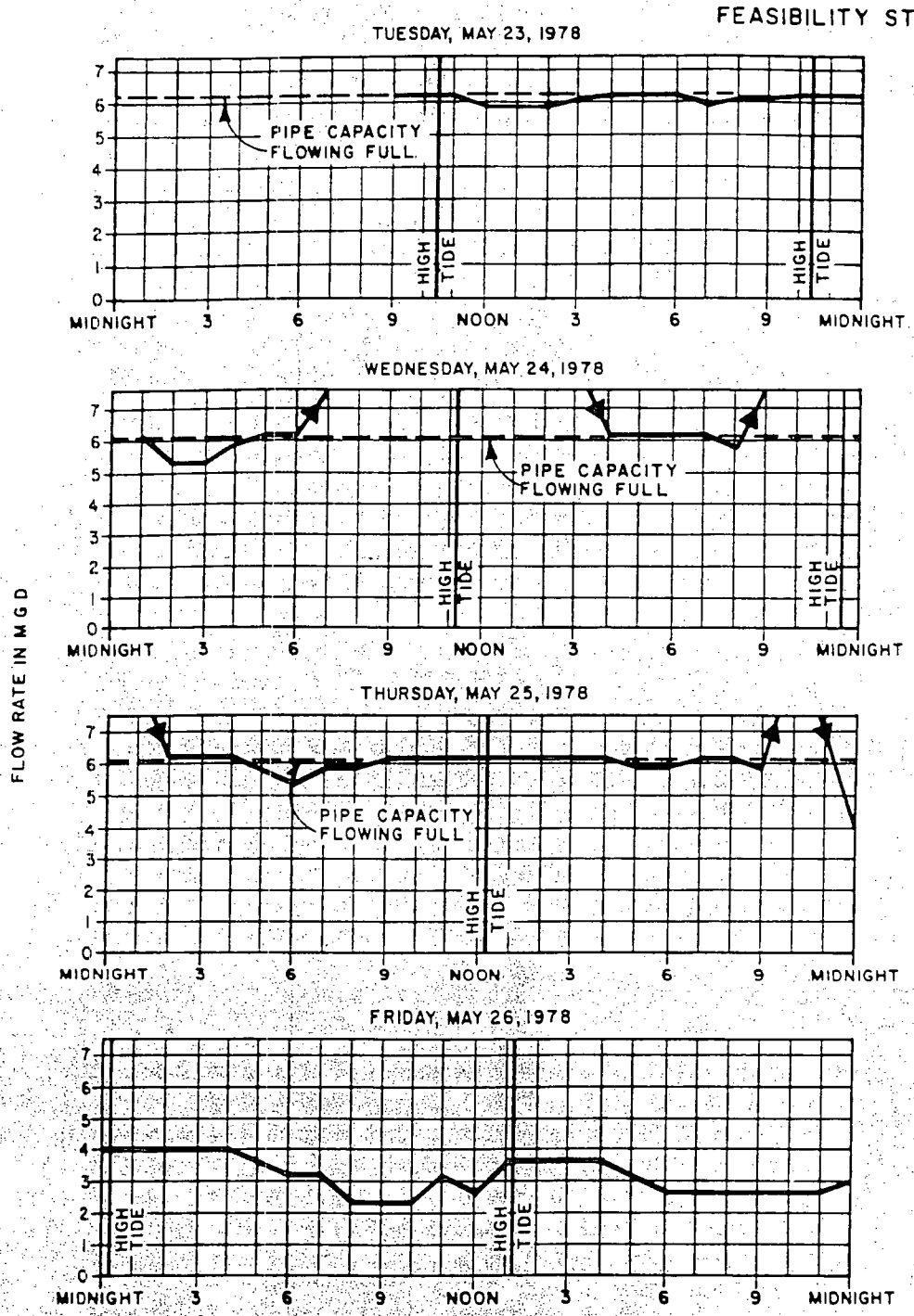
CLINTON BOGERT ASSOCIATES

PLATE 6

FMG000036

946020042

CITY OF NEWARK
POLLUTION ABATEMENT
FEASIBILITY STUDY



NOTES:
1-RAINFALL OF 2.75" ON 5/24 AND 5/25
2-FLOW RATES ABOVE 6.2 M G D INDICATE SURCHARGED PIPE

DIURNAL SEWAGE FLOW PATTERNS

WILSON AVENUE INTERCEPTOR

DIETZGEN 54841

CLINTON BOGERT ASSOCIATES

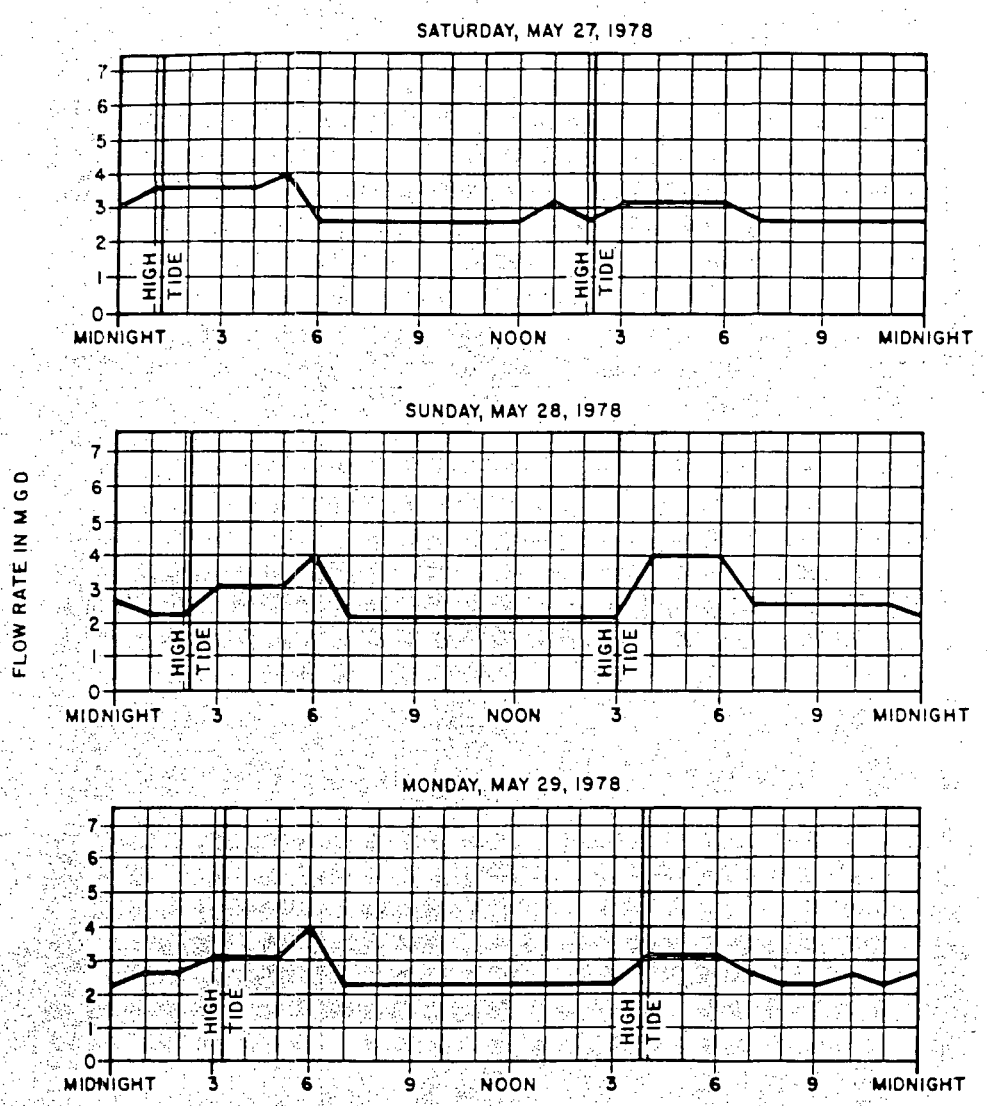
PLATE 7

FMG000037

946020043

CITY OF NEWARK

POLLUTION ABATEMENT
FEASIBILITY STUDY



DIURNAL SEWAGE FLOW PATTERNS

WILSON AVENUE INTERCEPTOR

DIETZGEN 54841

CLINTON BOGERT ASSOCIATES

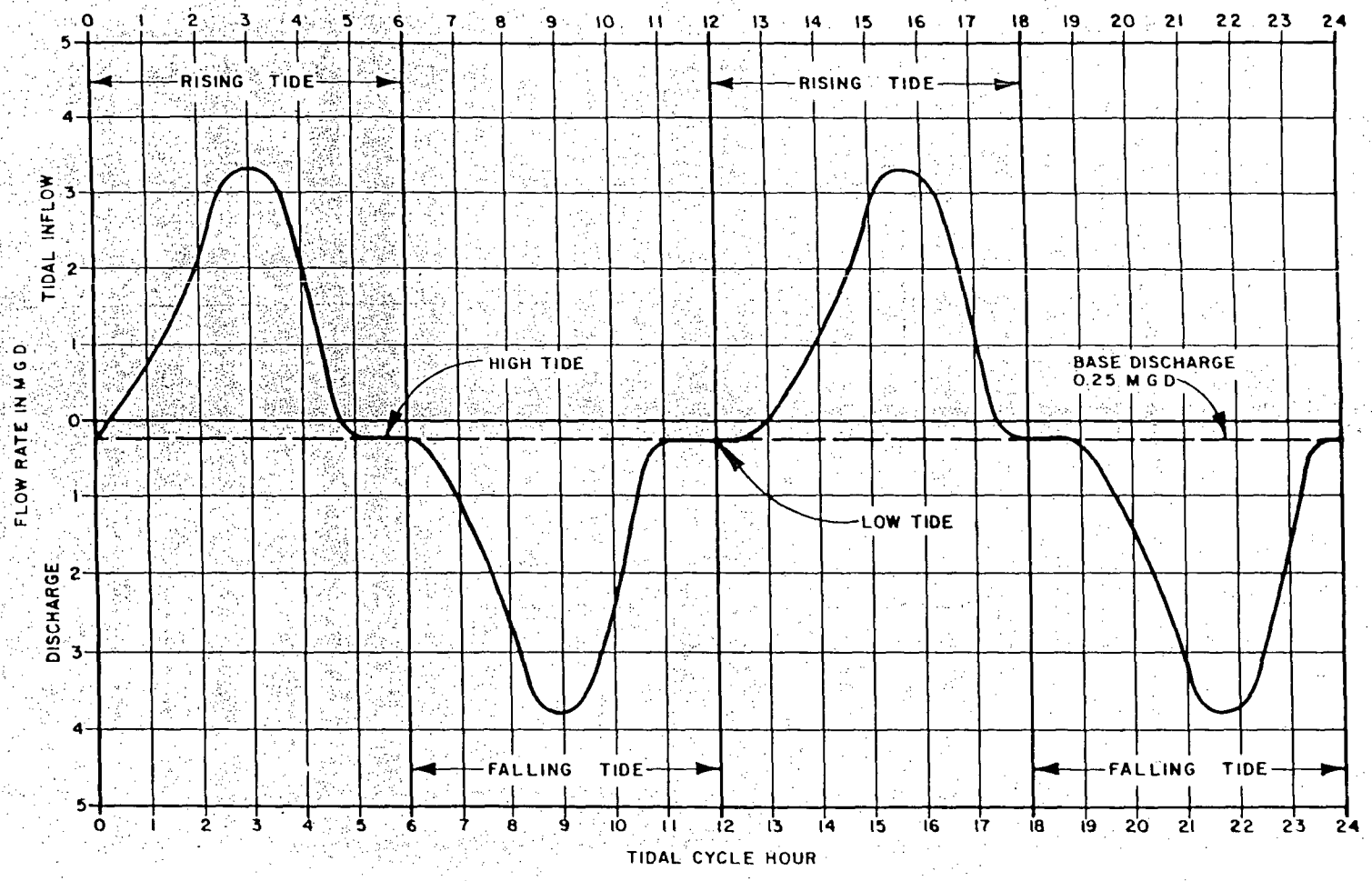
PLATE 8

FMG000038

946020044

DIETZGEN 54841

CLINTON BOGERT ASSOCIATES



FLOW RATES AT THE
LISTER AVENUE TIDE GATE CHAMBER

CITY OF NEWARK
POLLUTION ABATEMENT
FEASIBILITY STUDY

PLATE 9

946020045

FMG000039

POLLUTION ABATEMENT PLAN

NEWARK, NEW JERSEY

1975

Prepared for

CITY OF NEWARK
DEPARTMENT OF PUBLIC WORKS

Prepared by

PURCELL ASSOCIATES
ENGINEERS • ARCHITECTS • PLANNERS

946020047

FMG000040

TABLE OF CONTENTS

CHAPTER	TITLE	
	INTRODUCTION	i
I	STUDY DETERMINANTS	
	General Scope of Study	I-1
	Project History	I-1
	Passaic River and Newark Bay	I-3
	The Peripheral Ditch	I-3
	Present Land Use	I-4
	General Topography and Geology	I-5
II	COMBINED SEWERAGE DISTRICTS	
	Passaic Valley Sewer Commissioners	II-2
	South Side Interceptor	II-3
	Flood Prone Areas	II-4
	Silted Sewers	II-4
III	SANITARY FLOW INVESTIGATION	
	Population	III-1
	Design Flows	III-2
	Present Flow Analysis	III-3
	Sewer Gaging Program	III-5
IV	HYDROLOGIC INVESTIGATION	
	Newark Land Coverage and Drainage Pattern	IV-2
	Interim Report Hydrology	IV-3
	NEWARK DRAINAGE MODEL (NDM)	
V	Rainfall Losses	V-3
	Surface Runoff and Routing	V-4
	Gutter Routing	V-6
	Lateral Sewer Routing	V-6
	Interceptor Sewer Routing	V-7
	Sewer Gaging Program	V-7
	(NDM) Verification Using E.P.A. Storm Water Management Model	V-8
VI	DESIGN CRITERIA	
	Basis of Design of Sewer Separation	VI-1
	Basis of Storm Water Design	VI-1
	Basis of Cost Estimate	VI-2
VII	SEWERAGE SYSTEM IMPROVEMENTS	
	Peddie District	VII-1
	Queen and Waverly Districts	VII-5
	Adams and Wheeler Districts	VII-10
	Industrial River District	VII-14
	Saybrook Basin	VII-19
	Millbrook Basin	VII-22
	Airport Basin	VII-25
VIII	COMBINED SEWERAGE TREATMENT	
	Introduction	VIII-1
	Frequency of Overflows	VIII-6
	Treatment Methods	VIII-7
	Cost Analysis	VIII-8
IX	INDUSTRIAL WASTE SURVEY	
	Introduction	IX-1
	Recommendations	IX-3
	BIBLIOGRAPHY	

946020048

FMG000041

LIST OF TABLES

Table No.	Title	
I- 1	Basin Land Use	I-5
II- 1	Existing Sewer Connections To PVSC Interceptors	Following II-2
III- 1	Wastewater Flow Record To South Side Interceptors	III-8
- 2	Average Daily Flow	Following III-8
- 3	Sanitary Sewer Peaking Factor Correlations	Following III-8
IV- 1	Newark Land Coverage	IV-2
- 2	Characteristics of Tropical Storms	IV-4
VII - 1	Cost Estimate - Peddie District Sewer Separation	VII-2
- 2	Peddie District - Existing Sewer Capacity Vs. Design Flow	VII-3
- 3	Peddie District - Recommended Improvement Plan	VII-4
- 4	Cost Estimate - Queen District Sewer Separation	VII-6
- 5	Cost Estimate - Waverly District Sewer Separation	VII-6
- 6	Queen District - Existing Sewer Capacity Vs. Design Flow	VII-7
- 7	Queen District - Recommended Improvement Plan	VII-8
- 8	Waverly District - Existing Sewer Capacity Vs. Design Flow	VII-9
- 9	Waverly District - Recommended Improvement Plan	VII-9
-10	Cost Estimate - Adams and Wheeler Districts Sewer Separation	VII-11
-11	Adams and Wheeler Districts - Existing Sewer Capacity Vs. Design Flow	VII-12
-12	Adams and Wheeler Districts - Recommended Improvement Plan Cost Estimate	VII-13
-13	Industrial River District - Cost Estimate - Sewer Separation	VII-14
-14	Southern Portion of Industrial River District - Storm Sewer Cost Estimate	VII-15
-15	Southern Portion of Industrial River District - Storm Sewers Designed in Conjunction With The Ideal Toy Company Project - Cost Estimate	VII-17
-16	Cost Estimate - Lehigh Valley Railroad Alignment	VII-17
-17	Northern Portion of Industrial River District - Storm Sewer Cost Estimate	VII-18
-18	Saybrook Basin - Cost Estimate - Sanitary Sewer	VII-20
-19	Ferry District - Existing Sewer Capacity Vs. Design Flow	VII-21
-20	Raymond District - Existing Sewer Capacity Vs. Design Flow	Following VII-21
-21	Raymond District - Storm Sewer Cost Estimate	Following VII-21
-22	Cost Estimate - Millbrook Basin Sanitary Sewer Separation Plan	VII-23
-23	Peripheral Ditch - 3000 c.f.s. Backwater Profiles	VII-27
-24	Effect of Tide Level On Peripheral Ditch Water Surface Profile	VII-28
-25	Outfall Ditches Cost Estimate	VII-31
VIII- 1	Storm Water Quality - Peddie Street Diversion Chamber	Following VIII-1
VIII- 2	Random Sample Water Quality	Following VIII-3
VIII- 3	Cost Estimate For Complete Sewer Separation Contributing To Treatment Plant	VIII-8
VIII- 4	Preliminary Cost Estimate For Treatment For Combined Sewage	VIII-9

946020049

FMG000042

LIST OF EXHIBITS

EXHIBIT NO.	TITLE	PAGE NO.
1	Drainage Limits	Follows p. ii
2	Major Facilities	Follows p. ii
3	Land Use Plan	p. I-4
4	Boring Locations	p. I-6
5	Subsurface Section A-A (1)	Follows p. I-6
6	Subsurface Section A-A (2)	Follows p. I-6
7	Subsurface Section A-A (3)	Follows p. I-6
8	Subsurface Section B-B	Follows p. I-6
9	Subsurface Section C-C	Follows p. I-6
10	Existing Separate Sewer Systems	p. II-1
11	Flood Prone Areas	p. II-4
12	Silted Sewers	p. II-5
13	Brick Sewers	Follows p. II-5
14	Population Study	p. III-1
15	Sanitary Sewer Flow Peaking Factor Chart	p. III-3
16	Typical Gage Chart	p. III-5
17	Two Year Frequency Rainfall Hyetograph	p. IV-1
18	Typical Mixed Land Use	Follows p. IV-2
19	Typical Intense Land Use	Follows p. IV-2
20	Typical Drainage Pattern	Follows p. IV-2
21	Mass Rainfall Curves	p. IV-3
22	Project Rainfall Frequency Duration Curve	p. IV-3
23	Project Rainfall Time to Peak Ratios	p. IV-4
24	One Year Frequency Rainfall Hyetograph	p. IV-4
25	Five Year Frequency Rainfall Hyetograph	Follows p. IV-4
26	Ten Year Frequency Rainfall Hyetograph	Follows p. IV-4
27	Fifty Year Frequency Rainfall Hyetograph	p. IV-5
28	Project Rainfall Mass Curves	Follows p. IV-5
29	Intense Storms	Follows p. IV-5
30	Queen Outlet 2 Year Frequency Hydrograph	p. V-1
31	Standard Infiltration - Capacity Curves for Previous Surface	p. V-3
32	Hydrograph Verification - 272 Acres	p. V-9
33	Hydrograph Verification - 442 Acres	Follows p. V-9
34	Hydrograph Verification - 713 Acres	Follows p. V-9
35	Conceptual Design Curves 2 Year Hydrograph	p. VI-2
36	Existing Sewers Peddie District	Follows p. VII-1
37	Existing Utilities Peddie District	Follows p. VII-1
38	Existing Utilities Peddie District	Follows p. VII-1
39	Separation Plan Peddie District	Follows p. VII-2
40	Proposed Sewers Peddie District	Follows p. VII-2
41	Peddie Street Profile	Follows p. VII-2
42	Springfield Avenue Profile	Follows p. VII-4
43	Bergen Street Profile	Follows p. VII-4
44	Avon Avenue Profile	Follows p. VII-4
45	Existing Sewers Queen District	Follows p. VII-5
46	Existing Utilities Queen District	Follows p. VII-5
47	Existing Utilities Queen District	Follows p. VII-5
48	Separation Plan Queen District	Follows p. VII-5
49	Proposed Sewers Queen District	Follows p. VII-8
50	Van Duyne Street Profile	Follows p. VII-8
51	Queen Outfall Profile	Follows p. VII-8
52	McClellan Street Storm Outfall Sewer Profile	Follows p. VII-8
53	Existing Sewers Adams District	Follows p. VII-10
54	Existing Utilities Adams District	Follows p. VII-10
55	Existing Utilities Adams District	Follows p. VII-10
56	Separation Plan Adams District	Follows p. VII-11
57	Proposed Sewers Adams District	Follows p. VII-13
58	Avenue A Profile	Follows p. VII-13
59	Avenue C Profile	Follows p. VII-13
60	McWhorter Street Profile	Follows p. VII-13
61	Existing Sewers Industrial District	Follows p. VII-14
62	Existing Utilities Industrial District	Follows p. VII-14
63	Existing Utilities Industrial District	Follows p. VII-14
64	Separation Plan Industrial District	Follows p. VII-14
65	Proposed Sewers Industrial District	Follows p. VII-16
66	Existing Sewers Saybrook Basin	Follows p. VII-19
67	Existing Utilities Saybrook Basin	Follows p. VII-19
68	Existing Utilities Saybrook Basin	Follows p. VII-19
69	Separation Plan Saybrook Basin	Follows p. VII-20
70	Proposed Sewers Saybrook Basin	Follows p. VII-20

946020050

FMG000043

EXHIBIT NO.	TITLE	PAGE NO.
71	Market Street Profile	Follows p. VII-20
72	Existing Sewers Millbrook Basin	Follows p. VII-22
73	Existing Utilities Millbrook Basin	Follows p. VII-22
74	Existing Utilities Millbrook Basin	Follows p. VII-22
75	Separation Plan Millbrook Basin	Follows p. VII-23
76	Existing Sewers Airport Basin	Follows p. VII-25
77	Existing Utilities Airport Basin	Follows p. VII-25
78	Existing Utilities Airport Basin	Follows p. VII-25
79	Recorded Hydrograph October 6-9, 1972	Follows p. VII-27
80	Outfall Ditch Profile	Follows p. VII-28
81	Plant Layout Spiralift Pump	Follows p. VII-30
82	Plant Layout Propeller Pump	Follows p. VII-30
83	Pilot Plant Schematic	Follows p. VII-30
84	Existing Sewers Bay District	Follows p. VII-31
85	Existing Utilities Bay District	Follows p. VII-31
86	Existing Utilities Bay District	Follows p. VII-31
87	Existing Sewers Vailsburg District	Follows p. VII-31
88	Existing Utilities Vailsburg District	Follows p. VII-31
89	Existing Utilities Vailsburg District	Follows p. VII-31
90	Pollutograph Storm June 16-17, 1972	p. VIII-2
91	Pollutograph Storm June 22, 1972	p. VIII-2
92	Typical Pollutograph	p. VIII-3
93	Rainfall Intensity Distribution	p. VIII-4
94	Pollutant Removal Efficiency	p. VIII-5
95	Diversion Chamber Overflow Probability	p. VIII-6
96	Location of Sewage Treatment Plants	p. VIII-10

946020051

FMG000044

INTRODUCTION

The City of Newark is located on the Passaic River at the river's confluence with Newark Bay. These waters that form 50 percent of Newark's boundaries were instrumental in the City's foundation and have been a prime factor in much of the City's growth. In the early years of our nation all heavy transportation was done on the water. The fact that water transport is still highly significant is demonstrated by the extremely rapid growth of Port Newark in the last ten years.

Much of the tidal lands along the river and bay have been filled and developed for industry, commerce and transportation. The once green hills above the meadows have been covered with some of the most dense residential and commercial development in the Country resulting in a present population of about 390,000. Commercial and industrial growth continues in the low land areas even today as man has discovered a variety of ways to build upon what previously could be called marginal land.

Early in the development of Newark the flow in both the Passaic River and the smaller streams was sufficient to assimilate the domestic and industrial wastes which were discharged into them. In the mid-1800's as the intensity of development increased, it became necessary to enclose the streams in conduits to provide adequate roadways and to protect private property from flooding. The sanitary wastes which had been discharged into the streams were also diverted into these same conduits. During dry weather these conduits carried primarily sanitary waste and discharged it into the river and meadows. During wet weather the conduits carried both storm runoff and the sanitary discharges.

The dry weather flow, consisting primarily of sanitary sewage, eventually caused pollution problems in the river and bay. This led to the construction of interceptor sewers and a treatment plant by the Passaic Valley Sewer Authority to control the pollution of Newark Bay during dry weather periods.

In Newark the existing combined sewers were connected to the Passaic Valley Interceptor by regulating chambers. The dry weather flow was carried into the Interceptor and the storm flow was diverted into the river and tidal marshes. Storm flow diversion was necessary because runoff greatly exceeded the capacities of the Interceptor Sewer and Treatment Plant.

The Passaic Valley Interceptor Sewer parallels the Passaic River from Paterson to Newark and collects dry weather sanitary flow for this 25 mile reach of the River. In spite of this, the Passaic River has been labeled one of the ten dirtiest rivers in the country. Industrial discharge, inadequately treated municipal sewage, litter, and combined sewer overflows are severe enough to merit national attention.

The City of Newark is drained principally by the combined sewers constructed between 1830 and 1930. When it rains, tremendous volumes of combined sewage are discharged into the Passaic River and the tidal marshes. These combined sewer overflows are presently the prime pollution source from the City of Newark. The intensity of development has tremendously increased the quantity of both the storm runoff and the pollutants which it carries through the combined sewers into the receiving waters. The increased storm flows have caused severe flooding problems particularly in the low areas. For example, the Frelinghuysen Avenue area is one of the most frequently flooded areas in the City. As little as one half inch of rainfall, which occurs several times a year, causes several feet of flooding along this heavily traveled principal roadway and adjacent property. The development of the upstream watershed, however, is not solely responsible for this condition; aborted channels, downstream development and continually poor maintenance of channels and appurtenant structures are other causes.

Port Newark and the Newark Airport have been reclaimed from a large tidal marsh previously called Newark Meadows. Significant areas along the lower Passaic River have also been reclaimed for industrial use. The ground elevations of these marshes prior to reclamation ranged from +5 to -5 feet, mean sea level, for a distance of up to 3 miles from open water. Prior to development when high tides and heavy rains occurred, the entire marsh land would become submerged. With the filling of the marshes for industrial development and transportation facilities, the drainage has been confined to channels. Frelinghuysen Avenue is located three miles west of the bay and its elevation ranges from 5.5 to 12 feet above mean sea level. Tide levels have been recorded as high as 7.9 feet in Newark Bay. Thus, it is apparent that storm water cannot flow by gravity into the bay against a high tide. To provide adequate drainage for Frelinghuysen Avenue and other low areas around the Newark Meadows, a storm water pump station has been pro-

946020052

FMG000045

posed.[13] This pump station and associated drainage work will greatly reduce the frequency of flooding in these low areas.

In the past decade it has been determined that the pollutional effect of combined sewer wet weather overflows is substantial, and both the New Jersey State Department of Environmental Protection, and the Federal Environmental Protection Agency are opposed to the discharge of combined wastes into receiving waters. Until recently the solution has been to construct sewer systems such that all sanitary flows are conveyed to a treatment plant at all times and storm runoff is discharged directly into the receiving waters. Recently, it has been found that storm runoff from urban areas also has a high pollution load. Because of this, treatment of storm water runoff from urban areas is being investigated by the Federal Government. It is possible that in the not too distant future Federal laws could be passed establishing quality criteria for storm runoff which could, in turn, require storm water treatment.

There are two possible ways to meet the present requirements of the State and Federal Governments for the elimination of the existing combined sewer overflows. Existing State and Federal regulations could be met by installing a separate sanitary sewer system which would be connected directly to the Passaic Valley Interceptor Sewers and Treatment Plant. If this alternative is followed, it is still possible that a storm water treatment facility could be required in the future.

The second alternative that will meet the existing State and Federal regulations is the construction of a combined sewer overflow treatment facility. During storm runoff periods the treatment facility would remove the majority of the pollutants from the combined flow prior to its discharge into the receiving water. The construction of a combined sewer treatment facility would also meet the probable criteria that might be established for storm runoff thereby eliminating a double expenditure. A complete analysis of both schemes will be presented in this report.

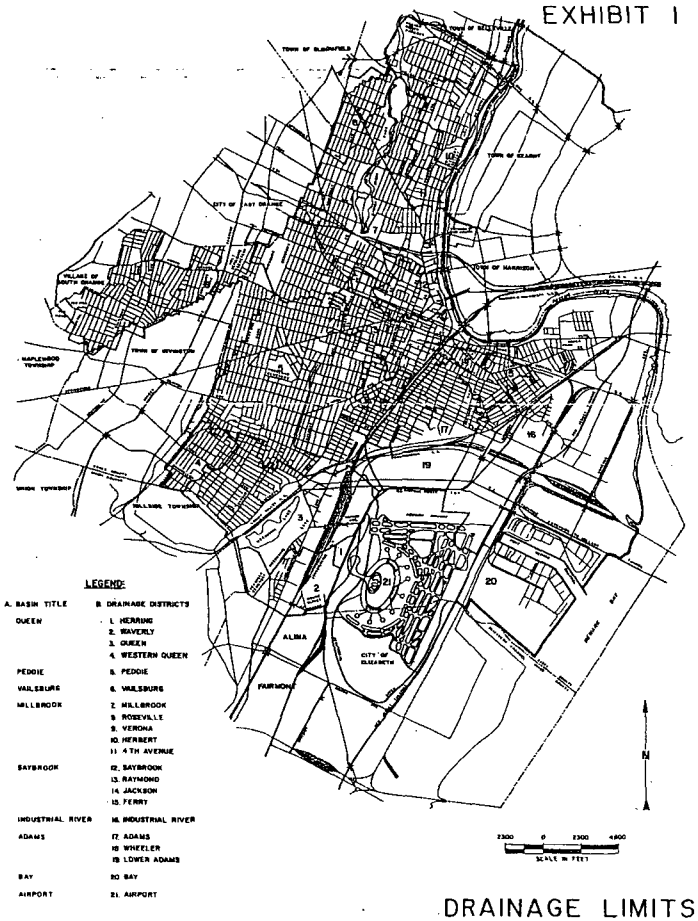
The severe flooding along Frelinghuysen Avenue makes it essential that drainage improvements, including the storm water pump station, be constructed at the earliest possible date. To expedite that vital project, an Interim Report was released in April, 1972. That report, the contents of which are herein included, presented a Basin Master Plan for the area tributary to the Newark Meadows. That plan has been approved by the Newark City Council, the Federal Environmental Protection Agency and the State of New Jersey, Department of Environmental Protection, and the initial projects have been constructed. The drainage basins which were included in the Interim Report were the Peddie, Queen, Waverly, Wheeler, Adams and Airport.

In summary, there is a two-fold problem for which this Study and Analysis will present a solution: (1) the extensive and frequent flooding must be controlled, and (2) the pollution caused by the wet weather overflows of the combined sewers must be abated.

946020053

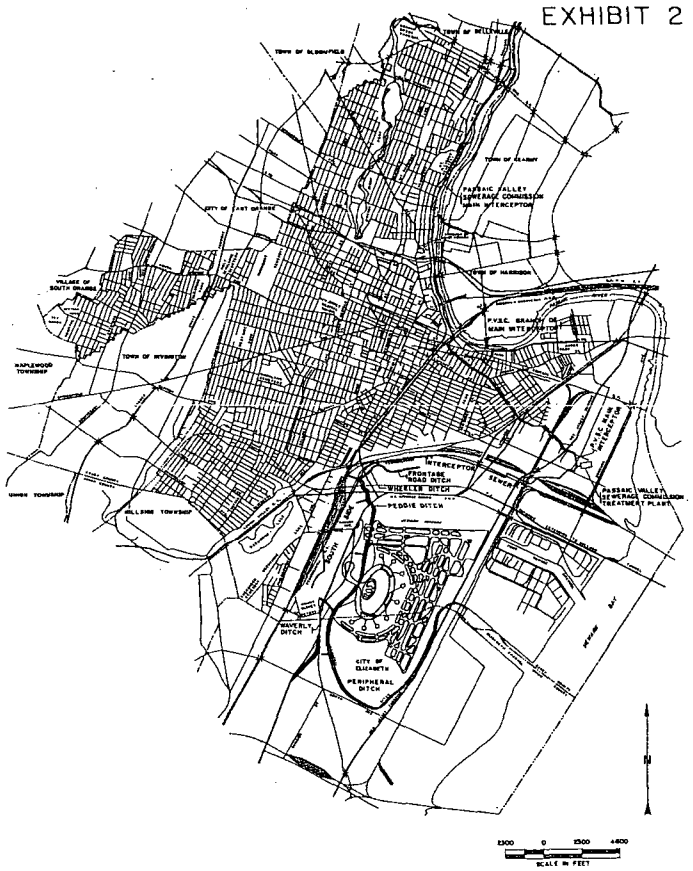
FMG000046

EXHIBIT 1



DRAINAGE LIMITS

EXHIBIT 2



MAJOR FACILITIES

946020054

FMG000047

INDUSTRIAL RIVER DISTRICT

Introduction

The Industrial River District is located in the eastern portion of the city. As shown on Exhibit 61, it is bounded on the north and east by the Passaic River, on the south by the City Channel at Port Newark, and on the west by Ferry Street and Pulaski Street.

The Industrial River Drainage Basin contains approximately 3650 acres, of which 94 per cent is industrial and commercial and the remaining 6 percent residential. A substantial portion of this Basin is covered by major transportation routes such as the New Jersey Turnpike, U.S. Routes 1-9, the Newark & New York Branch of the Central Railroad of New Jersey, and the Penn Central Railroad. The 1100 acres west of Route 1-9 is almost entirely developed, while the area east of Route 1-9 is about 60 per cent developed. The land is extremely flat, varying in elevation from only about 10 feet above mean sea level in the western portion of the Basin to sea level in the eastern portion of the basin at the Pasaaic River, to which it drains.

Many large industrial facilities are located within the Basin, and many more are proposed, mostly in the less densely developed section east of Route 1-9. Major industries such as Celanese Corporation of America, Federal Pacific Electric, Highlander Sportswear, Peoples Express, DeVoe Reynolds, and others own land in this section which they plan to develop in the future. Ideal Toy Company has just completed the construction of a major manufacturing facility along Wilson Avenue between Avenue "P" and Doremus Avenue. This industrial project alone covers about 76 acres.

Major oil companies such as Hess, Sunoco, Texaco, and others operate oil storage and handling facilities along the Passaic River in the eastern portion of the District. Until 1972, P. Ballantine & Sons, Inc. operated a major brewery on Ferry Street, west of Route 1-9.

A major automobile unloading and storage faiclity, covering about 50 acres, is located in the southern portion of the District, along the east side of Doremus Avenue between the New Jersey Turnpike and the Penn Central Railroad. To the west of this facility is a 100 acre tract of undeveloped land bounded by Doremus Avenue, the New Jersey Turnpike, the Newark & Elizabethport Railroad, and the Penn Central Railroad. This tract is presently owned by the Railroad, which has recently leased it to the Port of New York Authority.

The Passaic Valley Sewerage Commissioners sewage treatment plant is located in the east-central portion of the District, within the block formed by Delancy Street, Doremus Avenue, Wilson Avenue, and Avenue "P". Construction of additional primary treatment facilities is now underway.

Other notable features of this District are a drive-in movie theater on Routes 1-9 near Interchange 15 of the New Jersey Turnpike and two government housing projects on Chapel Street and Hawkins Street.

Exhibits 62 and 63 present the location of the major water, gas, electric and telephone utilities throughout this district.

Sewer Separation Plan

The Industrial River District is almost completely separated. One small area in the northeast section of the district is served by combined sewers and three other areas are served by undersized sanitary sewers. As shown on Exhibit 64, new sanitary sewers have been proposed for these four areas. The estimated construction cost of these new sanitary sewers is presented in Table VII-13.

TABLE VII-13

INDUSTRIAL RIVER DISTRICT
COST ESTIMATE - SEWER SEPARATION

Location	Pipe Size in Inches	Estimated Cost
Delancy St.	27	$ 196,000
Doremus Ave.	18,30	394,000
Avenue P	15,21	208,000
Wilson Ave.	15,24,36	588,000
Ball St.	12	79,000
Avenue K	21	127,000
Foundry St.	21	116,000
Newark Port (Doremus Ave. - Port St.-RR Easement-R.O.W.)	30,36,42	952,000
Subtotal		2,660,000
Lateral Sewer Cost 50 acres x $12,000		600,000
Total		$3,260,000

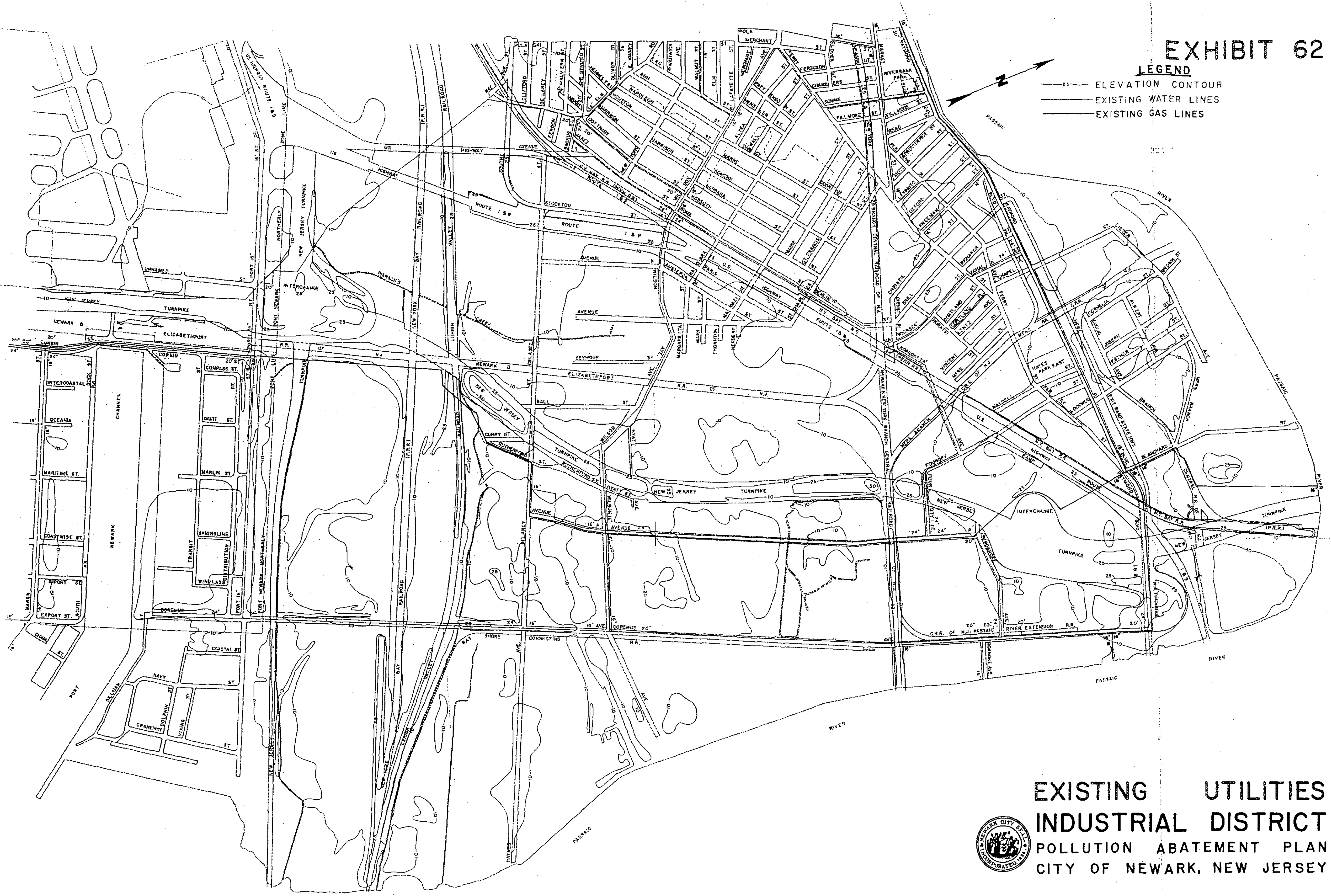
946020055

FMG000048

FMG000049

946020056

EXHIBIT 62



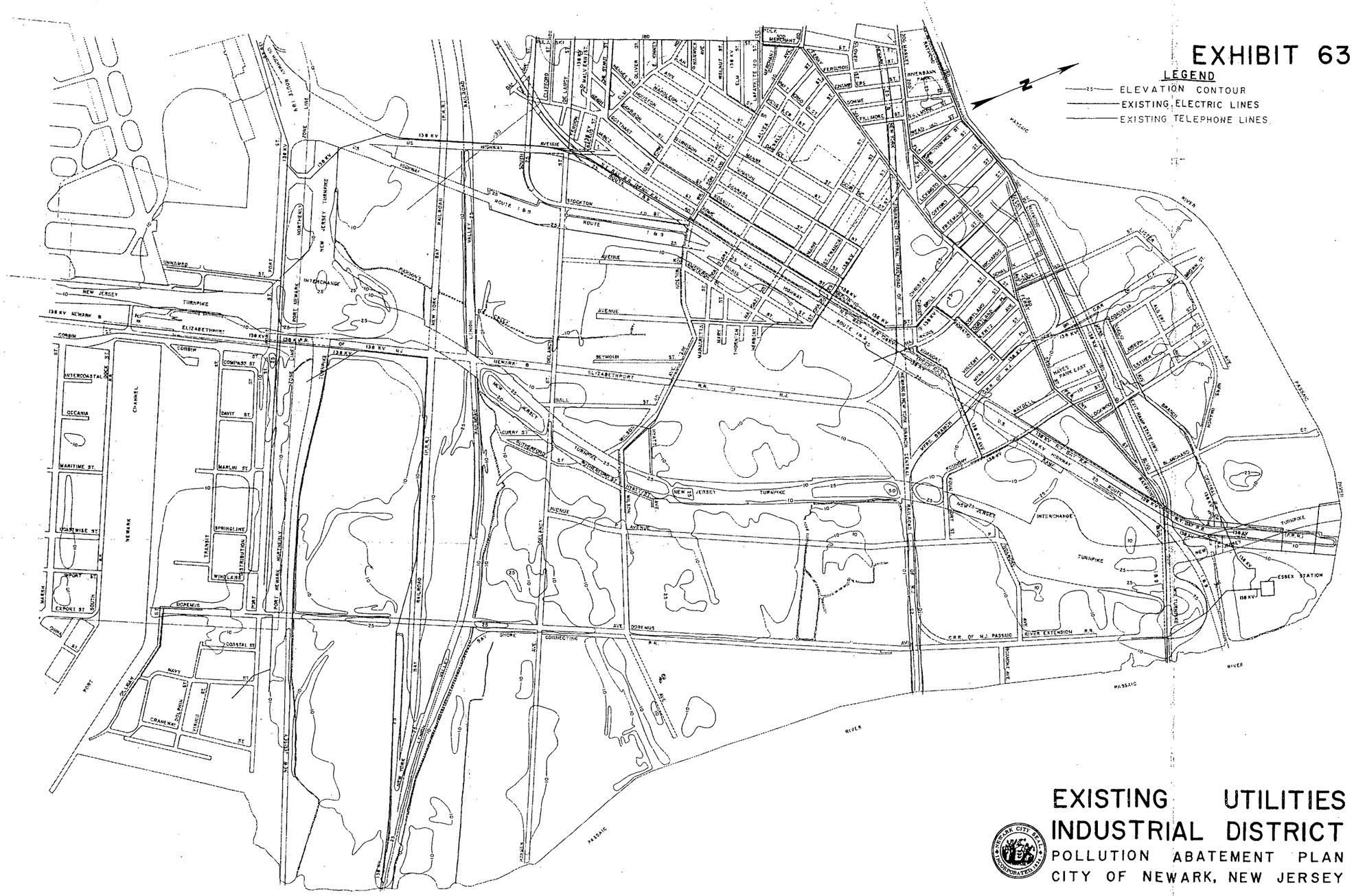
EXISTING UTILITIES
INDUSTRIAL DISTRICT

POLLUTION ABATEMENT PLAN
CITY OF NEWARK, NEW JERSEY

FMG000050

946020057

EXHIBIT 63



EXISTING UTILITIES
INDUSTRIAL DISTRICT
POLLUTION ABATEMENT PLAN
CITY OF NEWARK, NEW JERSEY

FMG000051

946020058

EXHIBIT 64

SEPARATION PLAN
INDUSTRIAL DISTRICT
POLLUTION ABATEMENT PLAN
CITY OF NEWARK, NEW JERSEY

FMG000052

946020059

STORM DRAINAGE

Southern Portion of Industrial River District

The Southern portion of the Industrial River District, bounded on the north by the Central Railroad of New Jersey, is presently drained by several drainage ditches including Pierson's Creek. As shown on Exhibit 61, the storm sewer system for the residential area to the northwest drains to a 3.5' x 9.0' box culvert on Avenue "L" which discharges into Pierson's Creek at Wilson Avenue. Chronic flooding conditions in the area have proven the existing drainage system to be inadequate, and relief sewers will be required to supplement the existing facilities. Cost estimate for these facilities, as shown on Exhibit 65, is presented in Table VII-14.

TABLE VII-14

SOUTHERN PORTION OF INDUSTRIAL RIVER DISTRICT STORM SEWER COST ESTIMATE*

Location	Pipe Sizes In Inches	Estimated Cost
Delancy Street	68 x 106, 58 x 91	$ 678,000
Avenue I	54	55,000
Backus Street	54	86,000
Gotthart Street	54	164,000
Wilson Avenue	54, 72	258,000
Avenue L	72	360,000
St. Charles Street	60	95,000
Margaretta Street	36	52,000
Niagara Street	36	140,000
Magazine Street	36, 48	94,000
TOTAL		$1,982,000

*Northwestern section only.

72" diameter sewers will be required along both Wilson Avenue and Avenue "L". An open channel is proposed downstream of the Avenue "L"-Wilson Avenue intersection since the area is largely open and undeveloped.

The total area tributary to this channel is 286 acres, and the computed design flow is 600 CFS.

Several alternative channel alignments were investigated. The first alignment was along existing Pierson's Creek, but this alternative was abandoned because it would involve many costly and difficult culvert crossings and does not drain the area east of the Central Railroad of New Jersey. It was then decided to align the channel in a southerly direction from Wilson Avenue to the intersection of the Lehigh Valley Railroad, the New Jersey Turnpike and the Central Railroad of New Jersey, and then easterly to Newark Bay. Pierson's Creek will remain to drain the area west of the Central Railroad not served by the proposed channel.

For design, the downstream controlling water level in Newark Bay was assumed to be 3.0' above mean sea level, which is approximately mean high water. In the Wilson Avenue area, existing elevations in developed areas are as low as 4.0' above mean sea level. Thus, the maximum allowable surface elevation at the upstream end of the channel was determined to be 3.0' above mean sea level. Since there is no hydraulic gradient available to drain the area by gravity flow, pumping is required.

It was decided to locate the pump station just west of the intersection of the Central Railroad and the N.J. Turnpike, approximately 400' south of Delancy Street. This location was selected for 2 reasons: (1) The required rail crossings can be made by force main, which can be jacked under the existing rails without interrupting service and at a substantially reduced cost; and (2) existing elevations in the developed areas east of the Central Railroad permit a design water elevation of 6.0' above mean sea level, which means this area can be drained by open channel gravity flow.

The peak flowrate tributary to the pump station was computed to be 1200 CFS, which would require a large and costly facility. Therefore, the area between Wilson Avenue and the pump station was investigated to determine the feasibility of constructing a detention basin to reduce the peak flow. A hydrograph analysis of the district revealed that the peak flow could be cut to approximately 600 CFS by constructing a 762,000 cubic foot detention basin upstream of the pump station. An open, undeveloped area sufficiently

946020060

FMG000053

large for this size basin exists between Pierson's Creek, Delancy Street, and the Central Railroad. Therefore, construction of the detention basin at this location is recommended, since the cost saving from the smaller pump station in half is far greater than the cost of the detention basin. In fact, in view of the relatively small cost of the detention basin relative to the cost of the other improvements, it is recommended that consideration be given to a more detailed study of the feasibility of constructing a larger detention basin to further reduce the required size of the pump station.

With the detention as part of the recommended plan, a flowrate of 600 CFS was used for design of the pump station. Based on a water level of +3 at the low point of Wilson Avenue, it was found that a trapezoidal channel section with 2:1 side slopes, 20 foot bottom width, and an invert slope of 0.10% would be sufficient to carry the design flow of 600 CFS. Assuming normal flow conditions, the depth in this channel at the design flow rate of 600 CFS would be 5.5'. The invert at the upstream end of the channel would be (-)2.5 and at the pump station would be (-)5.1. The water level at the pump station would be +0.40.

To conserve headroom and facilitate jacking for the rail crossings, it was decided to use twin pipes for the force main, rather than a single large one. This would also allow the use of only one of the pipes during conditions below peak flow. It was found that twin 72" sewers would be required. The velocity in these pipes will be approximately 11 FPS at a flowrate of 300 CFS each.

From the pump station to Newark Bay, two alternate channel alignments were investigated. The first, hereafter known as the Lehigh Valley Railroad Alignment, involves a main channel along the north side of the Lehigh Valley Railroad from the force main terminus to Newark Bay, with a secondary channel along the north side of the New Jersey Turnpike Extension to drain the areas south of the Lehigh Valley Railroad and east of the Central Railroad. The alternate route, hereafter known as the New Jersey Turnpike Extension Alignment, would have the main channel extend southerly from the force main terminus to the N.J. Turnpike Extension, then along the north side of the Turnpike Extension to Newark Bay. Under this alignment, a secondary channel would be required along the north side of the Lehigh Valley Railroad to drain the area north of the Lehigh Valley Railroad and east of the Central Railroad. The two alignments are shown on Exhibit 65 and are discussed in detail below.

Lehigh Valley Railroad Alignment

Under this alignment, the terminus of the force main would be approximately 500 feet east of the Central Railroad, and the main channel would extend along the north side of the Lehigh Valley Railroad to its discharge at Newark Bay.

The low lying areas along the Lehigh Valley Railroad are undeveloped, and it is assumed that they can be filled. However, existing elevations in some of the developed areas limit the design water level at the force main terminus to 6 feet above mean sea level. A design water level of +3 in Newark Bay and +6 at the force main terminus approximately 7300 feet upstream yields a design slope or 0.04% for the main channel. Based on this slope, a trapezoidal channel with 20 foot bottom width, 2:1 side slopes and depths of 9 feet at Newark Bay and 7 feet at the terminus of the force main proved to be the most satisfactory section. It was also found that the following culverts would be required:

1. A twin 6' x 16' reinforced concrete box culvert under the Lehigh Valley Railroad spur

2. An 8' x 20' reinforced concrete box culvert under Doremus Avenue.

The remaining area south of the Lehigh Valley Railroad and east of the Central Railroad will be drained by a secondary channel, which will run along the north side of the New Jersey Turnpike Extension to Newark Bay. Higher existing elevations in this section allow the use of a design water surface of 9 feet above mean sea level at the upstream end of this channel. Based on a water level in Newark Bay of +3 feet and a water level in the channel of +9 feet at the upstream end approximately 7900' away, the available design slope is 0.08%. This channel would have a Central Railroad and, based on the design slope of 0.08%, would be trapezoidal section with 2:1 side slopes and a bottom width of 6 feet at the upper end, widening to a bottom width of 12 feet approximately 700 feet west of Doremus Avenue. The bottom width for the remainder of the channel to Newark Bay is 12 feet. A 7' x 16' reinforced concrete box culvert will be required to cross Doremus Avenue.

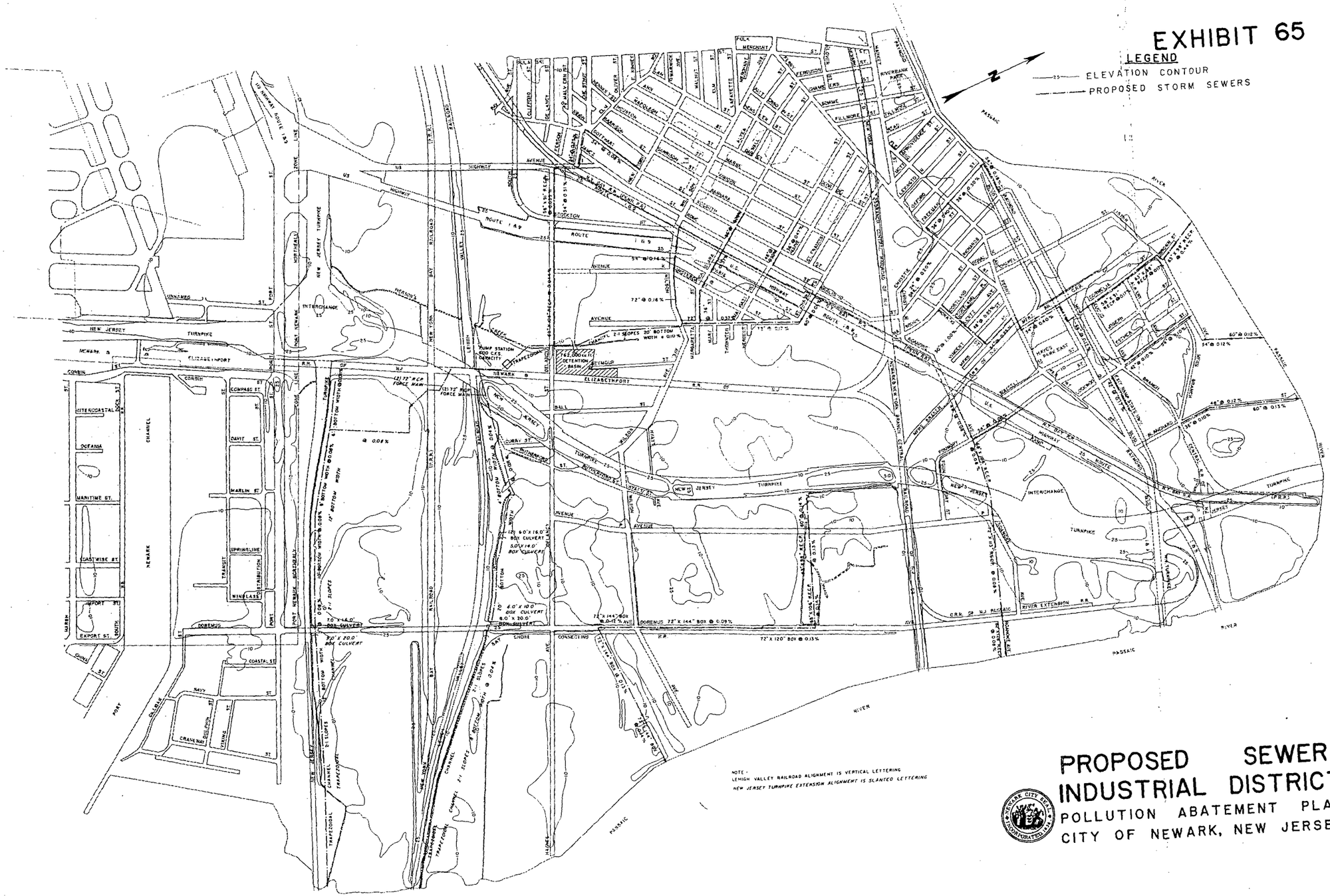
New Jersey Turnpike Extension Alignment

Under this alignment, the force main terminus would be approximately 600 feet east of the Central Railroad and 1000 feet south of the Lehigh Valley

946020061

FMG000054

EXHIBIT 65



PROPOSED SEWERS
INDUSTRIAL DISTRICT
POLLUTION ABATEMENT PLAN
CITY OF NEWARK, NEW JERSEY

FMG000055

946020062

Railroad. Thus, all the required rail crossings would be made by force main, which would be jacked under the rails without interrupting service. The main channel would then run south to the N.J. Turnpike Extension and along the north side of the Turnpike Extension to Newark Bay.

Since the main channel under this alignment follows the same alignment as the secondary channel under the Lehigh Valley Railroad alignment, the same design criteria were used except that the flow rate in the main channel is increased by the 600 c.f.s. from the pump station. The most satisfactory channel section was found to be a trapezoidal section with 2:1 side slopes, 12 foot bottom width, and depths of 6.7' at the terminus of the force main and 10.3' at Newark Bay. The culvert required at Doremus Avenue would be a 9' x 20' reinforced concrete box.

Under this alignment a secondary channel will be required along the north side of the Lehigh Valley Railroad to drain the areas between Wilson Avenue and the Lehigh Valley Railroad west of Doremus Avenue and between Delancy Street and the Lehigh Valley Railroad east of Doremus Avenue. (The remaining area in the southern portion of the Industrial River District will be drained by the system being designed in conjunction with the Ideal Toy Company project - See Table VII-15). This secondary channel will run from the Central Railroad to Newark Bay, and will also be a trapezoidal section with 2:1 side slopes. Since this channel follows the same alignment as the main channel under the Lehigh Valley Railroad alignment, the same design criteria were used except that the flowrates were decreased by the 600 CFS from the pump station.

TABLE VII-15

SOUTHERN PORTION OF INDUSTRIAL RIVER DISTRICT
STORM SEWERS DESIGNED IN CONJUNCTION WITH
THE IDEAL TOY COMPANY PROJECT
COST ESTIMATE

Location	Pipe Size in Inches	Estimated Cost
N.J. Turnpike-Avenue P	60	$ 95,000
Avenue P - Doremus Ave.	63 x 98	
	68 x 106	392,000
Doremus Ave.	72 x 120 Box	
	72 x 144 Box	2,167,000
Doremus Ave. - Passaic River	72 x 144 Box	1,557,000
Total		$4,211,000

The required bottom width is 4 feet from the Central Railroad to the extension of Avenue P, where two existing 60" storm sewers will discharge additional drainage from Wilson Avenue to the channel. From the extension of Avenue P to Newark Bay the required bottom width is 8 feet.

The following culverts are required for this channel.

1. A 5' x 14' reinforced concrete box culvert under the Lehigh Valley Railroad Spur

2. A 6' x 10' reinforced concrete box culvert under Doremus Avenue.

Cost estimates for the total recommended channel plan from the low point at Wilson Avenue to Newark Bay are presented on Table VII-16 for each of the alternate alignments.

TABLE VII-16

COST ESTIMATE
LEHIGH VALLEY RAILROAD ALIGNMENT

Item	Cost
1. Channel Excavation	$1,260,000
2. Detention Basin	113,000
3. 600 CFS Pump Station	1,523,000
4. Twin 72" R.C.P. Force Main	300,000
5. 5 R.C. Box Culverts; 1 at Delancy St., 2 at Doremus Ave. crossings, 2 at R.R. crossings	369,000
TOTAL	$3,565,000

NEW JERSEY TURNPIKE EXTENSION ALIGNMENT

Item	Cost
1. Channel Excavation	$1,160,000
2. Detention Basin	113,000
3. 600 CFS. Pump Station	1,523,000
4. Twin 72" R.C.P. Force Main	580,000
5. 5 R.C. Box Culverts; 1 at Delancy St., 2 at Doremus Ave. crossings, 2 at R.R. crossings	267,000
TOTAL	$3,643,000

946020063

FMG000056

Norther Portion of Industrial River District

The northern portion of the Industrial River District is bounded on the north and east by the Passaic River, on the south by the Central Railroad of New Jersey, and on the west by Fillmore Street. The area is presently served by several separate systems which outlet into the Passaic River.

Relief storm sewers will be required to supplement the existing facilities serving this portion of this District. The cost of these proposed storm sewers is summarized in Table VII-17.

TABLE VII-17

NORTHERN PORTION OF INDUSTRIAL RIVER DISTRICT
STORM SEWER COST ESTIMATE

Location	Pipe Size in Inches	Estimated Cost
Raymond Blvd.	54	$ 125,000
Freeman St.	36	135,000
Ferry St.	24	20,000
Christie St.	24	80,000
Brown St.	63 x 98	190,000
Lister Ave.	54 x 60	
	63 x 98	182,000
Cornelia St.	66,58 x 91	
	63 x 98	388,000
Ferry St.	54	141,000
Mfrs. Pl.	54	94,000
Horatio St.	30,48	103,000
Lockwood St.	42,54	172,000
Exit Ramp	42	70,000
Blanchard St.	36,48,60	273,000
Roanoke Ave.	48,68 x 106,	
	72 x 113	
	82 x 128	1,104,000
Foundry St.	54	133,000
Total		$3,210,000

946020064

FMG000057

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. 11 NJ003 INTERIM, SECTION 9(c)

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D. RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

FMG000058

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers

946020066

Elson T. Killam Associates, Inc.
27 Bleeker Street, Millburn, New Jersey 07041
• Telephone: (201) 379-3400 • Telex: 642-057 ETK ASSOC MIBN
Environmental and Hydraulic Engineers

May 16, 1980

Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Attention: Mr. Rocco Ricci
Chief Engineer

Re: Heavy Metals Source Determination Study Report Phase II

Gentlemen:

We are pleased to submit herewith our final Phase II Heavy Metals Source Determination Study report. Projections have been made with regards to expected heavy metal quantities to remain in the influent after the institution of pretreatment facilities to the metal contributing industries within the Passaic Valley Sewerage Commission service area. We have also taken into consideration the possible addition of wastewater from Kearny.

Should you have any comments or questions, please contact us.

Very truly yours,

ELSON T. KILLAM ASSOCIATES, INC.

Peter J. Krinsky

Peter J. Krinsky

Emil C. Herkert

PJK:kad

FMG000059

946020067

SUMMARY AND CONCLUSIONS

Two-hundred and sixty heavy metal contributing industries were sampled and analyzed during the course of the Phase II work. Eighty-nine or 34 percent of the industries are located in Newark, Sub-Area 0. Of the 260 metal contributing industries, 113 or 43 percent are of the metal finishing and electroplating category.

During the Phase II work the treatment plant influent was sampled on weekdays (Monday through Friday) over a total of 114 days. It was determined that the mean influent poundages remained the same (within one standard deviation) as the Phase I mean influent values.

As a result of the sampling of the 260 metal contributing industries in comparison to metals quantities documented to be industrial as a result of the Phase I system sampling and mass balance analysis, the study was highly successful in locating industrial cadmium (100%), industrial lead (100%), and industrial mercury (100%); moderately successful in locating industrial chromium (65%), industrial copper (73%), and industrial nickel (56%); and somewhat less successful in locating industrial zinc (37%).

When considering the high degreee of variability of the metals load in the influent, the cumulative Phase II industrial metals load located plus the Phase I baseline falls within a standard deviation of the Phase I treatment plant influent data. This holds true for all metals except nickel and zinc, which fall just outside the range. It may be assumed that all sources of cadmium, chromium, copper, lead, and mercury may have been located. It is possible as previously stated that all sources

FMG000060

946020068

of nickel and zinc may not have been located. However, these metals are still very close to the range, as they fall just outside one standard deviation.

It was documented that 30 industries within the Passaic Valley service area discharge greater than 1 percent of any particular total metal load. These industries are considered major metal contributors. Their discharges cumulatively comprise an average of 85 to 90 percent of the total located industrial metals load discharged to the Passaic Valley collection system.

Concentrations standards were applied to all the industries as well as the 30 major industries to determine metals remaining in the influent after pretreatment is employed. The concentration standards were evaluated as to their feasibility. It was determined that by utilizing best available technology and applying percent removals to contributing industrial metal loads, greater removals could be achieved than the removals achieved as a result of the categorical standards. It was, therefore, determined that the categorical standards developed by EPA are practical and achievable by existing technology.

When considering the Phase I influent metal poundages, as well as pretreatment to only the 30 major contributors within the Passaic Valley service area, the following metals quantities can be expected to remain in the influent after pretreatment:

FMG000061

946020069

METAL	PVSC INFLUENT METALS AFTER PRETREATMENT TO MAJOR CONTRIBUTING INDUS. (lbs/day)		PERCENT INFLUENT METALS REMOVED AS A RESULT OF PRETREAT. TO MAJOR CONTRIB.
	Mean	Range	Mean
Cadmium	23	3 - 43	62%
Chromium	740	297 - 1183	52%
Copper	617	263 - 970	39%
Lead	219	41 - 398	88%
Nickel	612	247 - 977	38%
Zinc	4255	1743 - 6767	26%
Mercury	4.3	0.90 - 7.78	96%

By enforcing pretreatment standards upon the major metal contributors within the Passaic Valley service area, the PVSC can reduce their total influent metals load by approximately 60 percent on an average basis. It should be noted that the additional metals removed by employing pretreatment standards on all industries versus major industries only is minimal. No more than 8.5 percent for any particular metal will be removed by enforcing pretreatment standards on the additional 230 industries.

It should also be noted that small quantities of lead remaining, as well as the large quantities of zinc remaining, indicate the variability of the industrial waste discharge on the two consecutive dates of industrial sampling versus the more characteristic 40 Phase I treatment plant influent sampling dates. Therefore, the lead value remaining may be interpreted to be uncharacteristically low, and the zinc value remaining may be interpreted to be uncharacteristically high.

By the addition of Kearny sewage, in the worst case there will be a 8.7 percent increase of nickel to the combined Passaic Valley/Kearny wastewater (after pretreatment).

FMG000062

946020070

Furthermore, it is finally recommended that PVSC examine over a longer period of time the 30 major metal contributing industries identified, as well as undertaking an evaluation of organics, generated within the PVSC service area.

FMG000063

946020071

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II

TABLE OF CONTENTS

DESCRIPTION	PAGE
I. INTRODUCTION	1
A. General	1
B. Metals Study Overview	2
1. Phase I	2
2. Phase II	7
3. Further Recommendations	8
C. Report Structure	10
II. INDUSTRIAL INVENTORY UPDATE	13
A. Master List Update	13
B. Base Map Update	23
C. Site Interviews (Additional)	23
D. Industrial Waste Survey Results of Sampling and Analysis Forms	24
III. TREATMENT PLANT INFLUENT (PHASE I AND II)	26
IV. INDIVIDUAL AND CUMULATIVE INDUSTRIAL CONTRIBUTIONS	47
A. Individual Industrial Contributions by Sub-Area	47
B. Cumulative Summary for the Entire PVSC Service Area	47
1. Comparison to Phase I Industrial Metals	47
2. Comparison to Phase I Total Metals	49
3. Comparison to Phase I Influent Standard Deviation	50
V. INDIVIDUAL AND CUMULATIVE INDUSTRIAL CONTRIBUTIONS AFTER PRETREATMENT	88
VI. FINAL SUMMARY OF INFLUENT METALS REMAINING AFTER PRETREATMENT TO ALL INDUSTRIES	122
VII. MAJOR INDUSTRIAL CONTRIBUTORS	126
A. Cumulative Service Area Summary	126

FMG000064

TABLE OF CONTENTS (cont.)

DESCRIPTION		PAGE
VIII.	CUMULATIVE MAJOR INDUSTRIAL CONTRIBUTIONS AFTER PRETREATMENT	134
IX.	FINAL SUMMARY TABLE INFLUENT METALS REMAINING AFTER PRETREATMENT TO MAJOR INDUSTRIES	138
X.	EVALUATION OF CATEGORICAL STANDARDS VS. PERCENT REMOVAL BY BEST AVAILABLE TECHNOLOGY	142
XI.	ADDITION OF KEARNY WASTEWATER	148
XII.	QUALITY CONTROL	151

FMG000065

PASSAIC VALLEY SEWERAGE AUTHORITY
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II

LIST OF COMPUTER OUTPUTS

NUMBER	DESCRIPTION	PAGE
I	Industrial Master List	16
II	Phase I Sampling and Analysis 1978 Treatment Plant Influent (lbs/day)	28
IIA	Phase I Sampling and Analysis 1978 Treatment Plant Influent (mg/l)	29
IIB	Phase I Sampling and Analysis 1978 Treatment Plant Influent (lbs/day) - Weekdays	30
IIC	Phase I Sampling and Analysis 1978 Treatment Plant Influent (mg/l) - Weekdays	31
III	Phase II Sampling and Analysis 1979-1980 Treatment Plant Influent (lbs/day)	32
IIIA	Phase II Sampling and Analysis 1979-1980 Treatment Plant Influent (mg/l)	35
IV	Comparison Phase I and Phase II Influents	38
V	Influent Metals - Probability Distribution - (lbs vs. frequency)	
	Cadmium	39
	Chromium	40
	Copper	41
	Lead	42
	Nickel	43
	Zinc	44
	Mercury	45
VI	Phase II Industrial Contributions (by Sub-Area)	51
VII	Phase II - Summary of Cumulative Industrial Metals Located Compared to Phase I Values for Industrial Metals	81
VIII	Phase II - Summary of Cumulative Industrial Metals Located Compared to Phase I Values for Total Metals	84
IX	Cumulative Industrial Metals Located Compared to Phase I Influent Standard Deviation	87

FMG000066

LIST OF COMPUTER OUTPUTS (cont.)

NUMBER	DESCRIPTION	PAGE
X	Phase II Industrial Contributions After Pretreatment (by Sub-Area)	90
XI	Phase II - Summary of Industrial Contributions After Pretreatment (by Sub-Area)	120
XII	Final Summary - Influent Metals Remaining After Pretreatment by All Industries (Phase I Influent Values)	125
XIII	Phase II - Industrial Contributions - Major Contributors (Greater than 1% of Total Metals)	128
XIV	Phase II - Summary of Cumulative Industrial Metals Contributed by Major Contributors Compared to Phase I Values for Industrial and Total Metals	131
XV	Phase II Industrial Contributions by Major Contributors After Pretreatment	135
XVI	Final Summary - Influent Metals Remaining After Pretreatment by Major Contributors (Phase I Influent Values)	140
XVII	Metals Contributions after Pretreatment to Major Industries by Best Available Technology (% Removals)	144
XVIII	Comparison of Pretreatment Categorical Standards to Percent Removals by Best Available Technology	147

FMG000067

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II

LIST OF TABLES

NUMBER	DESCRIPTION	PAGE
1	Mass Balance Analysis - Industrial Metals - Entire Service Area	5
2	Mass Balance Analysis - Industrial Metals Contribution to PVSC Treatment Facility	6
3	Number of Heavy Metals Industries per Sub-Area	21
4	Number of Industries per Industrial Classification.	22
5	Special Influent and Sludge Samples Requested by EPA	46
6	Pretreatment Concentration Standards (mg/l)*	89
7	Comparative Assessment of Metals Located* - Major Industries vs. All Industries	132
7A	Comparative Assessment of Metals Located* - Major Industries vs. All Industries	133
8	Industrial Removals After Pretreatment - All Contributors vs. Major Contributors	141
9	Percent Metals Removals by Best Available Technology	143
10	Expected Increase in Heavy Metals by the Addition of Kearny Wastewater	150

FMG000068

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II

LIST OF PLATES

NUMBER	DESCRIPTION	PAGE
1	Service Area and Sub-Area Designations	3
2	Key Manhole Schematic	4
3	Overview Report Structure	12
4	Key to Industrial Listing	15

FMG000069

I. INTRODUCTION

A. General

Pursuant to the Marine Protection Research and Sanctuaries Act of 1972, 33/USC/1401-1444, the Passaic Valley Sewerage Commission was issued an ocean dumping permit, No. II NJ003 effective August 1, 1976, requiring that the following special condition (9c.) be adhered to:

> "The waste generator shall file a detailed heavy metals source determination study report detailing the origins of heavy metals found in its ocean dumped sludge."

It is the intention of this Act that the results of this metals study be interfaced with another condition of the same act (7a.b.), requiring that the Passaic Valley Sewerage Commission compile a facility management plan for the land based disposal of sludge. In essence, the results of the metals study and the metals remaining in the Passaic Valley raw sewage after pretreatment standards are employed, will serve as a limiting factor as to which land-based sludge disposal options are viable.

In the interim, the Federal government has also issued a mandate (40 CFR, Part 403, published 6/26/78) requiring treatment plants greater than 5 MGD to develop and implement a pretreatment program requiring that industrial discharges within the service area be controlled so that metals and organic compounds do not interfere with: 1) the biological treatment process of the wastewater treatment facility; 2) the sludge disposal scheme for the sewage treatment plant; and 3) the NPDES permit requirements issued to the wastewater treatment facility.

The results of this heavy metals study therefore is in direct response to the program for the abatement of ocean dumping with specific

FMG000070

946020078

regards to the development of the sludge management plan, but is also providing an initial basis for development of a pretreatment program and associated industrial inventory for the Passaic Valley Sewerage Commission (PVSC).

B. Metals Study Overview

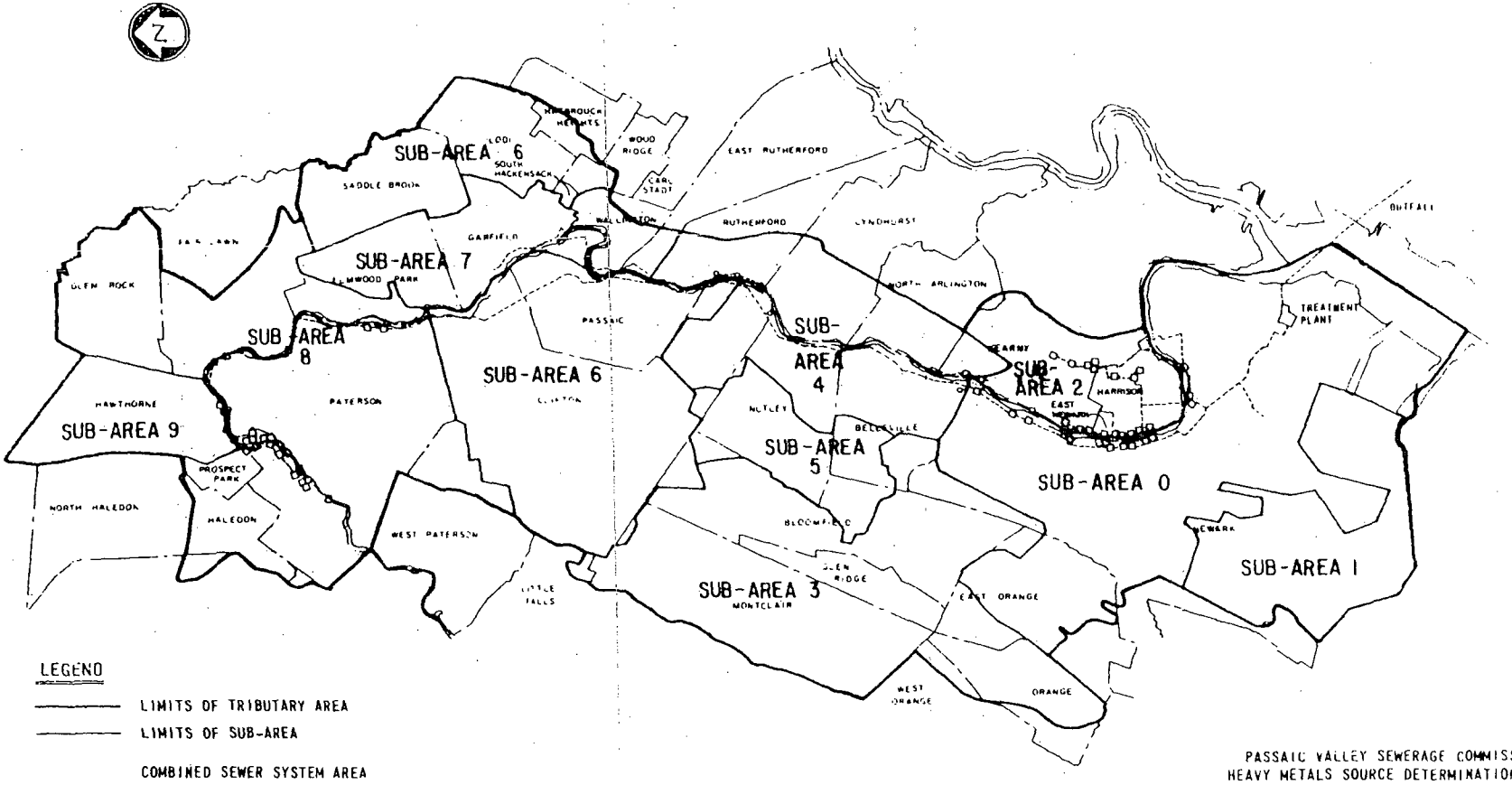
The Heavy Metals Study for the Passaic Valley Sewerage Commission was accomplished in two phases. Phase I is comprised of an industrial inventory, treatment plant sampling and system sampling, completed and contained within the Phase I document dated August 15, 1978. Phase II is the results of the actual industrial sampling and associated conclusions contained within this document dated May, 1980.

1. Phase I

It was the purpose of the Phase I Metals Study to inventory and identify major industrial metals contributors within the Passaic Valley Sewerage Commission service area, as well as identify major metal contributing areas within the PVSC collection system. Phase I also documents baseline contributions of metals, including domestic metals and metals from storm water. During the development of Phase I the entire PVSC service area was divided into nine sub-areas and respective key manholes, as indicated on Plates 1 and 2. The most pertinent results of this phase are contained within Tables 1 and 2, which indicate the areas of greatest industrial metals contribution (Table 1) and pounds of metals contained in the influent to the Passaic Valley wastewater treatment facility and their composition in terms of baseline and industrial metals (Table 2).

FMG000071

946020079



LEGEND

LIMITS OF TRIBUTARY AREA

LIMITS OF SUB-AREA

COMBINED SEWER SYSTEM AREA

PVSC MAIN INTERCEPTOR SEWER WITH COMBINED SEWER OVERFLOW

PVSC MAIN INTERCEPTOR SEWER WITH SANITARY SEWER SYSTEM OVERFLOW

SCALE: 1" = 9000' APPROX.

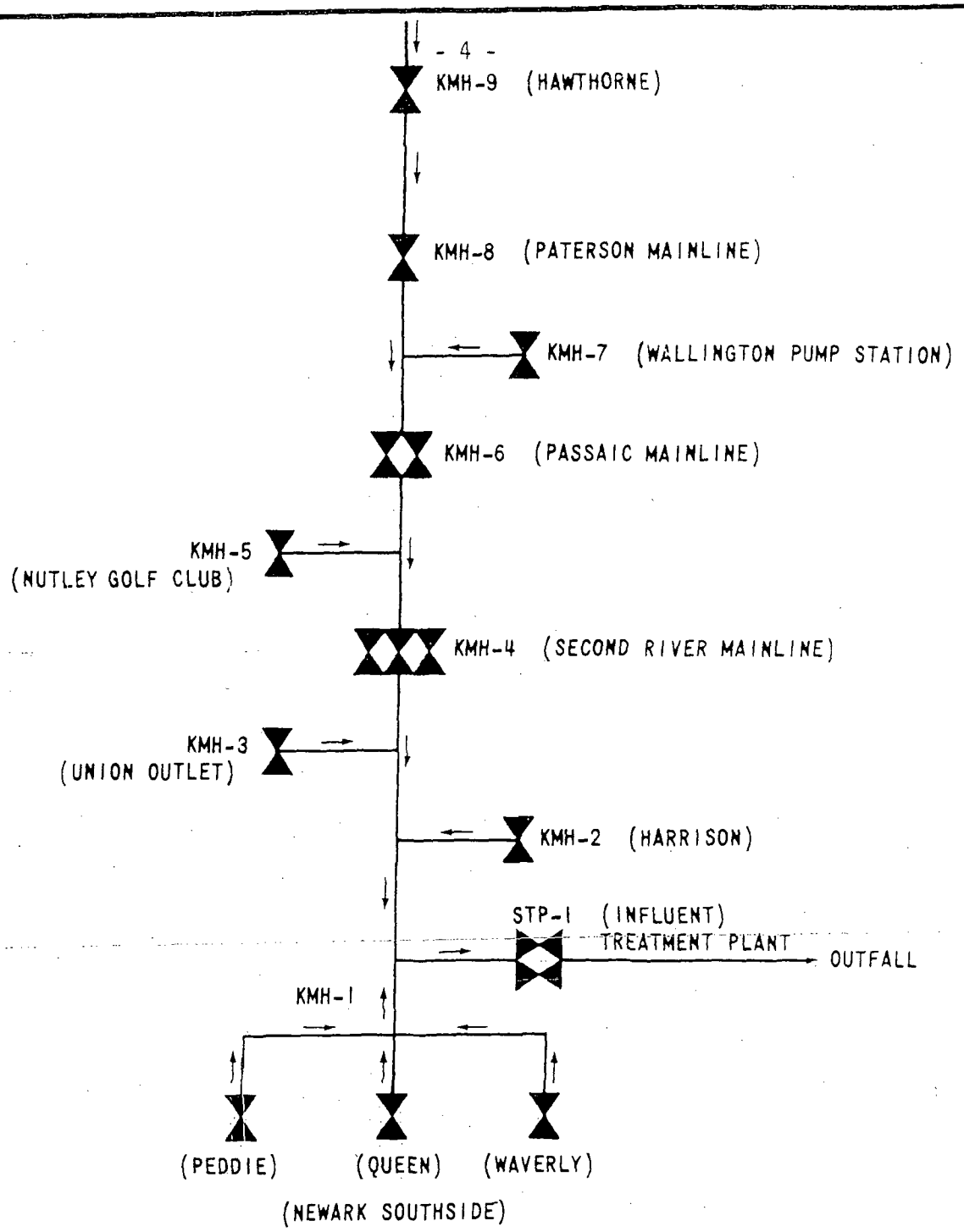
PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II
SERVICE AREA
AND
SUB-AREA DESIGNATIONS

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers

PLATE 1

946020080

FMG000072



FMG000073

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION

PHASE II

KEY MANHOLE SCHEMATIC

METER

FLOW DIRECTION

DATE 7-20-78

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers
27 Beehler Street Millburn, New Jersey 07041

BRUNING 44-142 32466

946020081

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE I
SUMMARY TABLE
MASS BALANCE ANALYSIS
INDUSTRIAL METALS
ENTIRE SERVICE AREA

Sub-Area	Total Cd	Total Cr	Total Cu	Total Pb	Total Ni	Total Zn	Total Sn	Total V	Total As	Total Se	Total Hg
0	37.2(61.5)	1092(73.3)	475(56.0)	1430(82.4)	539(57.1)	2317(43.4)	1.836(96.6)	0.0(0)	13.96(56)	0.0(0)	109.86(93.6)
1	5.4 (8.9)	152(10.2)	40 (4.7)	141 (8.1)	69 (7.3)	533(10.0)	0.0 (0)	0.0(0)	0.53(2.1)	0.0(0)	1.69(1.4)
2	0.7 (1.2)	23 (1.5)	22 (2.6)	18 (1.0)	96(10.2)	111 (2.1)	0.0 (0)	0.0(0)	0.18 (.7)	0.0(0)	0.13 (.1)
3	3.7 (6.1)	9 (.6)	12 (1.4)	0 (0)	15 (1.6)	79 (1.5)	0.073 (3.8)	0.0(0)	0.28(1.1)	0.0(0)	0.23 (.2)
4	0.0 (0)	8.3 (.6)	0.0(0)	12 (.7)	0.0(0)	127 (2.4)	0.0 (0)	0.0(0)	8.9(35.7)	0.0(0)	0.0 (0)
5	0.9 (1.5)	4.2 (.3)	54 (6.4)	13 (.7)	14 (1.5)	55 (1.0)	0.0 (0)	0.0(0)	0.13 (.5)	0.0(0)	0.15 (.1)
6	2.9 (4.8)	45 (3)	0.0(0)	0 (0)	71 (7.5)	0.0(0)	0.0 (0)	0.0(0)	0.16(.64)	0.0(0)	2.44 (2.1)
7	2.6 (4.3)	65 (4.4)	41 (4.8)	10 (.6)	94 (10)	417 (7.8)	0.027(1.4)	0.0(0)	0.13(.5)	0.0(0)	0.02(0)
8	7.5(12.4)	91 (6.1)	191(22.5)	153 (8.8)	48 (5.1)	1782(33.4)	0.0 (0)	0.0(0)	.54(2.2)	0.0(0)	2.43 (2.1)
9	0.0 (0)	0.5 (0)	27 (3.2)	0 (0)	0.0(0)	10 (.2)	0.0 (0)	0.0(0)	0.01 (0)	0.0(0)	0.7 (.6)
TOTAL Industrial pounds/day	60.52(100)	1490(100)	848 (100)	1736 (100)	944 (100)	5335 (100)	1.9 (100)	0.0(-)	24.94 (100)	0.0(-)	117.4(100)

Total Industrial poundage/day (% of Total Industrial metal poundage).

TABLE I

946020082

FMG000074

PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE I
MASS BALANCE ANALYSIS
INDUSTRIAL METALS CONTRIBUTION TO PVSC TREATMENT FACILITY

	Total Cd	Total Cr	Total Cu	Total Pb	Total Ni	Total Zn	Total Be	Total V	Total As	Total Se	Total Hg
Total metals/ Influent	68	1523	999	1869	991	5694	1.9	0.0	25	0.0	119
Total metals/ Domestic	5.65	25.8	120.2	69.9	21.3	277.4	0.0	0.0	0.0	0.0	1.12
Total metals/ I/I	1.83	7.48	30.60	63.50	26.00	81.69	0.0	0.0	0.056	0.0	0.485
Total metals/ BaselineΔ(Domestic + I/I)	7.48	33.28	150.8	133.4	47.3	359.09	0.0	0.0	0.056	0.0	1.605
Total metals/ Influent	68	1523	999	1869	991	5694	1.9	0.0	25	0.0	119
Total metals/ Baseline	7.48	33.28	150.8	133.4	47.3	359.09	0.0	0.0	0.056	0.0	1.605
Total metals/ IndustrialΔ(Influent-Baseline)	60.52	1489.72	848.2	1735.6	943.7	5334.91	1.9	0.0	24.944	0.0	117.395
% of Total metals Industrial	89.0%	97.8%	84.9%	92.9%	95.2%	93.7%	100.0%	-	99.8%	-	98.7%

All results expressed as lbs/day

TABLE 2

946020083

FMG000075

2. Phase II (Scope of Work)

Industrial sampling was undertaken utilizing the list of significant metal contributing industries in conjunction with the identification of the sub-areas with heavy contributions of industrial metals compiled during Phase I. Data as a result of the Phase I inspections of and meetings with these significant industries was utilized for sampling and flow measurement purposes during Phase II. Field personnel utilized the defined sampling and flow measuring points as indicated as a result of the Phase I site interviews to conduct the actual sampling and analyses of the industries to determine the contribution of heavy metals to the PVSC system. Sampling was initiated in the most heavily industrialized sub-areas first (Sub-Area 0-Newark, Sub-Area 8- Paterson).

Automatic sampling by the utilization of 48-hour discrete samples was employed wherever possible. Samples were taken during the production period (batch or continuous) of each industry so as to obtain representative flow proportioned (wherever possible) composite samples from the industry on two consecutive days.

Manual sampling of industry by the utilization of field personnel to manually collect samples during the period of production was undertaken only as necessary. Samples were collected and composited in accordance with the production cycles of the industry which might comprise batch or continuous operation. Representative samples were obtained during the production period of two consecutive working days.

The data collected in the Phase II surveys has been summarized and a determination has been made of the documented quantity of located

FMG000076

946020084

heavy metals contributed by industry from each individual industry, sub-area, and the entire PVSC service area.

The Federal pretreatment standards have been evaluated for heavy metals considering the PVSC industrial metals on a mass (lbs/day) basis. A projection has been made of the probable resultant heavy metals in the influent following implementation of the applicable Federal pretreatment standards for heavy metals removal.

Concentration standards for electroplating industries (Federal Register Vol. 44, No. 175, 9/7/79) have been applied to the industrial waste sampled, tested, and documented under Phase II, and projections have been made of the probable reduction of the industrial heavy metals considering pretreatment. It is not the intention of this report to be site specific as to the design of a pretreatment system for each industry but rather to make a judgment as to metals removability, and the general approach to pretreatment as it pertains to the most up-to-date regulations.

An estimate of metals which cannot be removed from the raw PVSC wastewater consisting of domestic metals, stormwater metals, industrial metals which could not be located, and industrial metals which could be located but not removed via pretreatment has been made and the resultant metals will serve as the limiting factor to the sludge plan consultant as to which sludge disposal technique(s) may be viable for Passaic Valley.

3. Further Recommendations (Phase III)

It is recommended that in addition to the existing heavy metals study, PVSC should evaluate the possibility of undertaking a more detailed evaluation of organics within the PVSC service area by performing

FMG000077

scans on 24-hour, flow proportioned raw sewage samples on a daily basis over a specified period of time. This could also be undertaken simultaneously at the key manholes in the system utilized during the Phase I metals study for identifying any problem areas. Consideration should be given to scans being performed on likely industries contributing organics.

It is also recommended that on a preliminary basis PVSC consider their pretreatment program and the possibility of evaluating more stringent requirements or pretreatment credit under the new regulations to industries within the service area considering the sludge disposal scheme to be selected in conjunction with the projected maximum acceptable metal loadings to be in the sludge. This will only be a preliminary evaluation, however, as actual percent removals, pass through and interference must be evaluated, and this may only be accomplished after the secondary facilities become operational.

It is recommended that PVSC incorporate the results of this Phase II metals study into the actual pretreatment program to be developed by PVSC in accordance with the new Federal regulations.

It is finally recommended that PVSC examine over a longer period of time the thirty (30) major metal contributing industries as identified within Section VII of this report. This will give PVSC greater insight

in of metals to remain in the influent after pre-

tr wo-day evaluations are not adequate when assess-

ir 40 Phase I influent sampling days or 114 Phase II

ir ome of the major industries yielded questionably

FMG000078

946020086

high discharges as the two days of sampling may have been uncharacteristically high. Certain major industries on the other hand are probably uncharacteristically low. At least a specified period of representative sampling at each major industry seems in order. The plant should also be sampled after it goes into operation to determine actual capture in the sludge, interference, or pass through, rather than predicted capture.

C. Report Structure

The Phase I report consists of a main body or text supported by Appendix A (which is Part A of the industrial waste surveys) containing industrial site interview questionnaires Volumes 1 through 4. Phase I also consists of a single Appendix B (or Part 2 of the industrial waste surveys), containing the actual industrial waste survey results of sampling and analysis of 30 industries. Phase I also contains a master base map indicating the locations of all industries examined within the PVSC service area.

Phase II consists of a main body or text report supported by an additional Appendix A., which is one volume of additional industrial site interview questionnaires, and two volumes (1-2) of Appendix B, industrial waste survey results of sampling and analysis of 230 industries. Phase II also contains an updated master base map, as industries have been added or deleted to the originally defined list.

All Appendix A., industrial site interview questionnaires, and Appendix B, the results of industrial waste surveys, are in chronological order by control number for each of the phases. Therefore, a site interview contained within Appendix A may be cross-referenced to industrial waste survey results contained within Appendix B.

FMG000079

946020087

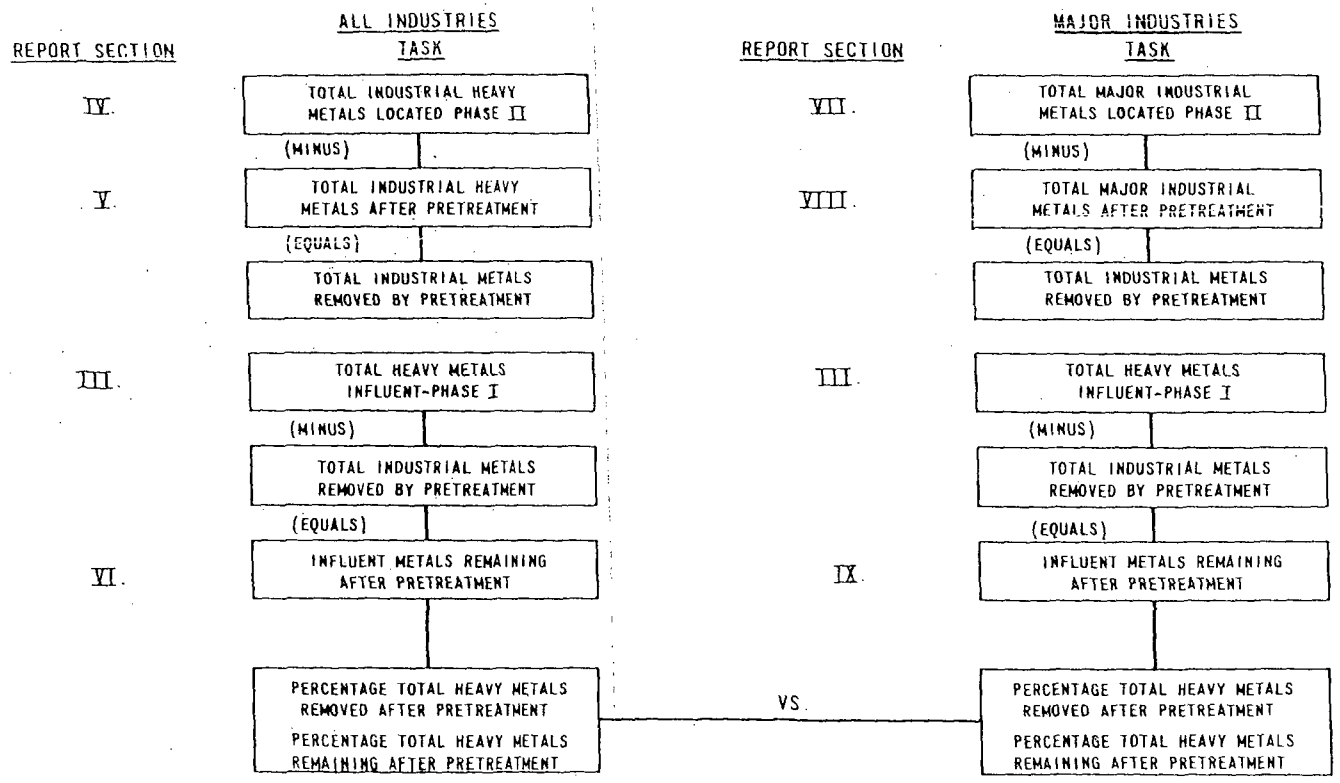
By referring to the master list of industries contained within this text, each industry has been coded accordingly so that the phase, appendix, and volume to locate a particular industrial site interview questionnaire (Appendix A) as well as results of analyses (Appendix B) can be accomplished with relative ease.

The Phase II main body report consists of twelve sections. Each of these sections is closely interrelated and have been structured in chronological order to ultimately yield the final summary tables indicating the quantity of metals remaining in the Passaic Valley influent after pretreatment. In each instance where an industry is identified by name, it is accompanied by a control number so that this industry may be cross-referenced to the Appendices containing the industrial site interview questionnaires and results from industrial waste surveys.

Plate 3 is an overview of the Phase II report structure to give the reader further insite into the interrelationships between the most pertinent sections contained within this document, as well as the final goals of the study.

FMG000080

946020088



PASSAIC VALLEY SEWERAGE COMMISSION
HEAVY METALS SOURCE DETERMINATION STUDY
PHASE II
OVERVIEW REPORT STRUCTURE
Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers

PLATE 3

946020089

FMG000081

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
390	CHARLES BESSELER CO. 217 SOUTH 18TH ST. EAST ORANGE	0.0040	0.000 (0.012)	0.281 (8.420)	0.012 (0.359)	0.001 (0.022)	0.001 (0.038)	0.006 (0.166)	< 0.000 (0.001)	0.0000 (0.001)
920	A & L DYERS INC. 36 SEABURY ST. NEWARK	0.0150	< 0.001 (0.005)	0.005 (0.038)	0.014 (0.108)	0.003 (0.020)	0.[illegible]3 (0.[illegible]00)	0.011 (0.087)	< 0.000 (0.001)	0.0000 (0.000)
925	ADCO CHEMICAL RUTHERFORD ST. NEWARK	0.0020	0.000 (0.008)	0.002 (0.090)	0.004 (0.220)	0.001 (0.030)	0.000 (0.010)	0.007 (0.410)	< 0.000 (0.001)	0.0001 (0.005)
930	ALLIANCE CHEMICAL INC. 33 AVE. P NEWARK	0.1170	0.027 (0.028)	0.309 (0.317)	0.418 (0.428)	0.701 (0.718)	0.248 (0.254)	653.772 (670.000)	0.001 (0.001)	0.0024 (0.002)
940	ALL PLATING & CASTING INC. 589 FERRY ST. NEWARK	0.0190	0.015 (0.093)	0.014 (0.091)	1.348 (8.510)	0.003 (0.022)	0.472 (2.980)	0.056 (0.351)	0.039 (0.245)	0.0001 (0.001)
950	ANODIZING CORP. 39 AVE. L NEWARK	0.0090	< 0.000 (0.005)	0.124 (1.650)	0.010 (0.135)	0.021 (0.282)	0.001 (0.011)	0.005 (0.066)	< 0.000 (0.001)	0.0003 (0.003)
952	ARKANSAS CO. INC. 185 FOUNDRY ST. NEWARK	0.0280	0.002 (0.007)	0.008 (0.033)	0.008 (0.036)	0.021 (0.089)	0.007 (0.032)	0.074 (0.315)	< 0.000 (0.001)	0.0029 (0.012)
955	AKOL CHEMICAL PRODUCTS CO. 649 FERRY ST. NEWARK	0.0001	0.000 (0.005)	0.000 (0.005)	0.000 (0.008)	< 0.000 (0.005)	< 0.000 (0.005)	0.000 (0.014)	< 0.000 (0.001)	< 0.0000 (0.000)
960	ART METAL U. S. A. INC. 300 PASSAIC ST. NEWARK	0.1480	0.010 (0.008)	6.480 (5.250)	0.128 (0.104)	0.415 (0.336)	0.032 (0.026)	2.382 (1.930)	< 0.001 (0.001)	0.0006 (0.000)
970	ASHLAND OIL INC. 400 DUKEMUS AVE. NEWARK	0.3140	0.047 (0.018)	0.202 (0.077)	0.141 (0.054)	0.278 (0.106)	< 0.013 (0.005)	0.526 (0.201)	< 0.003 (0.001)	0.0029 (0.001)

COMPUTER OUTPUT XI
946020089 A
FMG000082

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
980	ATLAS REFINERY INC. 142 LOCKWOOD ST. NEWARK	0.0220	0.014 (0.077)	0.338 (1.840)	0.066 (0.358)	0.782 (4.260)	0.136 (0.742)	0.027 (0.149)	0.001 (0.007)	0.0003 (0.001)
995	AUTOMATIC PLATING INC. 185 FOUNDRY ST. NEWARK	0.0420	0.022 (0.064)	6.690 (19.100)	0.184 (0.525)	0.033 (0.095)	0.178 (0.508)	12.190 < (34.800)	0.000 (0.001)	0.0009 (0.002)
1000	AUTOMATIC PLATING METHODS INC. 347 FERRY ST. NEWARK	0.0820	3.529 (5.160)	4.384 (6.410)	3.358 (4.910)	0.193 (0.282)	1.306 (1.910)	29.680 (43.400)	0.002 (0.003)	0.0003 (0.000)
1010	BARBER PHOTOGRAPHIC CO. 378 SIXTH AVE. NEWARK	0.0040 <	0.000 (0.005)	0.001 (0.020)	0.022 (0.649)	0.005 (0.150)	0.003 (0.094)	0.024 (0.720)	0.000 (0.003)	0.0316 (0.948)
1020	BAYONNE BARREL & DRUM CO. 154 RAYMOND BLVD. NEWARK	0.0440	0.448 (1.220)	1.167 (3.180)	0.650 (1.770)	6.715 (18.300)	0.067 (0.183)	3.281 (8.940)	0.021 (0.056)	0.1101 (0.300)
1030	BENJAMIN MOORE & CO. 134 LISTER AVE. NEWARK	0.0320	0.016 (0.060)	0.755 (2.830)	1.022 (3.830)	0.899 (3.370)	0.270 (1.010)	2.989 (11.200)	0.009 (0.033)	0.0000 (0.000)
1032	BENNET HEAT TREATING CO. INC. 690 FERRY ST. NEWARK	0.0160 <	0.001 < (0.005)	0.001 (0.005)	0.013 < (0.098)	0.001 < (0.005)	0.001 (0.005)	0.002 < (0.013)	0.000 (0.001)	< 0.0000 (0.000)
1035	BESSEMER PROCESSING CO. INC. 135 HAYNES AVE. NEWARK	0.0450	0.021 (0.057)	0.123 (0.327)	0.087 (0.232)	0.310 (0.826)	0.030 (0.080)	0.150 (0.401)	0.016 (0.042)	0.0020 (0.005)
1045	BLACK OXIDE PROCESSING CORP. 85 GOTHARD ST. NEWARK	0.0110 <	0.000 (0.005)	1.477 (16.105)	0.015 < (0.168)	0.000 < (0.005)	0.000 (0.005)	0.174 < (1.895)	0.000 (0.001)	< 0.0000 (0.000)
1050	BLUE LINE INC. 209 PARKHURST ST. NEWARK	0.0160	0.001 (0.008)	1.575 (11.800)	4.777 (35.800)	0.031 (0.233)	3.496 (26.200)	0.063 (0.470)	0.001 (0.011)	0.0004 (0.003)

946020090

FMG000083

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1220	ENDLEHARD INDUSTRIES INC. 429 DELANCEY ST. NEWARK	0.4710	1.787 (0.455)	2.632 (0.670)	169.303 (43.100)	12.020 (3.060)	62.850 (16.000)	43.995 (11.200)	0.090 (0.023)	0.0196 (0.005)
1230	EXPRESS CONTAINER CORP. 105 AVE. L NEWARK	0.0120	< 0.001 (0.005)	0.009 (0.091)	0.007 (0.070)	0.002 (0.022)	0.003 (0.025)	0.008 (0.082)	0.000 (0.001)	0.0001 (0.001)
1240	FAIRMOUNT CHEMICAL CO. 117 BLANCHARD ST. NEWARK	0.7390	0.055 (0.009)	3.285 (0.533)	2.533 (0.411)	5.491 (0.891)	0.290 (0.047)	265.020 (43.000)	0.009 (0.001)	0.0068 (0.001)
1250	FEDERATED METALS CORP. 150 ST. CHARLES ST. NEWARK	0.0100	0.006 (0.074)	0.009 (0.109)	0.098 (1.170)	0.015 (0.178)	0.007 (0.078)	0.014 (0.167)	< 0.000 (0.001)	0.0001 (0.002)
1260	FEDERATED PACIFIC ELECTRIC CO. 150 AVE. L & HERBERT NEWARK	0.1510	0.013 (0.010)	0.481 (0.382)	0.879 (0.698)	0.084 (0.067)	0.042 (0.033)	1.952 (1.550)	0.003 (0.002)	0.0009 (0.001)
1270	GENERAL COLOR CO. 24 AVE B NEWARK	0.0160	40.165 (301.000)	0.005 (0.036)	0.025 (0.185)	< 0.001 (0.005)	< 0.001 (0.005)	3.910 (29.300)	0.001 (0.005)	0.0010 (0.007)
1285	HUMMEL LANOLIN CORP. 185 FOUNDRY ST. NEWARK	0.0280	< 0.001 (0.005)	0.014 (0.059)	0.010 (0.043)	0.163 (0.698)	< 0.001 (0.005)	0.021 (0.092)	0.064 (0.275)	0.0003 (0.001)
1290	HY-GRADE ELECTROPLATING CO. 35 FOURTH ST. NEWARK	0.0090	0.040 (0.536)	0.494 (6.580)	9.007 (120.000)	0.072 (0.958)	0.212 (2.830)	0.469 (6.250)	0.000 (0.004)	0.0000 (0.000)
1300	INDUSTRIAL HARD CHROMIUM CO. / ROME ST. NEWARK	0.0100	0.010 (0.116)	57.046 (684.000)	0.799 (9.580)	1.985 (23.800)	0.056 (0.667)	0.188 (2.250)	0.001 (0.014)	0.0000 (0.000)
1310	THE KENNY PRESS INC. 110 EDISON PLACE NEWARK	0.0010	< 0.000 (0.005)	0.000 (0.050)	0.001 (0.142)	0.006 (0.696)	0.000 (0.075)	0.001 (0.083)	< 0.000 (0.001)	0.0000 (0.001)

946020091

FMG000084

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA O

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1570	SHIMAN INDUSTRIES INC. 109 MONROE ST. NEWARK	0.0090	0.001	0.004	0.122	0.009	0.011	0.084	0.001	0.0002
			(0.013)	(0.057)	(1.620)	(0.125)	(0.142)	(1.120)	(0.007)	(0.003)
1580	THE STANDARD TALLOW CORP. 61 BLANCHARD ST. NEWARK	0.0360	0.002	0.018	0.058	0.054	0.004	0.087	0.001	< 0.0000
			(0.008)	(0.059)	(0.192)	(0.179)	(0.012)	(0.290)	(0.002)	(0.000)
1590	STIRRUP METAL PRODUCTS CORP. 215 EMMET ST. NEWARK	0.0040	0.000	0.033	0.036	0.003	0.008	0.017	0.000	0.0000
			(0.008)	(1.000)	(1.080)	(0.100)	(0.237)	(0.510)	(0.003)	(0.001)
1600	SUN CHEMICAL CORP. 185 FOUNDRY ST. NEWARK	0.0010	0.000	0.002	0.000	0.016	0.000	0.001	0.008	0.0000
			(0.023)	(0.245)	(0.057)	(1.930)	(0.040)	(0.131)	(0.926)	(0.000)
1610	THOMASSET COLORS DIVISION 120 LISTER AVE. NEWARK	0.3380	< 0.014	0.166	106.837	0.062	0.273	3.749	< 0.003	0.0017
			(0.005)	(0.059)	(37.900)	(0.022)	(0.097)	(1.330)	(0.001)	(0.001)
1625	TROY CHEMICAL CORP. AVENUE L NEWARK	0.0280	0.013	0.068	0.712	1.705	0.049	1.009	< 0.000	327.8619
			(0.054)	(0.291)	(3.050)	(7.300)	(0.208)	(4.320)	(0.001)	(1404.0)
1630	VICTORY OPTICAL MANUFACTURING CO. 9 MULBERRY PLACE NEWARK	0.0120	< 0.001	0.001	1.241	0.002	17.914	0.291	0.000	0.0001
			(0.006)	(0.005)	(12.400)	(0.022)	(179.000)	(2.910)	(0.002)	(0.001)
1650	WESTINGHOUSE ELECTRIC CORP. 90 ORANGE ST. NEWARK	0.2520	0.032	0.181	6.452	0.132	5.927	4.960	< 0.002	0.0008
			(0.015)	(0.086)	(3.070)	(0.063)	(2.820)	(2.360)	(0.001)	(0.000)
1670	J. WISS & SONS INC. 400 WEST MARKET ST. NEWARK	0.1320	1.040	0.741	0.260	2.818	2.708	0.636	0.332	0.0003
			(0.945)	(0.673)	(0.236)	(2.560)	(2.460)	(0.578)	(0.302)	(0.000)
	SUB-AREA O									
	TOTAL INDUSTRIAL HEAVY METALS LOCATED-PHASE II		51.682	709.748	401.760	3282.164	312.616	1409.173	1.105	328.1803

946020092

FMG000085

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
AFTER PRETREATMENT
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
390	CHARLES BESSELER CO. 219 SOUTH 18TH ST. EAST ORANGE	0.0040	0.000 (0.012)	0.083 (2.500)	0.012 (0.359)	0.001 (0.022)	0.001 (0.038)	0.006 (0.166)	< 0.000 (0.001)	0.0000 (0.001)
920	A & L DYERS INC. 36 SEABURY ST. NEWARK	0.0150	< 0.001 (0.005)	0.005 (0.038)	0.014 (0.108)	0.003 (0.020)	0.013 (0.100)	0.011 (0.087)	< 0.000 (0.001)	0.0000 (0.000)
925	ADCO CHEMICAL RUTHERFORD ST. NEWARK	0.0020	0.000 (0.008)	0.002 (0.090)	0.004 (0.220)	0.001 (0.030)	0.000 (0.010)	0.007 (0.410)	< 0.000 (0.001)	0.0001 (0.005)
930	ALLIANCE CHEMICAL INC. 33 AVE. P NEWARK	0.1170	0.027 (0.028)	0.309 (0.317)	0.418 (0.428)	0.293 (0.300)	0.248 (0.254)	1.756 (1.800)	0.001 (0.001)	0.0024 (0.002)
940	ALL PLATING & CASTING INC. 589 FERRY ST. NEWARK	0.0190	0.015 (0.093)	0.014 (0.091)	0.285 (1.800)	0.003 (0.022)	0.285 (1.800)	0.056 (0.351)	0.039 (0.245)	0.0001 (0.001)
950	ANODIZING CORP. 39 AVE. L NEWARK	0.0090	< 0.000 (0.005)	0.124 (1.650)	0.010 (0.135)	0.021 (0.282)	0.001 (0.011)	0.005 (0.066)	< 0.000 (0.001)	0.0003 (0.003)
952	ARKANSAS CO. INC. 185 FOUNDRY ST. NEWARK	0.0280	0.002 (0.007)	0.008 (0.033)	0.008 (0.036)	0.021 (0.089)	0.007 (0.032)	0.074 (0.315)	< 0.000 (0.001)	0.0029 (0.012)
955	AROL CHEMICAL PRODUCTS CO. 649 FERRY ST. NEWARK	0.0000	< 0.000 (0.005)	0.000 (0.005)	< 0.000 (0.008)	< 0.000 (0.005)	< 0.000 (0.005)	0.000 (0.014)	< 0.000 (0.001)	< 0.0000 (0.000)
960	ART METAL U. S. A. INC. 300 PASSAIC ST. NEWARK	0.1480	0.010 (0.008)	3.086 (2.500)	0.128 (0.104)	0.370 (0.300)	0.032 (0.026)	2.222 (1.800)	< 0.001 (0.001)	0.0006 (0.000)
970	ASHLAND OIL INC. 400 DOREMUS AVE. NEWARK	0.3140	0.047 (0.018)	0.202 (0.077)	0.141 (0.054)	0.278 (0.106)	< 0.013 (0.005)	0.526 (0.201)	< 0.003 (0.001)	0.0029 (0.001)

COMPUTER OUTPUT X
946020093
FMG000086

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
AFTER PRETREATMENT
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
980	ATLAS REFINERY INC. 142 LOCKWOOD ST. NEWARK	0.0220	0.014 (0.077)	0.338 (1.840)	0.066 (0.358)	0.055 (0.300)	0.136 (0.742)	0.027 (0.149)	0.001 (0.007)	0.0003 (0.001)
995	AUTOMATIC PLATING INC. 185 FOUNDRY ST. NEWARK	0.0420	0.022 (0.064)	0.876 (2.500)	0.184 (0.525)	0.033 (0.095)	0.178 (0.508)	0.631 (1.800)	< 0.000 (0.001)	0.0009 (0.002)
1000	AUTOMATIC PLATING METHODS INC. 347 FERRY ST. NEWARK	0.0820	0.342 (0.500)	1.710 (2.500)	1.231 (1.800)	0.193 (0.282)	1.231 (1.800)	1.231 (1.800)	0.002 (0.003)	0.0003 (0.000)
1010	BARBER PHOTOGRAPHIC CO. 378 SIXTH AVE. NEWARK	0.0040	< 0.000 (0.005)	0.001 (0.020)	0.022 (0.649)	0.005 (0.150)	0.003 (0.094)	0.024 (0.720)	0.000 (0.003)	0.0017 (0.050)
1020	BAYONNE BARREL & DRUM CO. 154 RAYMOND BLVD. NEWARK	0.0440	0.183 (0.500)	0.917 (2.500)	0.650 (1.770)	0.110 (0.300)	0.067 (0.183)	0.661 (1.800)	0.021 (0.056)	0.0183 (0.050)
1030	BENJAMIN MOORE & CO. 134 LISTER AVE. NEWARK	0.0320	0.016 (0.060)	0.667 (2.500)	0.480 (1.800)	0.080 (0.300)	0.270 (1.010)	0.480 (1.800)	0.009 (0.033)	0.0000 (0.000)
1032	BENNET HEAT TREATING CO. INC. 690 FERRY ST. NEWARK	0.0160	< 0.001 (0.005)	< 0.001 (0.005)	0.013 (0.098)	< 0.001 (0.005)	< 0.001 (0.005)	0.002 (0.013)	< 0.000 (0.001)	< 0.0000 (0.000)
1035	BESSEMER PROCESSING CO. INC. 135 HAYNES AVE. NEWARK	0.0450	0.021 (0.057)	0.123 (0.327)	0.087 (0.232)	0.113 (0.300)	0.030 (0.080)	0.150 (0.401)	0.016 (0.042)	0.0020 (0.005)
1045	BLACK OXIDE PROCESSING CORP. 85 GOTHARD ST. NEWARK	0.0110	< 0.000 (0.005)	0.229 (2.500)	0.015 (0.168)	< 0.000 (0.005)	< 0.000 (0.005)	0.165 (1.800)	< 0.000 (0.001)	< 0.0000 (0.000)
1050	BLUE LINE INC. 209 PARKHURST ST. NEWARK	0.0160	0.001 (0.008)	0.334 (2.500)	0.240 (1.800)	0.031 (0.233)	0.240 (1.800)	0.063 (0.470)	0.001 (0.011)	0.0004 (0.003)

946020094

FMG000087

PASSAIC VALLEY SEWERAGE COMMISSION -- HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
AFTER PRETREATMENT
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1220	ENGLEHARD INDUSTRIES INC. 429 DELANCEY ST. NEWARK	0.4710	1.787 (0.455)	2.632 (0.670)	7.071 (1.800)	1.178 (0.300)	7.071 (1.800)	7.071 (1.800)	0.090 (0.023)	0.0196 (0.005)
1230	EXPRESS CONTAINER CORP. 105 AVE. L NEWARK	0.0120	< 0.001 (0.005)	0.007 (0.091)	0.007 (0.070)	0.002 (0.022)	0.003 (0.025)	0.008 (0.082)	0.000 (0.001)	0.0001 (0.001)
1240	FAIRMOUNT CHEMICAL CO. 117 BLANCHARD ST. NEWARK	0.7390	0.055 (0.009)	3.285 (0.533)	2.533 (0.411)	1.849 (0.300)	0.290 (0.047)	11.094 (1.800)	0.009 (0.001)	0.0068 (0.001)
1250	FEDERATED METALS CORP. 150 ST. CHARLES ST. NEWARK	0.0100	0.006 (0.074)	0.009 (0.109)	0.098 (1.170)	0.015 (0.178)	0.007 (0.078)	0.014 (0.167)	< 0.000 (0.001)	0.0001 (0.002)
1260	FEDERATED PACIFIC ELECTRIC CO. 150 AVE. L & HERBERT NEWARK	0.1510	0.013 (0.010)	0.481 (0.382)	0.879 (0.698)	0.084 (0.067)	0.042 (0.033)	1.952 (1.550)	0.003 (0.002)	0.0009 (0.001)
1270	GENERAL COLOR CO. 24 AVE B NEWARK	0.0160	0.067 (0.500)	0.005 (0.036)	0.025 (0.185)	< 0.001 (0.005)	< 0.001 (0.005)	0.240 (1.800)	0.001 (0.005)	0.0010 (0.007)
1285	HUMMEL LANOLIN CORP. 185 FOUNDRY ST. NEWARK	0.0280	< 0.001 (0.005)	0.014 (0.059)	0.010 (0.043)	0.070 (0.300)	< 0.001 (0.005)	0.021 (0.092)	0.064 (0.275)	0.0003 (0.001)
1290	HY-GRADE ELECTROPLATING CO. 35 FOURTH ST. NEWARK	0.0090	0.038 (0.500)	0.188 (2.500)	0.135 (1.800)	0.023 (0.300)	0.135 (1.800)	0.135 (1.800)	0.000 (0.004)	0.0000 (0.000)
1300	INDUSTRIAL HARD CHROMIUM CO. 7 ROME ST. NEWARK	0.0100	0.010 (0.116)	0.208 (2.500)	0.150 (1.800)	0.025 (0.300)	0.056 (0.667)	0.150 (1.800)	0.001 (0.014)	0.0000 (0.000)
1310	THE KENNY PRESS INC. 110 EDISON PLACE NEWARK	0.0010	< 0.000 (0.005)	0.000 (0.050)	0.001 (0.142)	0.003 (0.300)	0.000 (0.036)	0.001 (0.083)	< 0.000 (0.001)	0.0000 (0.001)

946020095

FMG000088

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
AFTER PRETREATMENT
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1570	SHIMAN INDUSTRIES INC. 109 MONROE ST. NEWARK	0.0090	0.001 (0.013)	0.004 (0.057)	0.122 (1.620)	0.009 (0.125)	0.011 (0.142)	0.084 (1.120)	0.001 (0.007)	0.0002 (0.003)
1580	THE STANDARD TALLOW CORP. 61 BLANCHARD ST. NEWARK	0.0360	0.002 (0.008)	0.018 (0.059)	0.058 (0.192)	0.054 (0.179)	0.004 (0.012)	0.087 (0.290)	0.001 (0.002)	< 0.0000 (0.000)
1590	STIRRUP METAL PRODUCTS CORP. 215 EMMET ST. NEWARK	0.0040	0.000 (0.008)	0.033 (1.000)	0.036 (1.080)	0.003 (0.100)	0.008 (0.237)	0.017 (0.510)	0.000 (0.003)	0.0000 (0.001)
1600	SUN CHEMICAL CORP. 185 FOUNDRY ST. NEWARK	0.0010	0.000 (0.023)	0.002 (0.245)	0.000 (0.057)	0.003 (0.300)	0.000 (0.040)	0.001 (0.131)	0.008 (0.926)	0.0000 (0.000)
1610	THOMASSET COLORS DIVISION 120 LISTER AVE. NEWARK	0.3380	< 0.014 (0.005)	0.166 (0.059)	5.074 (1.800)	0.062 (0.022)	0.273 (0.097)	3.749 (1.330)	< 0.003 (0.001)	0.0017 (0.001)
1625	TROY CHEMICAL CORP. AVENUE L NEWARK	0.0280	0.013 (0.054)	0.068 (0.291)	0.420 (1.800)	0.070 (0.300)	0.049 (0.208)	0.420 (1.800)	< 0.000 (0.001)	0.0117 (0.050)
1630	VICTORY OPTICAL MANUFACTURING CO. 9 MULBERRY PLACE NEWARK	0.0120	0.001 (0.006)	< 0.001 (0.005)	0.180 (1.800)	0.002 (0.022)	0.180 (1.800)	0.180 (1.800)	0.000 (0.002)	0.0001 (0.001)
1650	WESTINGHOUSE ELECTRIC CORP. 90 ORANGE ST. NEWARK	0.2520	0.032 (0.015)	0.181 (0.086)	3.783 (1.800)	0.132 (0.063)	3.783 (1.800)	3.783 (1.800)	< 0.002 (0.001)	0.0008 (0.000)
1670	J. WISS & SONS INC. 400 WEST MARKET ST. NEWARK	0.1320	0.550 (0.500)	0.741 (0.673)	0.260 (0.236)	0.330 (0.300)	1.982 (1.800)	0.636 (0.578)	0.332 (0.302)	0.0003 (0.000)
	SUB-AREA 0 TOTAL INDUSTRIAL HEAVY METALS LOCATED-PHASE II AFTER PRETREATMENT		6.439	80.189	49.116	16.776	29.499	73.392	1.105	0.1863

946020096

FMG000089

Preliminary Assessment

Foundry Street Site/Arkansas Chemical
171-183 Foundry St.
Newark, Essex County

FMG000090

946020098

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Foundry Street Site/Arkansas Chemical	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 171-183 Foundry Street
03 CITY: Newark	04 STATE: NJ; 05 ZIP CODE: ; 06 COUNTY: Essex; 07 COUNTY CODE: ; 08 CONG DIST:
09 COORDINATES LATITUDE: 40° 43' 34" LONGITUDE: 74° 08' 01"	Block 5005 Lot 5

10 DIRECTIONS TO SITE (Starting from nearest public route)
New Jersey Turnpike to Exit 15 E. Get onto Doremus Ave. and make a right onto Roanoke Ave. Follow Roanoke to Foundry St. The site is approximately 1000 feet down Foundry Street.

III. RESPONSIBLE PARTIES

01 OWNER (if known): City of Newark	02 STREET (Business, mailing, residential): 920 Broad Street
03 CITY: Newark	04 STATE: NJ; 05 ZIP CODE: ; 06 TELEPHONE NUMBER: ( )
07 OPERATOR (if known and different from owner): Arkansas Chemical Co. (former owner & operator)	08 STREET (Business, mailing, residential): 171-183 Foundry St.
09 CITY: Newark	10 STATE: NJ; 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 (CERCLA 103 c) DATE RECEIVED: __/__/__ (Month Day Year) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☐ YES DATE Numerous (Month Day Year)
☐ NO

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
☐ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1943 (Beginning Year) | 1983 (Ending Year) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Numerous hazardous substances including benzene, carbon tetrachloride, 1,4 dioxane, methyl isocyanate, and many other toxic, corrosive and flammable substances have been abandoned at the site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Due to deteriorating conditions present at the site and the presence of flammable, explosive and highly toxic substances, a potential for population exposure exists. The site is near heavily travelled roadways and residential areas, a potential for air, groundwater, surface water and soil contamination also exists.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 3 - Waste Characterization and Part 5 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on site available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Dave Beeman	02 OF (Agency/Organization): NJDEP/DWM/Metro Field Office			03 TELEPHONE NUMBER: (201) 669-3960
04 PERSON RESPONSIBLE FOR ASSESSMENT: Robert Beretsky	05 AGENCY: NJDEP	06 ORGANIZATION: HWM/BPA	07 TELEPHONE NUMBER: (609) 633-2215	08 DATE: __/__/__ (Month Day Year)

EPA FORM 2070-12 (7-81)

946020099

FMG000091

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			Many of the chemicals listed are
OLW	OILY WASTE			taken from an inventory provided
SOL	SOLVENTS			by Mark Von Sternberg of
PSO	PESTICIDES			Arkansas Chemical. The accuracy
OCC	OTHER ORGANIC CHEMICALS			of the inventory is not known.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Butyl Alcohol				
OC	Acetic Anhydrite	108-24-7			
IOC	Ammonium Bromide	12124979			
ACD	70% Methane Sulfonic Acid				
OCC	Ethylene Diamine	107-15-3			
BAS	Soda Flake				
SOL	Perchloroethylene	127-18-4			
OCC	Methanol	67-56-1			
IOC	Silane				
OCC	Isophorone diisocyanate	4098-71-9			
OCC	Propylpipenidine	103-88951			
ACD	Lactic Acid	50215			
OCC	Polyethylene Alycol	25322683			
ACD	Sulfuric Acid	7664-43-9			
IOC	Ammonia	7664-41-7			
OCC	Diethylamine	109-89-7			

V. FEEDSTOCKS (See Appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-12 (7-81)

FMG000092

946020100

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be consistent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	Benzene	71-43-2			
[illegible]L	Carbon Tetrachloride	56-23-5			
OCC	Hexane				
IOC	Phosphoric Anhydride	1314-56-3			
SOL	Acetone	67-64-1			
OCC	1,4 Dioxane	123-91-1			
OCC	Ethyl Amine	75-04-7			
OCC	Ethylene Carbonate	964591			
OCC	Methyl Isocyanate	624-83-9			
SOL	Mineral Spirits				
OCC	Isopropanol	67-63-0			
SOL	Xylol (Xylene)	1330-20-7			
SOL	Chloroform	67-66-3			
IOC	Sodium Nitrate	7631-99-4			
IOC	Sodium Acetate				
IOC	Sodium Formate				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-12 (7-81)

FMG000093

946020101

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must agree)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Isopropanolamine	75-31-0			
OCC	Diisocyanate				
OD	Oleic acid				
OCC	Promanol	71-23-8			
SOL	Naptha solvent	65996-79-4			
OCC	Diethanolamine	111-42-2			
OCC	Ethylenediamine	107-15-3			
SOL	Trichloroethylene	79-01-6			
OCC	Formaldehyde	50-00-0			
OCC	Diethylene glycol				

V. FEEDSTOCKS (See Appendix for most frequently cited CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

See Attachment L for a more legible version as provided by EPA-Edison
Attachment A-1-37 - NJDEP/HSMA/Bureau of Field Operations
Attachment A-30-56 - NJDEP/Environmental Quality/Metro Office
Attachment A-57-59 - NJDEP/Haz. Waste Mgnt./Metro Field Office

EPA FORM 2070-12 (7-81)

946020102

FMG000094

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Chemicals spilled on the ground surface may migrate through the soil column and contaminate groundwater in the area.
Att. B,C

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Spilled chemicals could migrate to storm drains via runoff. Storm drains at the site discharge to the Passaic River.
Att. B,C,D

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE 1/23/81) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Chemical odors were observed by DEP personnel near the tank storage area and in the process building during an inspection at the site.
Att. B,F p. 1

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Poor housekeeping by the former owners and vandalism at the site have allowed potentially incompatible substances to mix. Fuming and smoking bottles of materials were observed during an inspection of the site.
Att. E,F

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Trespassers on the property come into contact with hazardous substances located throughout the site. Extremely hazardous materials including methyl isocyanate have been discovered in easily accessible buildings at the site. Att. G,H,I

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Spillage of chemicals at the site is evidenced by stained areas around storage tanks. The lack of adequate secondary containment systems allows for migration of chemicals into the soil. Att. B,C

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
There are no water supplies within a mile radius of the site, therefore no potential exists.

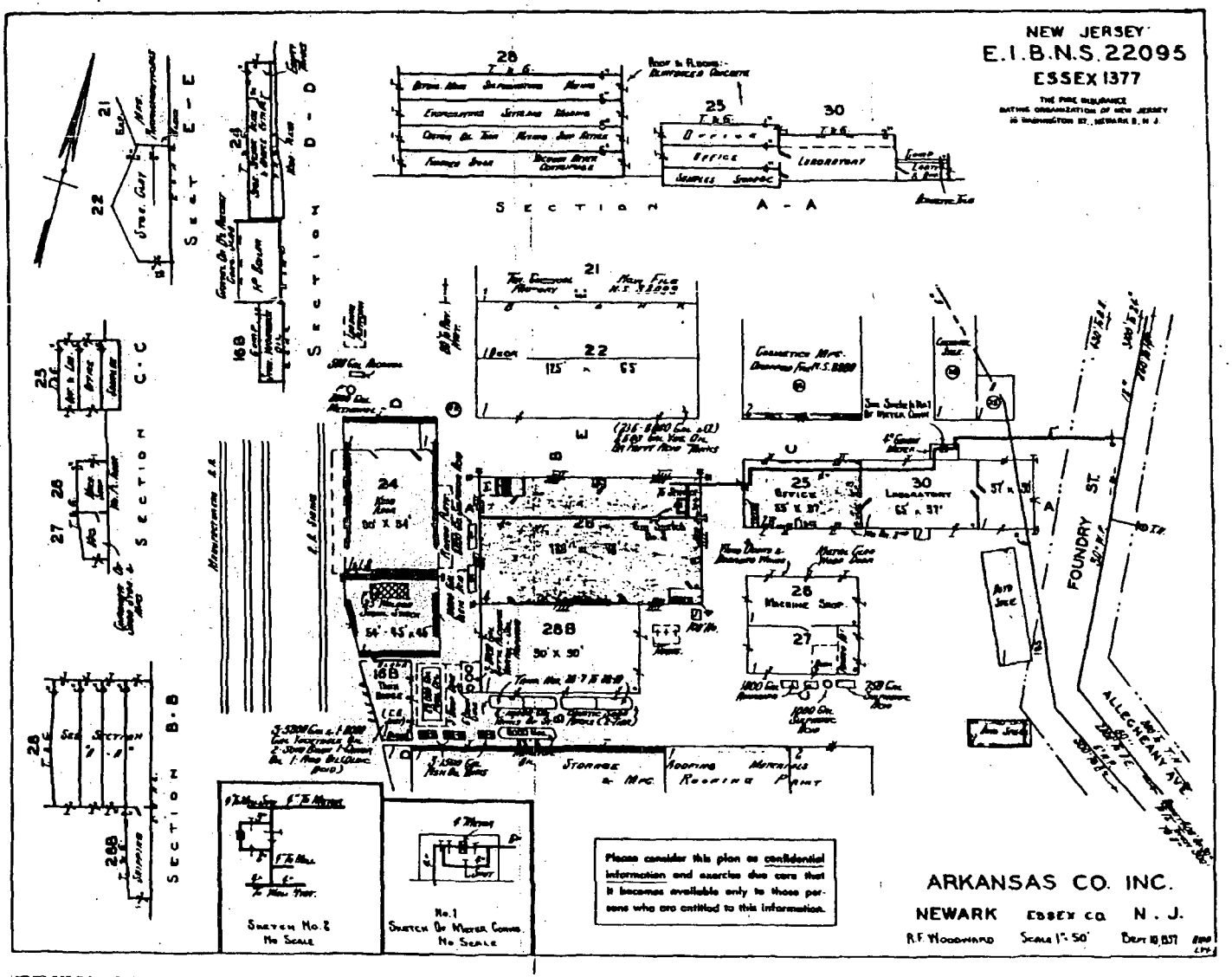
01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Workers involved with the cleanup of the site could be exposed to hazardous materials. Employees of nearby industries could also be exposed to materials or odors from the site.
Att. B,F

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Trespassers on the property could be exposed to hazardous substances located throughout the site. (Motorists travelling on the nearby NJ Turnpike or Route 1 & 9 could be exposed to toxic fumes which could emenate from the site as a result of mixing of incompatible materials or fires at the site.)
Att. G,H

EPA FORM 2070-12 (7-81)

946020103

FMG000095



946020104

FMG000096

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Chemicals migrating offsite via storm drains could damage aquatic flora in the Passaic River.
Att. D

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Chemicals migrating offsite via storm drains could damage aquatic fauna in the Passaic River.
Att. D

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The food chain in the Passaic River could be contaminated by hazardous substances entering the river via storm drains.
Att. D

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: Numerous) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Hazardous materials have been spilled and containers were observed broken, leaking or unsecure. Secondary containment at the site is inadequate to prevent migration of contaminants into soil or groundwater. Att. E-H

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Fires at the site could easily spread to nearby industries. Hazardous materials could damage the Passaic Valley Sewage Treatment plant.
Att. B,D,E,F,K

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Hazardous materilas could contaminate the Passaic Valley Sewage Treatment Plant and disrupt treatment processes. Storm drains could be contaminated by runoff containing hazardous materials.
Att. B,D,K

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: Numerous) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Poor housekeeping by the former owner and vandalism have resulted in hazardous materials being spilled and dumped throughout the site.
Att. E-H

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

The EPA is the lead agency involved with the site. A removal of all materials present and decontamination of buildings and all process vessels at the site are scheduled to begin in May 1987.

V. SOURCES OF INFORMATION

achment A1-37, 55-57 - NJDEP/DHWM/Metro Field Office
Att. A39-54 & 58-61 - NJDEP/Environmental Quality/Metro Field Office
Att. B,C,F,H,K - NJDEP/DHWM/Metro Field Office
Att. D & L - EPA-Edison
Att. E & I 1-8 - NJDEP/HSMA/Bureau Site Operations
Att. I 9

EPA FORM 2070-13 (7-81)

946020105

FMG000097

FOUNDRY STREET SITE/ARKANSAS CHEMICAL COMPANY
185 FOUNDRY STREET
NEWARK, ESSEX COUNTY

The Arkansas Chemical Company manufactured chemicals for the textile industry at 171-183 Foundry Street in Newark, Essex County from 1943 to September 1983. Arkansas Chemical Company owned the property from 1943 until 1978 when Galaxy Inc., a Florida Corporation, purchased the property. Mark Von Sternberg was president of both Galaxy, Inc. and Arkansas Chemcial Company. In September 1983 the City of Newark foreclosed on the property for failure of the company to pay real estate taxes. Arkansas Chemical Company and Galaxy, Inc. filed for voluntary bankruptcy in October and December 1983. Assests to both companies have been liquidated.

In 1984, inspections at the site by the NJDEP had revealed that hazardous materials were abandoned at the site. A Directive Letter was issued to Arkansas Chemical Company by the NJDEP in September 1984 as a result of conditions observed during the inspections. According to the Directive, the company was to secure access to the site, provide a list of materials present, and remove and properly dispose of all containers and contaminated soil at the site. An inventory of materials stored on site was provided by Mark Von Sternberg and funds were provided by the U.S. Bankruptcy Court to initiate cleanup. This initial cleanup consisted of moving the remaining materials outside into one of the buildings. Since the completion of the initial measures in January 1985, no other remedial actions have been undertaken by the company. As of April 1987, laboratory chemicals and approximately 500 drums, many of which contain hazardous or unknown substances remain at the site. Contaminated process vessels and laboratory equipment remain as well.

In May of 1985 the company filed for ECRA (Environmental Cleanup Responsibility Act) status as a result of proposed sale of the property. The deal was terminated in July 1985 and ECRA status was deactivated. The company is subject to ECRA if transfer of property occurs even though they filed for bankruptcy before ECRA was enacted because hazardous materials were stored on site after the December 31, 1983, enactment of ECRA.

Inspections by NJDEP in late 1986 and early 1987 have revealed continued deteriorating conditions at the site. There are six buildings and two sheds on site (see site map), all of which may contain hazardous substances. Building 28, which consists of 4 floors was probably the main process building. Approximately 450 drums are present in this building, many of which are leaking. Also present in this building are 6-10 process tanks, 10-15 holding/mixing tanks and 2 dry material mixers. Many of the lines to the tanks were leaking and powders and resins were spilled throughout the building. According to an inventory of bulk storage tanks at the site (Att: A p. 40), the following substances were present: 1-3500 gallon tank of Formaldehyde, 1-2700 gallon of Emulser OM (tradename), 1-2700 gallon tank of Dergon OM (tradename), 1-4000 gallon tank of Olive Elaine (tradename), 1-5000 gallon tank of Syponie 4-500 (tradename), 1-4000 gallon tank of Ingepal 730 (tradename) and 1-1750 gallon tank of diethylene glycol. It is unknown if any materials remain in these tanks. There are also two laboratories present in Building 28 which also contain chemicals. The drums moved from the outside during the initial cleanup were also stored here and the roof was leaking in many areas.

Buildings 25 and 30 are attached (consider as building 25/30) and consist of offices and laboratories. All of the laboratories contain various amounts of chemicals of which three bottles were observed to be fuming or smoking. Numerous other deficiencies were ceilings and a flooded basement. Many chemical containers were submerged in the flooded basement. Spillage and leakage of chemicals throughout this building is also evident.

Building 24 consists of one story and contains approximately 25 drums of unknown content.

Buildings 26 and 27 (designated building 26/27) are attached and contain storage vessels, a filter press and approximately 20 drums. According to the inventory provided by Arkansas in 1981, (Att: A p. 40) two storage tanks consisting of 1-5000 gallon tank of Ingepal CO-710 (tradename) were inside building 27. The contents of the drums are unknown.

The two on site sheds also contain containers of chemical substances. One shed contains approximately 40 drums of unknown materials. One drum in this shed which was opened contained chunks of a solid beige substance (possibly tallow). It is unknown if the other drums contain similar substances.

The second shed contains approximately 25-5 gallon containers of various chemicals including benzene, carbon tetrachloride, and 1,4 dioxane. A container of methyl isocyamate, which is included in the Toxic Catostrophe Prevention Act as requiring immediate removal, was also discovered and later removed from this shed.

According to the site map, there are 18 storage vessels outside the buildings. These vessels are believed to be empty but may contain residual materials. The site map, which was produced in 1957, labels the contents for each of these vessels. However, it is not believed that the most recent contents of these tanks corresponds to those labeled on the site map. According to the 1981 inventory as supplied by Arkansas, only 12 of the 18 vessels were in use (Att: A p. 40). The contents of the tanks as listed by Arkansas includes 1-2016 gallon and 1-4050 gallon tank of sulfuric acid, 2-10076 gallon tanks of 33% caustic soda, 2-2400 gallon tanks of solvent naptha, 1-10076 gallon tank of ammonia, 1-2400 gallon tank of _?_ 1-2828 gallon tank of N-20080 gallon fuel oil tank.

It should be noted that many of the materials remaining at the site are explosive flammable or incompatible (*see* Att: I for properties of chemicals). Since many materials have mixed or are in danger of mixing, a potential for extremely explosive and hazardous conditions exists at the site.

The leaking ceilings in many of the buildings and the chemicals submerged in the flooded basements also leads to concern since some of the chemicals on the site are water reactive. Acetic anhydride is explosive if contact with water, and phosphorus pentoxide and water are incompatible. Tolyl chloride (benzyl chloride) emits toxic and corrosive fumes if mixed with water. Also, quantities of heat could be generated from mixtures of water and various acids stored on site which could then cause reactions with heat sensitive chemicals. Because of the haphazard storage of materials at the site, any reactions between chemicals will likely result in chain reactions fires and explosions.

FMG000099

Since many of the chemicals will emit toxic and noxious fumes and smoke if a reaction should occur, a high potential for disaster exists because of the proximity of the site to residential areas and heavily travelled roadways. The New Jersey Turnpike is only a few hundred feet to the east of the site and Route 1 and 9 lies about 1000 feet to the west. The nearest residential area is approximately .25 miles west of the site.

Before on-site security was established in January 1987 by NJDEP and EPA, the site was easily accessible to the public. Vandalism, which was evident throughout the site, contributed to spillage and mixing of chemicals inside the buildings. A fire in one of the buildings in January 1987 was attributed to arson and could have been disastrous if it spread to flammable materials. Another cause for concern lies in the possibility that vandals may have unknowingly come into contact with hazardous materials including methyl isocyanate, benzene, chloroform or ispropyl alcohol to name a few. Many of the materials are skin absorbed and extremely toxic.

An inspection by NJDEP personnel in 1981 revealed inadequate secondary containment around the outdoor bulk storage tanks to prevent spilled material from entering the soil (Att: B pp. 1-2). The grounds around the tanks were observed to be stained from numerous spills. Also, materials which were stored outside may have leaked onto the ground surface. Spilled materials may leach through the soil and contaminate groundwater in the area which is used for industrial purposes. The potential also exists for contaminants to migrate to Newark Bay or the Passaic River via groundwater migration. Spilled materials or contaminated runoff may enter storm drains which discharge to the Passaic River. Any contaminants entering the river or Newark Bay may be detrimental to aquatic organisms.

Due to the immediate danger to public safety and the environment and the lack of state funds available for cleanup, the NJDEP requested assistance from the USEPA for removal of hazardous materials and site security in January 1987.

According to Thomas Kady of the EPA regional office in Edison, New Jersey, all materials will be removed from the site, and all on-site vessels and buildings will be decontaminated. Security at the site was initiated in January 1987, and removal of materials is scheduled to begin in May 1987. Long term remedial actions by EPA may include soil and groundwater investigations.

Since EPA is currently the lead agency in the case, no further action is recommended at this time. If soil and groundwater investigations are not undertaken by EPA, it is recommended that the NJDEP (Site Mitigation) develop an investigative program to assess the current potential hazards associated with the site.

A. SPCC INSPECTION FIELD SHEET

(To be completed if SPCC Regulation is applicable to Facility - see 40CFR Part 112.1.)

SEE INSTRUCTIONS ON REVERSE

1a. NAME OF FACILITY
ARKANSAS, INC.

1b. TYPE OF FACILITY
Chem Textile Manufacturer

FACILITY LOCATION
185 Foundry Street Newark, New Jersey 07105 NTR

2a. NAME OF OWNER AND/OR OPERATOR RESPONSIBLE FOR FACILITY
George Reitz (President)

2b. TELEPHONE NUMBER Area Code
(201) 589-0516

2c. MAILING ADDRESS
Same As 1c

3. TYPES OF OIL STORED AND CAPACITY OF ABOVEGROUND AND BURIED STORAGE.
#6 Fuel Oil
20,000 gallon Above ground capacity

4. IS A CERTIFIED SPCC PLAN AVAILABLE FOR INSPECTION? ☐ YES ☐ NO
Plan available - has copyright - 1975 See 10

5. DATE OF INSPECTION
2/17/82

6. NAME AND REGISTRATION NUMBER OF CERTIFYING ENGINEER ☐ NOT AVAILABLE
Edna Prizgint Zdenek
Plan has copyright - 1975 but no P.E number or seal

7. DATE SPCC PLAN WAS CERTIFIED ☐ NOT AVAILABLE
1975

8. IS SPCC PLAN FULLY IMPLEMENTED? *(Are the items called for in the Plan in the interest of spill prevention actually installed - if observable?)*
☐ NOT APPLICABLE
Yes

9. NAME OF WATER BODY THAT POTENTIAL SPILL COULD ENTER; OR IF UNNAMED TRIBUTARY, THEN FIRST NAMED WATERBODY DOWNSTREAM *(If known)*
Storm drains to the Passaic River

10. COMMENTS *(Include comments by owner/operator - write on back or attach extra sheets if needed)*
Apparent Violations:
1. 40CFR 112.3(d)
2. 40 CFR 112.5(b)
3. 40 CFR 112.5(a)
4. 40 CFR 112.7

See reverse side

11a. SPCC NO.
47927

11b. CASE NO.

11c. NPDES NO. ☐ NOT AVAILABLE
N/A

12a. INSPECTOR *(sign)*
William J Kowalski

12b. DATE
2/25/82

12c. INSPECTOR *(print)*
William J Kowalski

EPA Form 7500-53 (9-80)

Attachment D

946020109

FMG000101

INSTRUCTIONS

Trade name of facility and its precise location, using geographical latitude and longitude if necessary.

2. If owner and operator are different persons, give information for both. State relation between them - is operator cosignee, lessee, or employee? Who is responsible for SPCC?

3. Note capacity and whether tanks are full or not. Note tanks which store alternate oils. Check lube storage - whether buried or above-ground *(latter more likely)*.

4. Note adequacy of Plan; if inadequate, state specific defects. Use 10. below for details.

5. Actual date of visit to facility.

6. Include state in which engineer is registered. If Plan was amended and the amended Plan certified by a different engineer, list information for all engineers.

7. List for original Plan and any amended Plans.

8. Summary of deficiencies in Plan implementation. Discuss this with operator and record his opinions and comments in 10. below.

9. Specify distance and direction to nearest named stream, river, lake, bayou, estuary, etc. which will receive runoff from the facility. If facility runoff goes to storm drain, ultimate receiving water should be named.

10. Space for comments by inspector and operator. Inspector should briefly list SPCC equipment actually in use at time of inspection. If facility was not in compliance, inspector should include expected dates of Plan preparation and/or implementation.

11. SPCC No. refers to national EPA Data Bank. Case No. refers to Regional EPA designation.

12. Date on which Field Sheet was actually completed.

10. COMMENTS *(continued from other side)*

(1) SPCC PLAN WAS AVAILABLE AND IMPLEMENTED HOWEVER IT WAS NOT PROPERLY CERTIFIED. PLAN HAD A COPYRIGHT AND DATE RATHER THAN P.E. NUMBER, SEAL AND DATE.

(2) PLAN HAS NOT BEEN UPDATED SINCE 1975

(3) PLAN HAS BEEN IMPLEMENTED AND PROVISIONS CALLED FOR IN THE PLAN HAVE BEEN COMPLETED BUT NO CERTIFIED AMMENDMENTS HAVE BEEN MADE TO THE PLAN.

(4) THE PLAN DOES NOT CONTAIN A PARAGRAPH OR ANY OTHER STATEMENT OF MANAGEMENT APPROVAL.

EPA Form 7500-53 (9-80) REVERSE

946020110

FMG000102

B. SPCC INSPECTION SUMMARY SHEET

SPCC NO. 47927	CASE NO.	DATE OF INSPECTION 2/17/82
NAME OF INSPECTOR (Signature) William J Kowalski		DATE OF DOCUMENTATION REPORT 2/19/82
NAME OF INSPECTOR (Print) WILLIAM J KOWALSKI		NPDES NO. N/A

1. FACILITY

a. COMPANY: ARKANSAS Co. INC.

ADDRESS: 185 FOUNDRY ST. — TELEPHONE: 201-589-0516

CITY: NEWARK — STATE: New Jersey — ZIP CODE: 07105

FACILITY NAME: ARKANSAS Co., INC.

b. FACILITY LOCATION: 185 FOUNDRY ST, New N.J. 07105

PARENT CORPORATION:

ADDRESS:

CITY: — STATE: — ZIP CODE:

c. WATER BODY PROTECTED: STORM DRAINS TO PASSAIC RIVER

2. PURPOSE

TIATION: ☐ Routine Surveillance ☐ Coast Guard Information ☐ Spill Report ☐ Citizen Information ☑ Other (specify): UPDATE OF INSPECTION CONDUCTED by John Burger IN 1980

TYPE: ☐ Plan Preparation ☐ Plan Implementation ☑ Follow-up ☐ Plan Amendment

3. INSPECTION

INDIVIDUAL CONTACTED: TOM CARR - Plant — TITLE: PLANT MANAGER

INDIVIDUAL CONTACTED: — TITLE:

NOTIFICATION: No

4. FINDINGS

SOURCE IN APPARENT COMPLIANCE WITH SPCC REQUIREMENTS:

☐ Yes
- ☐ Have adequate plan
- ☐ Not subject to regulations
  - ☐ Insufficient storage
  - ☐ No reasonable spill expectation
- ☐ Plan fully implemented
- ☐ New facility operational less than 6 months

☑ No
- ☐ No plan
- ☑ Plan not properly certified
- ☑ Plan does not have management approval
- ☐ Plan not maintained at facility manned 8 hrs/day
- ☑ Inadequate plan (detailed SPCC Plan review attached)
- ☐ Plan not fully implemented
- ☑ Plan not reviewed within 3 years

☐ Other

5. ATTACHMENTS (None required if facility in apparent compliance)

	NONE	ATTACHED	ALREADY ON FILE
*Detailed Observations	☐	☑	☐
*Photographs	☑	☐	☐
Slides	☑	☐	☐
Map	☑	☐	☐
*Field Drawing	☑	☐	☐
*Comments	☐	☑	☐
Telephone Conversations	☑	☐	☐
*SPCC Plan	☐	☐	☑

(ALL REQUIRED IF FACILITY IS NOT IN APPARENT COMPLIANCE. If photos not permitted, check "None" and explain. Add "SPCC Plan" to List of Attachments when appropriate.)

EPA Form 7500-52 (6-80)

946020111

FMG000103

C. DETAILED SPCC DOCUMENTATION

SEE INSTRUCTIONS ON PAGE 8

FACILITY: ARKANSAS CO. INC.

DATE OF INSPECTION: 2/17/82

1. FACILITY DESCRIPTION

1a. TYPE OF BUSINESS/OPERATION

NON TRANSPORTATION RELATED - Chemical Textile MANUFACTURER

1b. FACILITY OIL STORAGE

#6 Fuel Oil

1-20,000 gallon CAPACITY above ground TANK

1c. PREVENTION MEASURES PROVIDED

DIKES, RETENTION WALLS, CURBING AND SORBENT MATERIAL

PROPER VALVES AND DRAINAGE

MORE THAN SUFFICIENT SECONDARY CONTAINMENT AROUND STORAGE TANK AND LOADING AREA

SECURITY. FENCED W/NIGHT WATCHMAN

1d. APPEARANCE OF FACILITY (housekeeping)

NEAT AND well KEPT

1e. PAST SPILL HISTORY

NONE

2. RECEIVING WATER *(should a spill occur)*

2a. NAME AND/OR DESCRIPTION

STORM DRAIN APPROXIMATELY 100 FT FROM STORAGE TANK

STORM DRAIN LEADS TO THE PASSAIC RIVER

- [ ] Perennial
- [x] Intermittent
- [ ] Water present at time of inspection
- [ ] Inspector traced discharge to receiving water
- [ ] Inspector traced apparent drainage path to receiving water
- [ ] Receiving water identified by company representative
- [x] Receiving water identified from topo maps
- [ ] Receiving water identified by other means *(specify)*:

2b. PROBABLE FLOW PATH TO RECEIVING WATER

RAIN WATER FLOWS NORTHWARD ACCROSS PROPERTY TO STORM DRAIN. (APPROX 100 ft)

2c. CLIMATIC INFORMATION FROM OWNER/OPERATOR

NOT A FLOOD ZONE

946020113

FMG000105

3. COMMENTS

SECONDARY CONTAINMENT AT THE STORAGE TANK AND LOADING FACILITY IS SUFFICIENT TO INSURE THAT ANY SPILLAGE WOULD NOT LEAVE THE PROPERTY.

946020114

FMG000106

The SPCC Plan for Arkansas Inc. is inadequate due to the following:

1. Inadequate certification - Plan has copyright and date but no certification with a P.E. number or seal - 40CFR 112.3(d)

2. Certified ammendments have not been made to the plan to show completion of improvements and implementation - 40CFR 112.5(a)

3. The plan has not been reviewed or updated since 1975 - 40CFR 112.5 (b)

4. The plan does not contain a statement on management approval 40CFR 112.7

946020115

FMG000107

6. FIELD DRAWINGS (Attach more sheets if needed, and show north arrow or other orientation)

VIOLATIONS lie IN the ADMINISTRATIVE PART of the SPCC PLAN

FACILITY	INSPECTION DATE
ARKANSAS INC	2/17/82
INSPECTOR William J Kowalski William J Kowalski	

EPA Form 7500-54 (9-80)

D-8

PAGE 6 OF 8

946020116

FMG000108

7. PHOTOGRAPHS *(Attach more sheets if needed)*	
SUBJECT	FACILITY
PHOTOGRAPHER	WITNESSES
WITNESSES	WITNESSES
DATE/TIMEDIRECTION	CAMERA/FILM/ATTACHMENTS
SUBJECT	FACILITY
PHOTOGRAPHER	WITNESSES
WITNESSES	WITNESSES
DATE/TIME/DIRECTION	CAMERA/FILM/ATTACHMENTS

ATTACH PHOTOGRAPHS HERE

VIOLATIONS lie IN the ADMINISTRATIVE PART OF the SPCC PLAN

FMG000109

946020117

Form ADM-012

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO TO FILE DATE 4 JUN 1987

FROM ROBERT BERETSKY, HSMS IV, BUREAU OF PLANNING AND ASSESSMENT

SUBJECT WINDSHIELD SURVEY AT FOUNDRY STREET SITE

On 4/29/87, a windshield survey was conducted at the Foundry Street Site by Leslie Solomon and Robert Beretsky of the Bureau of Planning and Assessment. The site is located at 185 Foundry Street in Newark and consists of Arkansas Chemical Company, Automatic Electroplating, Avon Drum Company, Berg (Conus) Chemical Company, Coronet Chemical Company (vacated), CWC Industries, Fleet Autoelectric Company, Hummel-Lanolin Corp. (Croda), Refinery for Electronics (RFE), and Sun Chemical Company, among others.

Numerous defincies were observed at the site during the windshield survey. It was noted that security is inadequate to prevent access to the site by unauthorized personnel. No barriers such as fences, exist near the railroad tracks in the rear portion of the property. Access to this area is easily gained off of Roanoke Ave. Much of the existing fence along Foundry Street, especially in front of Arkansas Chemical Company, was noted to be falling down. It should also be noted that although a security guard is present 24 hours/day at the Arkansas Chemical Company as a result of EPA cleanup actions, the lack of adequate physical barriers still allows easy access to the site. It is unknown what type of security measures are present at the rear of the Arkansas facility since it could not be seen from our vantage point.

Drums were observed throughout the site and are easily accessible to the public. Approximately 75 x 55 gallon drums of unknown materials were being stored in the rear portion of the property along the railroad tracks. Flammable labels were affixed to many of these drums and no barriers were present to prevent access to the drums. A closed bed truck was parked in the rear portion of the property and may contain hazardous materials. It is not known who owns the truck or the drums. The rear of the property near Arkansas Chemical could not be observed from our vantage point, therefore it is unknown if additional drums/materials are stored along the railroad tracks in this area.

Aproximately 300 x 55 gallon drums of unknown materials were observed in a fenced area along Roanoke Ave. Many of these drums are stored against the fence and are easily accessible. It is believed these drums belong to the Avon Drum Company.

Drums of unknown materials were also observed along many alleys within the site, but the owners of these drums are also unknown.

As we drove by the Sun Chemical plant, the ground, building surfaces and drums stored near the plant were stained purple. It is believed these stains are from pigments manufactured by the Sun Chemical Company. The contents of the drums stored near Sun Chemical is not known.

It was also observed that although most of the ground surface at the site is covered by asphalt or concrete, much of the cover material is cracked or broken which would permit spilled materials to enter the soil. Materials may then leach through the soil and contaminate groundwater in the area. Storm drains were also observed which would allow spilled materials to migrate off site.

FMG000109-A

946020119

It should also be noted that many of the buildings are in close proximity (10-15') of each other which would allow fires or explosions to spread easily throughout the site. Many of the companies at the site store flammable, explosive and incompatible materials which would emit toxic or noxious fumes in the event of a fire or the mixing of incompatible materials. This is of immediate concern due to the proximity of the site to the New Jersey Turnpike which lies approximately 100 feet to the east.

Since we were conducting a windshield survey of the site, we could not get close enough to the drums to determine how much material they contained or if they were leaking. It should be noted, though, that all drums observed are exposed to the weather.

HS203:mz

FMG000109-B

946020120

FOUNDRY STREET COMPLEX
ATTACHMENT 4

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
LANCE R. MILLER, DIRECTOR
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

MEMORANDUM

TO: Foundry Street Complex File

FROM: Paul Smith, Investigator
Special Investigations Section
Bureau of Compliance and Technical Services

SUBJECT: Foundry Street Complex Site Inspection
(November 7, 1990)

DATE: November 15, 1990

Paul Smith and Carlton Dudley, Bureau of Compliance and Technical Services (BCTS), Special Investigations Section (SIS) conducted a site inspection of the Foundry Street Complex on November 7, 1990. Shortly after our arrival on site, we were approached by Matt Freestone, Process Control Manager, Sun Chemical. This writer informed Mr. Freestone that the NJDEP was conducting an inspection of the complex (ie. Arkansas Chemical, Conus Chemical). Mr. Freestone described that the following companies were operating on site: Automatic Electroplating, CWC Industries, a drum company and other small companies which he did not know the names. He further indicated that CWC was in the process of moving from Building #18 to the former Hummel Lanolin Plant located on the corner of Foundry Street and Roanoke Avenue. Mr. Freestone also stated that the land on the east side of Foundry Street, a former drive-in theater, was being developed into a multiple (ten) movie theater.

P. Smith and C. Dudley departed the vehicle at approximately 1050 hours. While walking along Foundry Street towards the southern portion of the site, a storm drain located on the street, in front of Sun Chemical, contained standing water with a noticeable sheen on it.

The gate for Arkansas Chemical Company on Foundry Street was double locked. A sign, "No Trespassing" was affixed to the gate. The sign also stated for information to contact the Newark Office of Property Management at 733-3997 or 733-3914. Numerous automobile tires were observed scattered throughout the front portion of the plant. A 55 gallon drum was lying on its side adjacent to Building #25.

New Jersey is an Equal Opportunity Employer
Recycled Paper

Proceeding along Foundry Street, we arrived at Ashland Chemical's "west plant" which makes up the southern most portion of the Foundry Street Complex. A white cement block building, markings identified the building as #19, was located approximately 15 feet off the street. Gates on the north and south side of Building #19 were securely locked. In addition, two steel posts were cemented into the ground behind the gate on the north side of the building. From the street, eight tank wagons were positioned at the rear, northeast corner of the property. In addition, one pick-up truck and one tractor (truck) were also on the premises. No markings were observed on the vehicles.

Access into the complex was made through a driveway located between Arkansas Chemical and Sun Chemical. The driveway was stained with a magenta colored substance, which also existed on Sun Chemical's property. A strip like drain running down the center of the driveway contained standing water. A sheen was noted on the surface of the water. Portions of the drain were exposed, because steel plates covering the drain had been removed or fallen into the drain.

Arkansas Chemical was entered through an alley located between Buildings #25 and #28 (See Site Map Sketch). This alley contained a strip drain which originated from Buildings #26 and #27, and was connected to the drain in the driveway. The sides of the drain contained a tar like residue. Solid waste (ie. construction debris and tires) had been dumped on the south-southeast portion of the premises. Further investigation revealed that some of the tires were involved in a fire that had damaged the southern portion of Building #28. The roof of a small shed (S-2) situated along the southern property line had also been damaged by the fire. A gas cylinder approximately 100 pounds and seven five gallon containers were inside of the shed. Two reactors located on the south side of Building #27 were damaged by fire which appeared to be a separate incident. A yellow, solid material was observed underneath one of the reactors. The bottom of this reactor was corroded. Graffitti was noted on the side of Building #26 which indicates that individuals are coming onto the property and are probably responsible for the noted tire fires.

P. Smith and C. Dudley were confronted by a worker while inspecting Arkansas Chemical. This individual later identified himself as Gerald Borriello, President, Automatic Electro-Plating. Mr. Borriello stated that the driveway between his business located in Buildings #21 and #22, and Arkansas Chemical occasionally flood. He attributed this to water flowing from the rear of Arkansas Chemical. Water was observed flowing down the drain as Mr. Borriello led us to the rear of Arkansas Chemical. The water in the drain had a petroleum sheen on its surface and a heavy scum existed on the bottom of the drain.

Drains were also observed behind Building #28 of Arkansas Chemical. Mr. Borriello indicated that Arkansas Chemical use to discharge its waste into these drains. Further observation revealed that water was coming from cracks in the concrete, and flowing into the drain. A petroleum like sheen was present on water in the drain at this location. Mr. Borriello stated that he has contacted the Newark Department of Engineering about the flooding problem. The city indicated that no water mains are located in this area. It was suggested that the water may be due to a high water table

in the immediate area. Mr. Borriello stated that water is encountered only a few feet below the ground's surface. He also indicated that the state is holding his company responsible for contamination being discharged onto the ground at the complex. Automatic Electro-Plating discharges its waste into a sanitary sewer operated by the city. However, the sewer line is partially clogged with sediment, resulting in a back-up which floods the area. Mr. Borriello wanted to know what the State (Department) can do to resolve this problem. This writer stated that the clogged sewer was not the State's problem, because the sewer is maintained by the Passaic Valley Sewerage Authority (PVSA). It was suggested that Mr. Borriello band together with other operators in the complex using the sewer and petition the PVSC to resolve the problem, since they pay a fee to use the system.

Mr. Borriello indicated Automatic Electro-Plating is presently involved with ECRA and has to conduct sampling on site. He mentioned that soil borings made by Sun Chemical indicated the plant was built on fill material consisting of zinc slag. Mr. Borriello stated that zinc mining was once big in New Jersey attributed zinc and lead contamination on site to the fill material.

The site inspection resumed after Mr. Borriello departed. Automatic Electro-Plating has a material storage area located on the south side of Building #19 (See Site Map). The storage area is surrounded by a cyclone fence topped with razor wire and contains a concrete pad. This pad appeared to be stained. Plastic carboys confined in wooden crates were stored adjacent to Building #19 and along the southern and western portion of the storage area. It should be noted that any spilled or leaking materials in this area will migrate towards the driveway (east) due to the slope of the grade. A small area, approximately 2' x 2', appeared to be saturated with oil near the northwest corner of Building #19. Labels for poisons and corrosives were affixed to the window of a door on Building #19.

Eight compressed gas cylinders were discovered on the south side of Building #15, situated between a smoke stack and Building #20 which is attached to the southeast corner of Building #15. Seven of the cylinders were orange and one was yellow. Two of the orange cylinders were marked "difloromethane" and "refrigerant" on their sides. The yellow cylinder contained no visible markings from our vantage point. Most of the cylinders were lying on their side, with approximately three standing upright. Some of the cylinders lacked protective caps over the valves. In addition to the cylinders, two empty drums (one blue 35 gallon and one black 55 gallon) were also lying on their sides at this location.

Located immediately east of Building #15, across the driveway is the former CWC Industry facility (Building #18). A fenced storage area is situated on the southwest corner of the facility. Upon investigation, approximately nine (9), five gallon pails; five (5) two gallon glass jars; and four (4), two gallon containers (square) were observed within the fenced area. The glass jars appeared to contain red and white paints. The contents of a small gold container, approximately two gallon capacity, appeared to have been poured into a larger open pail. Blue and white colored pigments (powder) was spilled on the concrete pad in the storage area. Numerous cracks existed in this pad. A drain, located outside of the fence, was surrounded by numerous drum caps. Any spilled or leaking material stored

here could penetrate the ground through the cracks or migrate into the driveway containing the strip drains, since the area was not diked.

In the front portion of Building #18 facing Foundry Street (northeast corner), several fiber drums and steel (55) gallon drums contained various types of solid wastes (ie. paper, cardboard, plastic). In addition to the drums, two small dumpsters were also present. The bottom of one dumpster, next to building had corroded through and a oily residue was observed beneath the dumpster. Oily debris also was present inside this dumpster. An underground storage tank may be present in this area, due to vent pipes observed adjacent to the Building #18.

A small vacant lot exists on the northwest side of Building #18 and to the south of Building #14 which is occupied by County Lift Truck Service. Debris (ie. car parts, truck parts, wood, drums, etc.) was scattered throughout this area and the ground was stained with oil. An oily emulsion was observed in a container with car parts inside. The ground adjacent to this container was also stained with oil. A boat (New Jersey Registration #NJ8128FN, March 1991) and trailer (License Plate # NJ Trailer T74BKJ) were parked on this lot.

While inspecting the lot P. Smith and C. Dudley spoke with John Curtin, County Lift Truck Service, who operates a forklift rental business in Building #14. Mr. Curtin indicated that County Lift has operated in the complex for approximately three years and is attempting to move into a building located immediately east of the vacant lot (See Attached Site Map). Mr. Curtin also said that the complex has experienced a rash of vandalism in the past.

Conus Chemical had previously occupied Building #3, #7 and #8 which are situated to the west of Building #14. The U.S. EPA conducted a cleanup of the Conus facility in the early months of 1990. Numerous stacked drums still remained behind the building in a fenced area adjacent to the railroad tracks. A hole was observed in the fence surrounding the drums. It appeared that someone had tried to remove a drum through the hole. A phenolic like odor was encountered behind Conus during the inspection.

A small space separates Building #9, occupied by Morrel Truck Service, from Building #14. Two trucks and a front-end loader were parked on the lot during the inspection. Truck engines, transmissions, and rears were also present on the lot which was heavily saturated with oil. Speedy dry had been recently applied to a spill.

RFE Industries occupies Building #1 which abute Roanoke Avenue on its northside. According to John Curtin of County Lift Truck Service, an explosion caused by flammable solvent occurred at RFE Industries last New Year's Eve. Approximately ten (10), 55 gallon drums were siting in the driveway outside of RFE. These drums were marked "denatured alcohol" and closer inspection revealed that one of the drums had been turned upside down to allow any remaining contents to drain out. The drum's contents flowed into a large puddle of water in the driveway and was observed to be volatilizing. A man who identified himself as Dick Brain, was watching the business for the owner. Plumbers were installing new heating lines inside the building. According to Mr. Brain, RFE has manufactured flux used to

make circuit boards in the building for approximately 12 years. Raw materials include rosin and alcohol which are blended and packaged in containers. Mr. Brain indicated that the owner can be contacted at (201) 344-3198.

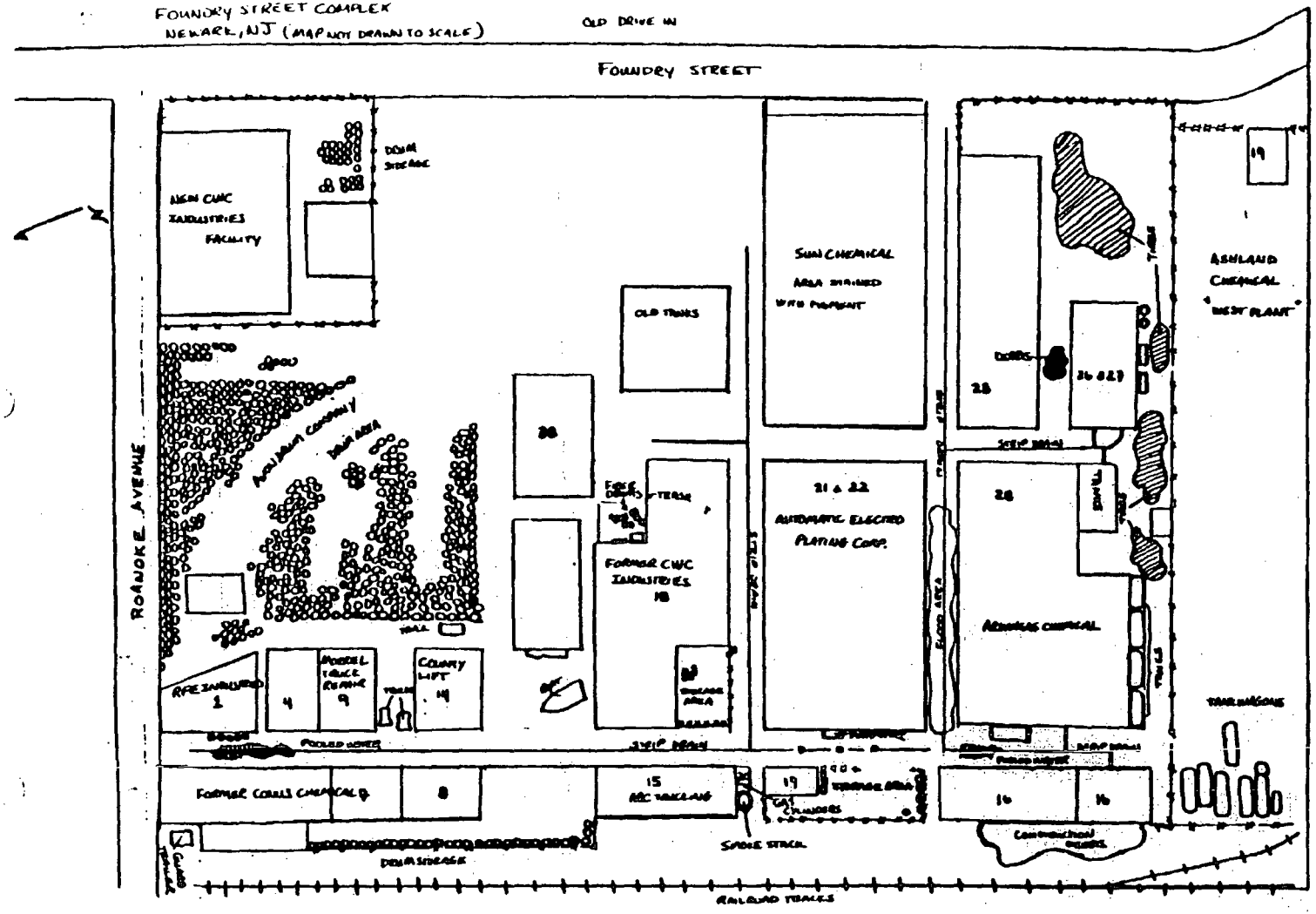
The area situated to the east-northeast of Buildings #1, #4, #9 and #14 is occupied by Avon Drum Company. Hundreds of various kinds (ie. steel, plastic, 55 gallon, 35 gallon) of drums were being stored on an area encompassing roughly one half acre. A strong solvent like odor was encountered as this writer approached the drum company. Drums were stored directly on the ground which was covered with gravel. The gravel was stained with oils, resins and other unknown materials. Two workers were approached on the premises and asked if the manager was present. One of the workers indicated that the manager was not present, and to return later. John Curtin, County Lift Truck Service and Gerald Borriello, Automatic Electro-Plating indicated that Avon Drum Company washes drums out on the premises. The wash water flows into the driveway located between Conus Chemical and RFE Industries.

CWC Industries manufactures plastic ribbons in the former Hummel Lanolin facility located on the corner of Foundry Street and Roanoke Avenue. The company is still in the process of moving into the building from its former location in Building #18. Numerous drums were stored on the south side of the property. Some of these drums were open and only covered by plastic. This writer spoke with Baldwin Chan, son of the owner, concerning the drums covered with plastic. Chan indicated that the drums contain paints used to color the plastic ribbons made on site. He also indicated that all paints are recycled and the company has only produced approximately 11 drums of waste in the last twenty (20) years. According to Chan waste are only generated when raw materials (ie. alcohols, keytones, mineral spirits) become contaminated with water or another substance.

PS:lmc
FOUNDRY2/LMCMDB

FMG000115

FOUNDRY STREET COMPLEX
NEWARK, NJ (MAP NOT DRAWN TO SCALE)



9460201 27

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
LANCE R. MILLER, DIRECTOR
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

RECEIVED
APR 3 1991

MEMORANDUM

TO: Linda Grayson, Chief
Bureau of Planning and Assessment

FROM: Doug Stuart, Acting Chief
Bureau of Compliance and Technical Services

SUBJECT: Responsible Party Investigation
Foundry Street Complex
(AKA Arkansas Chemical, Hummel Chemical)
185 Foundry Street, Newark, NJ

The Bureau of Compliance and Technical Services' Special Investigation Section has prepared the attached Responsible Party Investigation Summary for the subject case to assist the Bureau of Planning and Assessment in its site evaluation.

Please be advised that referenced key documents are maintained in this bureau's files. Should you have any questions in this matter, do not hesitate to contact me at (609) 633-0708.

lmc
c Y. Yacoub, Chief, MBFO
P. Smith, Investigator, SIS/BCTS
B. Patterson, ECRA
RPIU File

New Jersey is an Equal Opportunity Employer
Recycled Paper

FOUNDRY STREET COMPLEX
AKA ARKANSAS CHEMICAL AND HUMMEL CHEMICAL

SUMMARY

The Foundry Street Complex consists of six separate parcels of land, Lots 4 (Block 5005); Lot 5 (Block 5005); Lot 6 (Block 5005); Lot 10 (Block 5005); Lot 21 (Block 5005); and Lot 22 (Block 5005), see Attachment 1. The site is located in the Iron Bound Section of Newark and is situated between Foundry Street on the east, the former Manufactures Railroad on the west, and Roanoke Avenue on the north. Bordering the southern portion of the site is the New Jersey Turnpike.

Approximately 30 small buildings are situated throughout the complex. The buildings are separated by narrow driveways which have strip-like drains in the middle of the lane. These drains are connected to an industrial sewer line on Roanoke Avenue and receive surface water run-off and industrial discharge from companies in the complex. The complex is easily accessible from numerous locations.

Historically, the Foundry Street Complex has been occupied by a variety of chemical manufacturing industries. One of the first known companies associated with the site was Central Dyestuff and Chemical Company (CDC), a New Jersey Corporation. CDC acquired the property in three different portions from Waldron Brothers Realty Company, Municipal Investment Company, and part of the premises known as Plum Point Lane duly vacated by the City of Newark. CDC manufactured color specialties which included oranges, fast reds, scarlets, browns, chrysoidine blacks, oil soluble colors, and a large variety of colors and dyes used for cakes, varnishes, inks, stains, straw, leather, etc.

On August 13, 1930, Central Dyestuff and Chemical Company merged with Consolidated Color and Chemical Company (CCC). The latter name was retained by the new corporation which continued to operate on site.

In January of 1936, Arkansas Company, Inc., a New York Corporation, executed a three year lease for space in buildings designated as #16, #24, #26, #27, #28, #32 and #35 with CCC. Consolidated Color and Chemical gave Arkansas the sole right and option to purchase the demised property. However, this option expired on October 31, 1938. After executing the lease with Arkansas, CCC changed their name to H.A. Metz & Company Inc., a New Jersey Corporation, on March 2, 1936. H.A. Metz & Company name was changed to Roanoke, Inc., a New Jersey Corporation, on May 24, 1937.

In January, 1939, Roanoke, Inc. sold the property which now consists of Lots 4, 5, 21 and 22 to Chemical Industries, Inc. for a sum of $10.00.

Prior to the sale of the premises, a ten year lease which became effective February 1, 1939, was negotiated between Arkansas Company, Inc., Chemical Industries, Inc. and Roanoke Inc. Arkansas Company's new lease still contained the right and option to purchase the premises which expired on November 1, 1943. Apparently, Arkansas and Chemical Industries, Inc. had negotiated the sale of the property before the November 1 deadline. The

FMG000117

sale was finalized on December 27, 1943. The Newark Tax Map now designates this property as Lot 5 (Block 5005).

ARKANSAS COMPANY, INC.

Arkansas Company, Inc. (Arkansas Chemical) manufactured textile chemicals at the facility which included chelating agents, dye carriers, emulsifying agents, fire retardants, fungicides, resin finishes and water repellents.

In 1975, Arkansas was issued a Notice of Violation (NOV) by the U.S. EPA, Region II, for failure to implement a Spill Prevention Control and Countermeasure Plan for a 20,000 gallon storage tank containing No. 6 fuel oil. It is not known if any penalties were assessed against Arkansas for the violation.

Arkansas Chemical sold the property (Lot 5) to Galaxy, Inc. on February 23, 1978, but continued to operate on the premises as a tenant. The City of Newark foreclosed upon the property, for unpaid taxes, in September of 1983. Both Arkansas and Galaxy, Inc. subsequently filed for bankruptcy, under Chapter 11, in the United States Bankruptcy Court for the District of New Jersey.

Sometime thereafter, Arkansas Chemical ceased operations at the facility. NJDEP personnel discovered approximately 250 abandoned 55 gallon drums on the property during a site inspection on April 30, 1984. Labels found on the drums indicated that they contained benzene chloride, perchloroethylene, methanol, silane, isophorondiisocyanate, lactic acid and polyethylene glycol. Some of the drums were noted leaking their contents. Oil spillage was discovered on the rear portion of the property where open containers of petroleum products were stored.

The Division of Waste Management (DWM) issued a Directive Letter to Arkansas on September 21, 1984. Arkansas was directed pursuant to the Spill Compensation and Control Act, to immediately initiate remedial measures at the site which included: Securing access onto the site; listing all materials stored on site within fourteen days upon receipt of the directive; and properly removing and disposing of all containers and contaminated soil in accordance with Department regulation.

Howard S. Greenberg, registered agent for Arkansas, informed the NJDEP by letter dated October 3, 1984, that remedial contractors were being sought. A supplemental letter dated October 23, 1984, provided the names of potential contractors which included: Atlantic Remedial Constructors, Inc., Clean Venture, Inc. and Rollins Field Service, Inc. The letter also stated that Elson T. Killian Associates had been hired to oversee cleanup activities. A cleanup proposal was submitted by Clean Venture, Inc. in November, 1984.

Approximately 500 additional drums were discovered in building No. 28 during a subsequent inspection. Many of the drums were labeled for corrosive, flammable and poisonous materials. An unspecified number of five gallon pails were also found in an outdoor shed.

The United States Bankruptcy Court authorized funds to secure the drums. On January 3, 1985, Cycle Chem commenced cleanup operations by moving drums located in the outside yard into building No. 28A. This phase of the cleanup was completed on the following day. No further actions were taken in this response.

CWC Realty Company made a "contract of sale" for Lot 5, with Galaxy, Inc. on May 10, 1985. The sale of the property never occurred due to a potential costly cleanup.

In 1986, the City of Newark took steps to secure the buildings of Arkansas Company, Inc. Such efforts proved to be ineffective. Vandals routinely broke into the buildings and were responsible for a fire which occurred at the facility. The buildings on the property began to deteriorate due to leaks in the roof. This allowed rain to enter the buildings and caused drums stored inside to corrode and release their contents.

The USEPA Region II Technical Assistance Team took control of the Arkansas Chemical facility in January, 1987. A cleanup commenced shortly thereafter and continued over the next two years. By February 2, 1989, all hazardous materials which consisted of base neutrals compounds, acids, cyanides, flammables, peroxides, halogenated organics, oxidizers and organics were removed from the facility. EPA's response did not include remediation of contaminated soils and ground water.

LOT 4, BLOCK 5005

Kem Realty Company purchased Lot 4 (Block 5005), 96-144 Roanoke Avenue, from Chemical Industries Inc. on May 8, 1962. The City of Newark subsequently approved a subdivision of the lot on January 6, 1964. Approximately 0.87 acres was taken from the northeast corner of Lot 4 and designated as Lot 21 (Block 5005).

HUMMEL LANOLIN CORPORATION

Hummel Lanolin Corporation (HLC), a wholly owned subsidiary of Croda Inc., EPA ID #NJD002175016, manufactures lanolin and lanolin derivatives used as formulation aids for the cosmetic industry. HLC began operating on the property as a tenant in the late fifties.

On February 28, 1964, Hummel Lanolin purchased Lot 21 from Kem Realty. The property contained a single building that was built in 1947 by Chemical Industries, Inc. Apparently, this building was once used to store food and flavor ingredients by Masehmeirer Aromatics, before it was occupied by HLC. In 1964, a warehouse was constructed and an extension was made to this warehouse in 1969-1970.

HLC blended mixtures of lanolin and lanolin derivatives with mineral oils, paraffin waxes, fatty acids, and alcohols. The manufacturing of lanolin involved four stages. Wool grease was first heated until it became a liquid and sodium chloride, citric acid, and trisodium EDTA were then added. Next, hot water was sprayed over the mixture which settled overnight. Fatty acids contained in the mixture were neutralized with isopropanol, soda ash, and caustic soda solution. The mixture was then aggregated and allowed to

FMG000119

settle overnight once again. Upon completion of this process, the product was ready for washing and bleaching. In this stage, soap stock and interface used to clean the lanolin were drawn off the mixture and pumped to a tank for subsequent treatment. The remaining grease was washed a second time to remove any residual soap and allowed to air dry. A hydrogen peroxide solution was then used to bleach the wool grease.

Soap stock and wash water generated from the manufacturing process were neutralized with either sulfuric acid or hydrochloric acid to free water insoluble fatty acids. The fatty acids would float to the surface and the remaining acid solution was pumped to another tank where it was neutralized with caustic soda or soda ash to a pH of 5.5. The neutralization solution was discharged into the Passaic Valley Sewerage Authority. Fatty acids recovered from the neutralization process were recycled in lanolin derivatives.

In September of 1986, Hummel Lanolin Corporation entered into an "Agreement of Sale" of the premises with Custom Foil Company, Division of CWC Industries. The prospective sale of the property activated the Environmental Cleanup Responsibility Act. Consequently, HLC hired Dames & Moore, an environmental consultant, to investigate the property and determine if any potential sources of contamination existed on site. The location of a former underground storage tank was one of the major environmental concerns of the ECRA investigation. Borings made in the vicinity of the tank revealed the presence of petroleum hydrocarbon (PHC) contamination. Soil samples collected at a depth of 5.0 - 5.5 feet contained higher levels of PHCs than samples collected at the base of the tank. Dames & Moore attributed the contamination to spillage from tank refilling operations. Base neutral compounds (B/N) were also detected in three of the soil samples taken near the tank.

The presence of B/Ns warranted further investigation and a ground water investigation was conducted by Dames & Moore. During the installation of monitoring wells in the area of the former underground storage tank, a black sludge like material was encountered in the location of monitoring well #1. A soil sample collected from a soil boring made near this monitoring well on August 13, 1987 contained volatile organic compounds (VOC), B/Ns, pesticides (i.e. Beta BHC and delta BHC) and priority pollutant metals. Dames & Moore concluded that the contamination was probably due to a leak in the sewer line which passes underneath the property and receives waste from an electroplating company (Automatic Electro-Plating) located upgradient of the sewer line.

Additional sampling was conducted to determine if the contamination was from an on site or off site source. Six soil borings (B1-B6) were made throughout the southwest portion of Lot 21 and one sediment sample was collected from a manhole in the sewer line located upgradient of HLC's process building. The soil samples and sediment sample contained VOCs, metals, and PHC. B/Ns and pesticides (i.e. heptaclor, aldrin, 4-4' DDT) were only detected in the soil samples.

Floor drains in the process building were also investigated as a potential source of contamination. A soil sample (BSW-1) was collected from beneath a floor drain in the southwest corner of the process building in September,

1988. The drain was the closest to where the sludge contamination existed and contained VOCs, B/N and metals below ECRA action levels. The floor drains were determined not to be a source of the sludge material.

A third possible source investigated was Hummel Lanolin's drainage basin. The basin was used to collect effluent samples before being discharged into the industrial sewer system. The basin and pipe connected to the sewer was cleaned out on October 14, 1988. During the clean out, a black liquid flowed into the basin from the industrial sewer line. Dames & Moore collected one sludge sample (WC-1) and one liquid sample (WC-2). Both samples contained VOCs, PHCs and total cyanide. Sulfides and corrosivity were below EPA maximum levels. Sample WC-1 also contained five B/Ns, below method detection limits, and priority pollutant metals (i.e. cadmium, copper, lead and zinc). Similar metals were detected in the upgradient manhole in the main industrial sewer. It should be noted that the drainage basin is located downgradient of the sludge contamination. The sludge contamination was determined to originate from an off site source (i.e. via the industrial sewer).

LOT 22, BLOCK 5005

A major subdivision of Lot 4 (Block 5005), was approved by the City of Newark, Central Planning Board, on March 1, 1971. Consequently, Lot 22, 159-169 Foundry Street, was formed from the southern portion of Lot 4. Kem Realty Company conveyed this new parcel containing approximately 1.65 acres to the Foundry Street Corporation on May 3, 1971. The Foundry Street Corporation leases the property to Automatic Electro-Plating Corporation, Sun Chemical Corporation, and Fleet Auto Electric.

SUN CHEMICAL CORPORATION

Sun Chemical Corporation (Sun), Pigment Division, EPA ID #NJD002458842, manufactures quincridone pigments in buildings #23, #31, #32, #33 and #34 located on the eastern portion of Lot 22 (See Attachment 2). Polychrome Corporation, Cellomer Division, operated here prior to 1967.

Quinacridone pigments are highly colored, insoluble pigments, and range in color from red to violet. The pigments are used in the automobile industry, printing inks, and plastics. Quinacridones are produced by the cyclo dehydration of dianilino-terephthalic acids in polyphosphoric acid.

Sun uses two basic methods to produce red and violet pigments. The red pigment is made by mixing polyphosphoric acid and dianilino-terephthalic acid together and heated, to dehydrate the dianilino-terephthalic acid. The substance is pumped to another tank containing water and the slurry produced is heated under reflux, then pumped through a filter press where the crude pigment is collected. Effluent from the press which consists mainly of phosphoric acid, is pumped to a storage tank for subsequent removal off site. The crude pigment is refluxed a second time with glacial acetic acid and the finished product is pumped to a filter press for collection. Spent acid generated from this process is pumped to a tank where it is neutralized with caustic soda and discharged to the Passaic Valley Sewerage Commission.

In producing violet pigment, polyphosphoric acid and dianilino-terephthalic acid are mixed together and heated, to dehydrate the dianilino-terephthalic acid. The remaining material is added to methyl alcohol and refluxed for several hours. Water is added and the mixture is distilled to recover some of the alcohol. The alcohol is later reused.

The mixture is pumped to a filter press where the pigment is collected. Effluent generated from the process, consisting of alcohol and phosphoric acid, is pumped to a neutralization tank for treatment with caustic soda. After the pH is adjusted, the effluent is discharged into PVSC. Magenta pigments are made the same way except 2,5-di-p-toluidino-terephthalic acid or 2,5-di-(p-chloroanilino) telepathic acid is used as the starting material.

Originally, Sun Chemical was identified as a hazardous waste generator and TSD facility on their RCRA Part A application. TSD activities included storage in tanks (S02) and treatment in tanks (T01). In April of 1988, the Bureau of Hazardous Waste Engineering (BHWE) delisted the company's status to a generator only since waste were no longer stored on site for more than 90 days.

Sun is classified as a Industrial Waste Management Facility (IWMF) under the New Jersey Water Pollution Control Act, due to the on site neutralization of waste. Caustic soda is used to neutralize process effluent in two interconnected 1,500 gallon above ground storage tanks situated between Buildings #23 and #31. The treated effluent is discharged into a sump connected to an industrial sewer located on the adjacent property (Lot 4) owned by Norpak Corporation. Sun discharged its effluent into the strip drainage system located on the west side of the plant before the installation of the waste water treatment unit.

The Passaic Valley Sewerage Commission (PVSC) regulates the discharge under Permit #2040-1042 and requires the pH to be between 5.0 and 10.5. Sun is exempt from obtaining a NJPDES permit because it is considered an elementary neutralization unit. The facility qualifies as an elementary unit since the wastes neutralized are only considered hazardous due to the corrosivity characteristic.

Some of the company's hazardous waste is transported off site to Industrial Solvents in Pennsylvania. Industrial Solvents reclaims the solvent portion of the phosphoric acid and methanol/isopropanol mixture. This is sold back to Sun Chemical.

Sun Chemical Corporation entered an agreement for the sale of the Foundry Street facility with Sun/DIC Acquisition Corporation. In October, 1986, Recon Systems Inc. conducted sampling at the facility as part of a preliminary acquisition survey. Samples consisting of one soil, one sediment, and one swipe sample taken of an oily stain on the boiler room floor. The sediment and soil samples contained VOCs, PHCs, PCBs and priority pollutant metals. PCBs were detected in the swipe sample.

Consequently, both parties signed an ECRA Administrative Consent Order (ACO) on December 30, 1986. The ACO required Sun to install monitoring wells so that ground water quality could be investigated. Recon Systems Inc. collected ground water samples from three monitoring wells throughout the

facility on September 19 and November 10, 1989. The sample results indicated that ground water was contaminated with VOCs, B/Ns, PHCs and priority pollutant metals. The concentrations detected exceeded ECRA action levels. However, the contamination appeared to be coming from an off site source.

As a result of potential off site contamination, five additional monitoring wells were installed at Sun Chemical. Ground water samples were collected from the eight monitoring wells on August 23, 1990. These samples contained elevated levels of VOCs, B/Ns, PHCs and priority pollutant metals.

The DWR, Bureau of Ground Water Control recommended that additional background sampling be conducted to verify off site sources of contamination in March of 1990. Recon Systems Inc. in an attempt to verify such sources, investigated the integrity of the drainage system (strip drains) and sewer system. Video inspection of the sewer system revealed that the sewer lines contained numerous cracks and separations between the pipes. The inspection also noted that the strip drains were connected to the sewer system on Sun's property.

On July 17, 1990, four sediment samples and one water sample was collected from catch basins and the sewer system on the property. The samples contained elevated levels of VOCs, B/Ns, organic acids, cyanides, and priority pollutant metals. Recon Systems Inc. investigative findings concluded that contamination could have migrated onto the facility through the drainage system and leaks in the sewer system.

It was also indicated that reoccurring flooding of the drainage system may have distributed past sources of contamination throughout the facility, resulting in the scattered pattern noted on the premises. Furthermore, "ground water contamination appeared to be a regional problem not directly attributable to Sun Chemical".

FLEET AUTO ELECTRIC

The western portion of Lot 22 is occupied by Fleet Auto Electric and Automatic Electro-Plating Inc. (AEP). Fleet Auto Electric rebuilds electrical parts (i.e. generators, alternators for cars) in building #29 which is located immediately adjacent, and on the west side of Sun Chemical (See Attachment 2). The company has operated in the building since the early seventies.

AUTOMATIC ELECTRO-PLATING CORPORATION

Automatic Electro-Plating (AEP), EPA ID #NJD002445500 conducts an electroplating business in buildings #19, #21 and #22 (See Attachment 2). AEP has occupied these buildings since April, 1971. Tennant Chemical Company once operated in building #21 during the sixties.

The company performs nickel and zinc plating which incorporates two automated methods: RACK (metal parts suspended from racks), building #21, and BARREL (metal parts are placed in a polypropylene barrel) building #22. Both procedures are dipped in the various plating solutions and rinses. AEP

stores their dry chemicals in building #19. The yard south of building #19 is used to store acid carboys.

Several processes are done to prepare the metal parts for plating. The parts are first cleaned with an alkaline solution which is followed by a water rinse. Next, the parts are placed in a mild acid bath for surface activation and once again rinsed with water. From this process, the parts are submerged either in the zinc or nickel solution. The zinc solution consists of zinc chloride, potassium chloride and boric acid. The nickel solution consists of nickel sulfate, nickel chloride and boric acid. After the plating is completed, the parts are rinsed with water a final time and air dried.

Spent plating solutions are discharged from two outlets into the outside drains surrounding the production building. The drains flow to a sewer connection located near the northeast corner of building #21. Prior to discharge, the pH of the effluent is adjusted (neutralized) in house before it is released to the Passaic Valley Sewerage Commission (PVSC) which regulates the discharge under permit #2040-1122. Automatic Electro-Plating's permit is effective until July 14, 1991.

In January of 1986, AEP was determined to be in violation of Sections 307 and 308 of the Clean Water Act, 33 U.S.C. Subsection 1317, and Subsection 1318. A Civil Action Suit (86-0920) was filed by the United States Environmental Protection Agency, Region II. Gerald Borriello, President of AEP, signed a Consent Decree on April 15, 1987 for settlement of the pending actions. A $100,000 penalty was paid for the violation by Automatic Electro-Plating.

A prospective acquisition of AEP stock by Gerald F. Mahoney and Sennody Volkov in 1989, initiated the Environmental Cleanup Responsibility Act (ECRA) pursuant to N.J.A.C. 7:26-B-1.6 (stock purchase and redemption agreement of controlling share of assets of an industrial establishment). Subsequently, a General Information Submission and Site Evaluation Submission were filed with the Bureau of Environmental Evaluation Cleanup and Responsibility Assessment (BEECRA) on November 30, 1989 and January 10, 1990 respectively. Both submissions were determined to be incomplete by the Industrial Site Evaluation Element (ISE).

The Earth Technology Corporation, consultant to Automatic Electro-Plating, submitted a ECRA Negative Declaration on April 6, 1990, but it was found to be deficient. A revised declaration submitted on April 18, 1990 was waved due to enforcement actions on the adjacent property. No sampling was originally proposed for the facility. However, Mr. Borriello stated during a site inspection on November 7, 1990, that the Department (presumably ECRA) is requiring him to investigate contamination on site through sampling.

LOT 6 AND 10, BLOCK 5005

The south-southeast portion of the Foundry Street Complex consists of Lots 6 and 10 (Block 5005). Ashland Chemical Company acquired the property from Lasp Realty, Inc. in June, 1968. The two parcels are referred to as the "West Plant" and lie adjacent to Arkansas Chemical. It should be noted that the Ashland facility is divided in half by the New Jersey Turnpike. The

portion of the facility located on the east side of the turnpike is referred to as the "East Plant", and is not considered part of the Foundry Street Complex.

ASHLAND CHEMICAL COMPANY

Ashland Chemical Company, Industrial Chemical and Solvents Division (IC&S), EPA ID #NJD060803905, 221 Foundry Street, has operated on Lots 6 and 10 (Block 5005) since 1968. Ohmlac Paint and Refinishing Company once manufactured roofing felts and coatings on Lot 6. The company ceased operations on the property around 1961. Subsequently, the property was leased by Jo-Mar Trucking through the mid sixties. No other information is known about the operations of Ohmlac and Jo-Mar Trucking.

The IC&S Division received bulk shipments of aliphatic and aromatic hydrocarbons, acids, alcohols, alkines, amines, esters, ethers, glycols, halogenated solvents, ketones, and nitro paraffins by rail car and tank truck. Ashland transfers the product into a series of above ground tank farms throughout their property. The chemicals are repackaged into smaller bulk lots, such as bags, drums, and other containers, for distribution to their customers. No chemicals are manufactured on site, however, a few special blends (solvent mixtures) are processed. Ashland also generates waste oils, spill cleanup material and hose residue on site.

The West Plant contains loading/unloading areas for rail cars and tank trucks, a drumming warehouse (Building #19), and a tank farm (referred to as the 200 Series), see Attachment 3. Ashland's 200 Series tank farm consisted of 17 vertical above ground storage tanks. Product stored inside the tanks included: 140 solvent, cyclohexane, diemethyl formaldehyde, laktane, light oils, mineral spirits, plasticizers, toluene, and xylene (See Storage and Transfer Vessels of Volatile Organic Substances Maintained in File). The tanks were surrounded by a containment wall made of fire brick. It should be noted that the containment wall was reported to be structurally unsound by DWR personnel. The tank farm also contained a storage tank for No. 4 fuel oil.

Widespread contamination has been documented throughout the IC&S facility. The contamination is a by-product of routine site operations (i.e. storage, loading/unloading operations). On March 7, 1979, a spill of No. 4 fuel oil occurred in the 200 Series tank farm, but was contained within the diking. Approximately 18,000 gallons of waste solvents and fuel oil were removed. Subsequently, a ground water recovery system, consisting of three trenches was installed around the 200 Series tank farm.

Inspections conducted by Department personnel on two occasions, March 13 and 28, 1979, noted that the recovery system had been infiltrated with oil and solvents. Apparently, the contaminants were not attributed to the spill, since the dike area contained a water bottom which prevented most of the spill from entering into the ground.

Spillage and/or leakage was also documented throughout Ashland's IC&S facility by representatives of the NJDEP. Areas noted included: All tank farms, loading/unloading manifolds, pipe connections, sumps, and the storm sewer system were noted to contain product. Corrective measures were

discussed with Ashland's officials who stated that it would not be economically feasible for the company to implement all of the remedies required by the Department.

On May 20, 1980, DWR personnel collected water samples from two recovery sumps on site. High levels of benzene, toluene, trichloroethylene, ethyl benzene, m-xylene, p-xylene, and o-xylene were detected in the sample collected from the west sump, located adjacent to building #19. Similar volatile organic compounds were present in the east sump sample.

Ashland proposed a ten year construction schedule to upgrade the facility's Discharge, Prevention, Containment, Countermeasure Plan (DPCC). However, this plan was found unacceptable. A modified plan to be implemented over a five year period was subsequently proposed, but excluded the construction of impervious diking and the replacement of old tanks. By April of 1984, a number of corrective measures outlined in the DPCC plan had been implemented. However, spillage still existed on site in many of the areas not yet addressed.

Ashland's DPCC plan went through numerous revisions but a final plan had not been approved by the Department. In November of 1984, Ashland suggested the construction of a new facility. Consequently, this approach was initiated and triggered ECRA.

Ashland's consultant, M.T. Gates, Inc. conducted a preliminary site assessment on December 1 and 21, 1987. During the December 21 site visit, soil samples and surface water samples were collected from the IC&S West Plant. These samples contained halogenated and aromatic volatile organic compounds, ketones and petroleum distillates.

M.T. Gates initial ECRA Sampling Plan for the IC&S facility was found to be inadequate by the BEERA. A revised Sampling Plan was approved on November 18, 1988. Ten monitoring wells were installed throughout the west plant and sampling occurred on March 7, 1989. In addition to the ground water samples, eight soil borings were taken at depths ranging from 1.5 - 3.0 feet. Both ground water and soil samples contained halogenated VOCs, aromatic VOCs, ketones, metals, and petroleum distillates. The greatest percentage of the contaminants detected were in the aromatic VOC fraction.

A Hydrogeologic Environmental Assessment Conceptual Remedial Plan was submitted by M.T. Gates, Inc. in 1990. The plan called for a ground water interceptor trench to be installed six feet below the existing grade, on the north, east, and south perimeter of the IC&S facility. The interceptor trench would be connected to a series of collection sumps that would accumulate contaminated ground water. The contaminated ground water would then be pumped through a treatment system and discharged into either the PVSC or surface waters. Recently, a Supplemental Sampling Plan has been submitted for the pump and treatment system proposed by M.T. Gates. Upon approval of the Sampling Plan, Ashland will obtain the necessary permits for the systems. The treatment system is expected to be operational by the Spring of 1991.

LOT 4, BLOCK 5005

Kem Realty Company merged with D.S.C. of Newark, NJ Raw Materials Inc., Newark Glassine Bag Company, Norpak Corporation, Diamond Ink Company, A.A.C. Realty Company and Core Realty Corporation forming Torco Investing Corporation on April 30, 1976. Torco Investing Corporation conveyed Lot 4 (Block 5005) to Norpak Corporation on November 30, 1976. Subsequently, Norpak merged with Norpak Specialties Corporation, Leeds Enterprises, Inc., and Abar International Corporation forming a new corporation named A.A.C. Transitional Investment Corporation. On November 30, 1981, A.A.C. sold Lot 4 to Norpak Corporation.

While under the ownership of Kem Realty Company, Norpak Corporation, Torco Investing Corporation, and A.A.C. Transition Investment Corporation, buildings and space on the property were leased to a number of tenants which include: ABC Demolition Company (Building #15), Avon Drum Company (north side of property), Berg Chemical (Buildings #5 and #5A), CWC Industries, Inc. (Buildings #17 and #18, and #36), Comstock Foods (Buildings #38), Conus Chemical (Buildings #4 and #7), Coronet Chemical Company (Building #9), County Lift Truck Service (Building #14), Essex Chemical (Building #17), Grignard Chemical (Building #7), Honig Chemical (Building #7 and #13), Hummel Chemical (Building Unknown), Morrel Truck Service (Building #9), and RFE Industries (Building #1).

NOTE: See Attachment 2 for Building Locations.

C.W.C. Industries, Inc.

C.W.C. Industries, Inc. leased space in buildings #17, #18 and #36. The company manufacturers hot stamping foils (plastic ribbons). The operation involves the application of solvent based surface coatings to a polyester substrate (film). Upon completion of this process, the coated films are dried in an oven. Raw materials used in the coating formulations include isopropanol, methyl ethyl ketone, methanol, v, m & p napthalene, plasticizers, and toluene. These materials were stored outside in a yard adjacent to building #17 and #18. C.W.C. claims that it does not generate any waste on site. Any left over materials are recycled because disposal is too expensive.

The company possesses a NJDEP Air Permit #063295 which they received in May of 1983. C.W.C.'s surface coating is categorized as a paper coating operation in accordance with Table 3B of N.J.A.C. 7:27-16.5. Volatile organic substances (VOS) cannot exceed 2.9 pounds per gallon of coating, applied per hour, in the paper coating category. Two surface coating samples taken on November 10, 1988 exceeded VOS standards. Analysis of the coatings revealed that the coatings contained 5.33 and 6.53 pounds of VOS per gallon. Subsequently, an Administrative Order and Notice of Civil Administrative Penalty Assessment (AO/NCAPA) in the amount of $500 was issued to C.W.C. Industries. The penalty was paid and the company began to come into compliance by ordering new air pollution control apparatus. No other Department actions are known to have occurred at the facility. C.W.C. has since purchased the former Hummel Lanolin facility.

Conus Chemical

Conus Chemical Company, Inc. (aka Berg Chemical), a New York Corporation, conducted a chemical repackaging/distribution business in buildings #4, #5 and #7 which are situated on the western portion of Lot 4. In September of 1984, Conus purchased the assets of Berg Chemical Company which included accounts, equipment and chemical inventory. Berg Chemical had operated a similar business in the Bronx, New York. The New York City Department of Environmental Protection performed a publicly funded cleanup at the Bronx site in July, 1984. Various chemicals were found improperly stored at the facility.

Norpak Corporation and Conus were both issued Directives by the Division of Hazardous Waste Management on April 16, 1987. The Directive indicated that hazardous substances were improperly stored in building #7. Some of these drums had discharged their contents. Both companies were directed to repack leaking containers, segregate materials on site by hazard class and compatibility, and engage a qualified contractor to submit a cleanup plan. No actions were taken to correct the noted problems.

Numerous incidents have occurred at Conus Chemical Company which have required responses by the Newark Office of Emergency Management and NJDEP, Bureau of Emergency Response. In June of 1987, a drum of benzyl chloride was emitting hydrogen chloride vapor through a pinhole leak. The drum had been previously owned by Berg Chemical. The BER used Spill Fund monies to hire a contractor who neutralized and contained the fuming drum. Efforts made by the Department to contact Conus personnel were unsuccessful.

Conus Chemical was evicted from Norpak's property on December 31, 1989. An inspection conducted by the DHWM, Bureau of Metro Enforcement noted discharges of hazardous substances throughout the inside and outside of the facility. Conus and Norpak were subsequently cited for violations under the Spill Act. On January 31, 1990 a fire occurred in an outside debris pile near building #8. The USEPA inspected the Conus facility and found approximately 1,000 drums and containers with acids, flammables, laboratory reagents, oxidizers, petroleum products and solvents improperly stored.

On February 9, 1990 the NJDEP officially referred the site to the USEPA for a CERCLA Removal Action. Consequently, Norpak Corporation granted EPA access to the site for a cleanup. Remedial activities commenced on February 19, 1990. The objective of the project was to remove any threat of fire and explosion, and eliminate the threat of direct contact with hazardous substances abandoned on site. The cleanup was completed by March 30, 1990. Further remedial activities at the site are now pending. Berg Chemical Co. Inc. and Conus Chemical are investigating site contamination through ECRA.

Coronet Chemical Company, Inc.

Coronet Chemical Company, Inc., EPA ID #NJD046954715, manufactured metallic sodium dispersions and pigment concentrations used in the teflon industry. In addition, the company was developing a sodium dispersion to destroy PCBs. The company occupied building #9 located to the east of Conus

Chemical. Coronet Chemical stored some of their raw materials in building #4 which they subleased from Conus.

Coronet was originally registered as a hazardous waste generator and TSD facility on their initial RCRA Part A application submitted in August, 1980. Coronet reclaimed napthalene and ether from spent teflon etching solution through settling and distillation processes. First, the solution was vacuumed into a distillation columnar and transferred into a holding tank as diethyleneglycoldimethylether. Once the settling process was completed, the ether went into a drying column containing activated aluminum and subsequently into a drum for resale. Still bottoms produced from the process, consisting of naphthalene (solid), were placed in five gallon pails and heated in a cooker. The clean naphthalene recovered from this process was used to make sodium dispersions. Waste generated by Coronet's operations included spill cleanup material (approximately one drum per year); solids from the distillation column (1/2 pound per year); and spent activated alumina. Non contact cooling water was discharged into the Passaic Valley Sewerage Authority.

This reclamation service was originally used by Atlantic Tubing, Paterson, NJ and Chem Plast, Wayne, NJ. However only Chem Plast was utilizing the services of Coronet in 1982. Due to the lack of business, TSD status was never developed.

RCRA inspections conducted by the Department in 1981 and 1982 noted numerous deficiencies at the facility. During one such inspection, a leaking drum of napthalene was observed and waste materials had exceeded the 90 day storage limit for hazardous waste. Moreover, waste generated from the recovery process was disposed into a domestic dumpster on site. Other deficiencies reported as a result of the RCRA inspections included: No waste analyses, no closure plan, no operation records, no personnel training, and no manifests.

Coronet vacated the premises around 1986. The company abandoned drums containing flammable, reactive and explosive materials on site. In March of 1987, a drum containing metallic sodium caught fire and exploded.

Grignard Chemical Company, Inc.

Grignard Chemical Company, Inc., EPA ID #NJD002201093, occupied building #7 located on the west side of Lot 4. The company conducted operations at this location between 1975 and 1984 which included the manufacturing of chemical preparations such as metal preservatives and cleaners.

On August 18, 1980 Grignard Chemical filed a Notice of Hazardous Waste Activity and subsequently a RCRA Part A application on November 19, 1980. The company's president, Emil G. Grignard, requested to delist the TSD facility to generator only status on September 21, 1981. The request was approved on March 3, 1983, after the Department had issued a Notice of Violation (NOV) in November 1982. The NOV cited Grignard Chemical for failure to submit an annual report required of TSD facilities. No other enforcement actions are known to have been taken against Grignard.

FMG000129

Waste generated by Grignard Chemical are generally unknown. However, in a letter to the USEPA, Grignard stated that they use chlorinated hydrocarbons. Also a Department memo dated February 1, 1982 indicated that Grignard received a shipment of transformer oil containing 135 ppm polychlorinated biphenyls (PCBs). According to the Industrial Waste Survey, Grignard generated one 30 gallon drum of solid waste every three weeks.

DISCHARGE/ABANDONMENT INFORMATION:

Foundry Street Complex
141-189 Foundry Street and 96-144 Roanoke Avenue
City of Newark, Essex County
Block 5005, Lots 4, 5, 6, 10, 21 & 22

Current Owners:
Block 5005, Lot 4 (96-126 Roanoke Avenue)
Norpak Corporation
76 Blanchard Street
Newark, NJ 07105

Block 5005, Lot 5 (171-183 Foundry Street)
City of Newark
920 Broad Street
Newark, NJ 07102
(201) 733-3844

Block 5005, Lots 6 & 10 (185-189 Foundry Street)
Ashland Oil & Refining Company
PO Box 1400
Lexington, Kentucky 40512

Block 5005, Lot 21 (128-144 Roanoke Avenue)
C.W.C. Realty Company, Inc.
185 Foundry Street, Building #18
Newark, NJ 07105

Block 5005, Lot 22 (157-169 Foundry Street)
Foundry Street Corporation
185 Foundry Street
Newark, NJ 07105

SUBSTANCES DISCHARGED/ABANDONED:

The following contaminants were detected in sediment samples, soil samples, and surface water samples collected throughout the Foundry Street Complex by the Bureau of Planning and Assessment on October 14, 1988.

VOCs: Acetone, Benzene, 2-Butanone, Carbon Disulfide, Chlorobenzene, Chloroform, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloroethene, Ethylbenzene, Methylene Chloride, 4-Methyl-2-Pentanone, Tetrachloroethene, Toluene, 1,1,1-Trichloroethene, Vinyl Chloride

BNAs: Anthracene, Benzoic Acid, Benzo(a)Anthracene, Benzo(b) Fluoranthene, Benzo(k)Fluoranthene, Benzo (g,h,i) Perylene, Benzo(a)Pyrene, bis (2-Ethylhexyl) Phthalate, Butylbenzylphthalate, 4-Chloroaniline, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, Dibenzo(a,h)Anthracene, Di-n-Butylphthalate, Di-n-Octylphthalate, 2,4-Dichlorophenol, Fluoranthene, Fluorene, Indeno (1,2,3,-c,d) Pyrene, 2-Methylnaphalene, Naphalene, 2-Nitroaniline, Phenanthrene, Phenol, Pyrene, 1,2,4-Trichlorobenzene, 2,4,6-Trichlorophenol

PESTICIDES:

Aldrin, Dieldrin, 4,4'DDT, Arcolor 1248

METALS: Antimony, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Vanadium, Zinc, Cyanide

DESCRIPTION OF SITE CONTAMINATION:

LOT 21 (BLOCK 5005)

Hummel Lanolin Corporation removed a 6,000 gallon underground storage tank, used to store fuel oil from the southwest corner of Lot 21 in 1985. The location of this former tank was a major environmental concern of Hummel Lanolin. As a result of this concern, Dames & Moore, consultants for Hummel Lanolin, installed six soil borings in the area of the former tank. Soil samples were collected at six inches above the saturation zone (approximately 5.0 - 5.5 feet in depth) and six inches below the base of the tank (approximately 10.0 - 10.5 feet in depth). It should be noted that ground water was encountered at a depth of five and one half feet.

All twelve samples were found to have petroleum hydrocarbons ranging in concentrations from 16 ppm to 1,720 ppm. Three samples analyzed for base neutral compounds revealed the presence of bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, and napthalene. Other base neutral compounds were detected but could not be definitively identified. The two samples containing the highest concentrations of petroleum hydrocarbons were further analyzed to determine their constituents (fuel oil or wool grease). High concentrations of wool grease were detected in the sample taken from beneath the tank. The other sample, which was taken above the saturation zone revealed higher levels of fuel oil.

Six additional soil borings were made in the area of the former tank in March, 1987. The soil samples collected from these borings contained VOCs (i.e. benzene, toluene, 2-butanone, trichloroethane, 1,2-dichloropropane, xylene) semi volatiles (i.e. napthalene, fluoranthene, pyrene, chrysene, benzo(a)pyrene, phenanthrene), PHCs, and metals (i.e. cadmium, chromium, copper, lead, zinc).

Dames & Moore installed four monitoring wells (MW) in the vicinity of the former tank in July, 1987 to determine if ground water had been contaminated. During the installment of MW-1, a sludge like material with a septic odor, was encountered. On August 13, 1987, a soil boring was made approximately one foot from MW-1. The sludge material was not detected in the soil sample taken from the boring, however, a septic odor persisted. Contaminants detected in the sample included VOCs, B/Ns, pesticides and metals (arsenic, cadmium, lead and zinc).

A ground water sample was extracted from MW-2 on August 17, 1987. No significant levels (less than 1 ppm) of petroleum hydrocarbons and oil/grease were detected in the sample. It should be noted that no analysis for priority pollutants was performed on the sample. The presence of VOCs, B/Ns, and metals in soil samples would suggest possible leaching of these contaminants into the underlying ground water.

To further delineate the source of the sludge material, a sediment sample was collected from the base of a manhole located 60 feet from the facility on the southern portion of the property. The sediment sample contained VOCs, PHCs, and metals. These are the same types of contaminants present in the soil sample taken from the boring next to MW-1.

A composite soil sample was obtained from beneath a floor drain in the process building located near the area where the sludge material was discovered outside. The sample was taken at a depth of 20.5 - 26.3 inches and 26.1 - 32.5 inches. The sample contained VOCs, B/Ns, and metals below ECRA action level. The floor drains were determined not to be a source of the sludge through the concentrations detected in the soil sample.

In October, 1988, Dames & Moore collected a sediment sample (WC-1) and water sample (WC-2) from the drainage basin situated on the north side of the process building. The sediment sample contained methylene chloride (11,000 ppb), toluene (6,100 ppb), five B/Ns below method detection limits, and metals (i.e. cadmium, copper at 1,096 ppm, lead at 1,044 ppm, selenium, zinc at 3,746 ppm). The water sample contained low levels of cadmium and lead. However, both samples had elevated levels of total petroleum hydrocarbons.

LOT 22 (BLOCK 5005)

A preliminary ECRA investigation was performed at the Sun Chemical facility by Recon Systems, Inc. on October 14, 1986. Three (3) samples consisting of one soil sample from an unpaved area adjacent to a solid waste dumpster, one sediment sample from a drain located in the drive way south and adjacent to Sun, and one swipe sample of a oily substance on a boiler room floor were taken during the sampling episode.

The soil and sediment samples exceeded the Bureau of Industrial Site Evaluation cleanup levels for base neutral compounds and petroleum hydrocarbons. Base neutral compounds detected included napthalene, 2-methylnapthalene, di-n-butyl phthalate, bis (2-ethylhexyl) phthalate and unknown brominated compounds. Metals (i.e. antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) were also present in both samples. PCBs were detected in the soil and swipe sample.

In August, 1989, three monitoring wells were installed at Sun Chemical to examine ground water quality. Two of the three wells (MW-1, MW-3) were placed on the west and north side of the facility respectively. While MW-2 was placed to the south of the facility. Ground water was determined to flow in a southeast direction and was reported to be influenced by tidal action.

Ground water samples were collected from the monitoring wells on September 19 and November 10, 1989. The samples from all three wells exceeded ECRA action levels for total B/Ns and VOCs. However, levels detected in MW-2 were lower than those levels detected in the other two monitoring wells (MW-1, MW-3). In addition MW-3 also exceeded action levels for PHCs, PCBs, and metals (i.e. arsenic, cadmium, lead, mercury, zinc).

Recon Systems, Inc. collected four (4) sediment samples and one water sample from Sun's sewer system on July 17, 1990. Sediment sample #1 was collected from the drainage system (strip drain) located in the driveway separating Sun and Arkansas Chemical where a second drain from Arkansas property connects into the first drain. The sample contained elevated levels for volatile organic compounds (VOC), base neutral compounds (B/N), organic acids, cyanide, phenol and priority pollutant metals (i.e. lead, mercury).

Sediment sample #2 was collected from a catch basin located in the driveway separating Sun and Automatic Electro-Plating to the west. The catch basin is situated where an underground sewer line from Automatic Electro-Plating connects into the sewer system. This sample contained elevated levels of VOCs, unknown semi volatile compounds, cyanide (45 ppm) and priority pollutant metals (i.e. cadmium, chromium, copper, lead, nickel (4,270 ppm), zinc (4,140 ppm).

Sediment sample #3 was obtained from the underground sewer system where a strip drain located in the driveway on the north side of Automatic Electro-Plating connects with the underground sewer line. The sample contained PCBs (100 ppm), VOCs, B/N, organic acids, unknown semi volatiles, cyanide, phenol and priority pollutant metals (i.e. antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc). Overall, sediment sample #3 had the highest concentration of metals detected in all of the samples analyzed.

Monitoring wells MW-1 and MW-3 contained high levels of contamination. It was suspected that the contamination detected in the wells may be coming from an off site source. Recon Systems, Inc., consultants for Sun Chemical, installed five additional MWs in June and August, 1990. Two of the wells (MW-4, MW-5) were installed along the northern property line. MW-6 was installed along the western property line adjacent to Automatic Electro Plating. MW-7 was installed on the south side of the facility. Ground water was determined to flow onto Sun Chemical from the south. Sampling of the wells occurred on August 23, 1990. Ground water samples contained VOCs, B/N, and priority pollutant metals.

LOTS 4, 5, 21, 22 (BLOCK 5005)

Bureau of Planning and Assessment (BPA) personnel conducted a presampling site inspection (SI) at the Foundry Street Complex on October 7, 1988. Air monitoring and soil gas readings were limited to Lots 4, 5, 21 and 22. Soil gas readings ranged in concentrations from 0.6 ppm - 600 ppm (as benzene) and 10 ppm - 1,000 ppm (as methane) with the HNU and OVA respectively. Ambient air levels ranged from 1-10 ppm.

Information obtained from the SI indicated that further investigation was warranted. Eighteen soil samples, five sediment samples, four surface water samples, and two ground water samples were collected during the sampling episode on October 14, 1988 (See Attachment 2 for Sampling Locations). High concentrations of volatile organic compounds, base neutral compounds, PCBs, and metals were present in the soil, sediment, surface water and ground water samples. The most commonly detected contaminants included: Trichloroethane, benzene, chlorobenzene, toluene, xylene, tetrachlorobenzene, naphthalene, pyrene, di-n-butyl phthalate, bis (2-ethylhexyl) phthalate, butyl benzyl phthalate, aroclor 1248, arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.

LOTS 6 & 10 (BLOCK 5005)

Ashland Chemicals ECRA consultant, T.M. Gates Inc. collected two surface water and three soil samples from Lot 10 in December of 1987. The samples were taken during a preliminary site assessment. Both surface water samples

contained 1,1,1-trichloroethane. The soil samples revealed several additional volatile organic compounds that included: 1,1-dichloroethane, 1,1-dichloroethene, xylene, 4-methyl-2-pentanone, and mineral spirits.

Based on the preliminary data, ten monitoring wells (MW) and eight soil borings (SB) were constructed on Lots 6 and 10. Three of the monitoring wells (MW-1, MW-2 and MW-3) were installed along the northern boundary of Lot 6, which is adjacent to Arkansas Chemical. These wells were intended to provide upgradient ground water quality data. Ground water samples from the three monitoring wells contained a variable pH, elevated concentrations of metals (i.e. arsenic, cadmium, chromium, copper, leads, nickel and zinc), and volatile organic compounds. MW-3 had the highest concentrations of metals.

The greatest occurrence of ground water contamination was detected in the central portion of Lots 6 and 10 in MW-5 and MW-6. Both wells were located in the vicinity of the 200 Series tank farm which has a history of spills and ground water contamination. Monitoring wells (i.e. MW-7, MW-8, MW-9 and MW-10) located hydraulically downgradient of the other wells contained low levels of volatile organic compounds. A general breakdown of the chemical groups detected in the ground water samples were halogenated VOCs (3%), aromatic VOCs (93%), ketones (4%), and petroleum distillates (trace).

FMG000136

RESPONSIBLE PARTY:

Ashland Chemical Division (Duns #06-080-3905)
221 Foundry Street
Newark, NJ 07105-4211
(201) 287-3344

Block 5005, Lot 6 & 10

Registered Agent:
Corporation Trust Company
28 West State Street
Trenton, NJ 08608

Corporate Status:
Active; SIC 5169; Chemicals and Allied Products, NEC
Headquarter Duns: #00-500-3264
Ashland Oil, Inc,
1000 Ashland Drive
PO Box 391
Russell, KY 41169

Financial Status:
Sales $8,536,314,000 latest year 1989 (Dun & Bradstreet)

Principals:
Chairman - Hall, John R.
President - Luellen, Charles J.
Vice President - Lacy, James D.
Vice President - Stephenson, James J.
Vice President - Zachem, Harry M.
Vice President - Adm. Cont., Denton, Kenneth B.
Vice President - General Counsel, Crimmins, Sean T.
Vice President - Adm. General Counsel, Feazell, Thomas L.
Vice President - Administration, Perrine, William E.
Vice President - Block, Philip W.
Vice President - Danaby, John W.
Vice President - Justice, Franklin P. Jr.
Secretary - Ward, John P.
Treasurer - Quin, J.M.
Senior Vice President - Brothers, John A.
Senior Vice President - D'Antoni, David J.
Senior Vice President - Jones, G.W.
Senior Vice President - Pettus, John F.
Senior Vice President - Spears, Richard W.
Senior Vice President - Yancey, Robert E. Jr.
Senior Vice President - Boyd, James R.
Senior Vice President - Barr, John D.
Senior Vice President, CFO- Chellgren, Paul W.
Chairman of the Board - Hall, John R.
Auditor - Wallace, John H. Jr.
President, CFO - Luellen, Charles J.
Senior Vice President, CFO - Chellgren Paul W.
Vice President, General Counsel - Crimmins, Sean T.

RESPONSIBLE PARTY:

Automatic Electro-Plating Corporation (Duns #00-244-5500)
185 Foundry Street
Newark, NJ 07105-4208
(201) 589-0344

Block 5005, Lot 22

Registered Agent:
J.J. Longley
426 Springfield Avenue
Summit, NJ 07901

Corporate Status:
Active; SIC 3471; Electro-Plating

Financial Status:
Sales $1,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Borriello, Gerald
260 Knoll Drive
Block: 2505 Lot: 7 (Park Ridge Borough, Bergen County)

Assessment:

$136,900	Land
$221,400	Improvements
$358,300	Total Assessment

RESPONSIBLE PARTY:

Avon Drum Corporation (Duns #07-515-4948)
955 South Springfield Avenue
Unit 604
Springfield, NJ 07081-3520
(201) 379-3520

Registered Agent:
Bruce R. Sandles
21 Avon Road
Springfield, NJ 07081

Corporate Status:
Active; SIC 5085; Wholesale New & Reconditioned Drums

Financial Status:
Sales $530,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Nelkin, Merwin
Secretary - Nelkin, Elaine
Treasurer - Nelkin, Elaine

955 South Springfield Avenue
Block 143; Lot 2.02 C0604 (Springfield Township, Union County)

Assessment:

$ 45,000	Land
$116,100	Improvements
$161,100	Total Assessment

RESPONSIBLE PARTY:

Arkansas Company, Inc.
185 Foundry Street
Newark, NJ 07105-4208
(212) 861-0521

Registered Agent:
George B. Reitz
185 Foundry Street
Newark, NJ 07105

Corporate Status:
Active

Financial Status:
Unknown

Principals:
CEO - Von Sternberg, Dorothy B.
President - Von Stern, Mark R.
Plant Manager - Cufasso, Joseph
Production Manager - Stump, Richard

RESPONSIBLE PARTY:

CWC Industries, Inc. (Duns #06-751-3994)
185 Foundry Street
Newark, NJ 07105-4208
(201) 344-1434

Block 5005, Lot 4

Registered Agent:
William J. Bate
970 Clifton Avenue
Clifton, NJ 07013

Corporate Status:
Active; SIC 3953; Manufacture hot sampling foils

Financial Status:
Sales $1,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Chan, Peter

128-144 Roanoke Avenue
Block 5005; Lot 21 (Newark, Essex County)

Assessment:

$ 20,500	Land
$128,400	Improvements
$148,900	Total Assessment

RESPONSIBLE PARTY:

Conus Chemical (Duns #11-886-8975)
185 Foundry Street
Newark, NJ 07105-4208
(201) 589-8806
Block 5005, Lot 4

Corporate Status:
Active; SIC 5169; Wholesale industrial chemicals

Financial Status:
Sales $1,300,000 Latest Year 1989 (Dun & Bradstreet)

Principals:
Owner - Richards, James

RESPONSIBLE PARTY:

County Lift Truck Service Inc. (Duns #06-155-7526)
81 Charles Street
P.O. Box 7816
Jersey City, NJ 07307-3537

Registered Agent:
John Curtin
81 Charles Street
Jersey City, NJ 07307

Corporate Status:
Active; SIC 7699; Services & Rents Forklifts

Financial Status:
Sales $200,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Curtin, John
Secretary - Curtin, Barbara
Treasurer - Curtin, Barbara

RESPONSIBLE PARTY:

Foundry Street Corporation
185 Foundry Street
Newark, NJ 07105
Block 5005, Lot 22

Registered Agent:
J.J. Longley
426 Springfield Avenue
Summit, NJ 07901

Corporate Status:
Changed

Financial Status:
Unknown

Principals:
Unknown

157-169 Foundry Street
Block 5005, Lot 22

Assessment:

$ 41,300	Land
$ 82,100	Improvements
$123,400	Total Assessment

FMG000144

946020157

RESPONSIBLE PARTY:

Morrel Truck Service
185 Foundry Street
Building #9
Newark, NJ 07105

Block 5005, Lot 4

Corporate Status:
Unknown

Financial Status:
Unknown

Principals:
Unknown

RESPONSIBLE PARTY:

Newark City
920 Broad Street
Newark, NJ 07102
(201) 733-6400

Block 5005, Lot 5

Financial Status:

Total Revenues 1987	$395,345,689.05
Property Tax	120,436,862.59
State Aid	48,896,786.60
Federal Aid	9,388,605.00

Principals:
Mayor-James, Sharpe
185 Foundry Street
Block 5005, Lot 5 (Newark Essex County)

Assessment:
$ 43,000 Land
$191,400 Improvements
$234,400 Total Assessment

RESPONSIBLE PARTY:

Norpak Corporation
70 Blanchard Street
Newark, NJ 07105
(201) 589-4200

Corporate Status:
Active; SIC 2672 & 3497; Waxed paper and laminated foil wrappers

Financial Status:
Sales $10,000,000 - $20,000,000 (NJ Directory of Manufactures 1990-91)

Principals:
President - Coraci, Anthony A.
Vice President - Godown, Robert
Treasurer/Secretary - Coraci, V.J.
Production Manager - Cartem, Art
Sale Manager - Pacyna, Michael
Purchasing Agent - Rebol, Louis

96-126 Roanoke Avenue
Block 5005, Lot 4 (Newark, Essex County)
Assessment:

$ 82,000	Land
69,600	Improvements
$151,600	Total Assessment

RESPONSIBLE PARTY:

Torco Investing (Trinet #007648611)
70 Blanchard Street
Newark, NJ 07105-4702
(201) 589-4200

Corporate Status:
Active; SIC 2671; Coated & Laminated Paper Packaging

Financial Status:
Estimated Total Sales $23,100,000 (Trinet)

Principals:
Unknown

RESPONSIBLE PARTY:

RFE Industries Inc. (Duns #05-509-0815)
19 Crows Mills Road
Keasbey, NJ 08832-1004
(201) 738-5200

Registered Agent:
Bruce H. Nagel
744 Broad Street
Newark, NJ 07102

Corporate Status:
Active; SIC 3356; Nonferrous rolling and drawling, NEC, solder: wire bar, acid core and rosin core

Financial Status:
Sales $36,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Leiner, Jack
Secretary - Leiner, Maxine
Treasurer - Leiner, Maxine

POTENTIAL RESPONSIBLE PARTY:

Essex Chemical Corporation (Duns #00-215-3898)
351 Doremus Avenue
Newark, NJ 07105-4805
(201) 589-5300

Corporate Status:
Active; SIC 2819; Industrial Inorganic Chemicals
Headquarter Duns #00-138-1581 the Dow Chemical Company, Inc.

Financial Status:
Sales $17,600,000,000 latest date 3/26/90 (Dun & Bradstreet)

Principals:
Branch Manager - Prudente, Pat

POTENTIAL RESPONSIBLE PARTY:

Fleet Auto Electric Company, Inc. (Duns #05-126-8225)
185 Foundry Street
Newark, NJ 07105-4208

Block 5005, Lot 22

Registered Agent:
Mark A. Gettelson, Esq.
303 George Street
New Brunswick, NJ 08901

Corporate Status:
Active; SIC 7539; rebuilds and services electric systems of trucks

Financial Status:
Sales $96,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Levy, Howard
Secretary - Levy, Howard
Treasurer - Levy, Howard

POTENTIAL RESPONSIBLE PARTY:

Honig Chemical & Processing Corporation (Duns #05-509-0161)
414 Wilson Avenue
Newark, NJ 07105-4203
(201) 344-0881

Registered Agent:
Robert Honig
414 Wilon Avenue
Newark, NJ 07105

Corporate Status:
Active; SIC 2869; manufacture organic chemicals

Financial Status:
Sales $2,200,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Honig, Robert
Secretary - Honig, Heloise

POTENTIAL RESPONSIBLE PARTY:

Grignard Company, Inc. (Duns #00-220-1093)
60 Grant Avenue
PO Box 523
Carteret, NJ 07008-2720
(201) 541-6661

Corporate Status:
Active; SIC 2992; Manufacture specialty synthetic lubricants, oils and greases

Financial Status:
Sales $900,000 Latest Year 1989 (Dun & Bradstreet)

Principals:
President - Grignard, Emile E.
Secretary - Grignard, Patricia

POTENTIAL RESPONSIBLE PARTY:

Hummel Croton Inc. (Duns #06-072-2154)
10 Harmich Road
South Plainfield, NJ 07080-4804
(201) 754-1800

Registered Agent:
B.F. Schoen Sr.
10 Harmich Road
South Plainfield, NJ 07080

Corporate Status:
Active; SIC 2819; industrial inorganic chemicals, NEC; barium compounds

Financial Status:
Sales $4,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Schoen, Bernard E.
Vice President - Dugan, Mark
Vice President - Schoen, Bernard Jr.

POTENTIAL RESPONSIBLE PARTY:

Reichhold Chemicals, Inc. (Duns #10-865-0862)
Cellomar Division
46 Albert Avenue
Newark, NJ 07105-4523
(201) 589-3875

Registered Agent:
Corporation Trust Company
28 West State Street
Trenton, NJ 08608

Corporate Status:
Active; SIC 5169; wholesale chemicals, chemicals and allied products
Headquarter Duns: #00-122-0904
Reichold Chemicals, Inc.
525 North Broadway
White Plains, NY 10603-3216
Corporate Family Duns: #05-452-7502
DIC Americas, Inc.

Financial Status:
Sales $850,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Mitchell, Thomas R.
Vice President-Controller - Owen, William H.
Vice President-Human Resources - Fisher, Richard W.
Secretary & General Counsel - Lorelli, Charles A.
Chief Executive Officer - Mitchell, Thomas R.
Vice President-Finance - Owen, William H.

CONCLUSIONS AND RECOMMENDATIONS:

Historically operations at the Foundry Street Complex have contributed to contamination through the handling of hazardous substances and contributory operations. Ellis R. Meeker's book entitled "New Jersey, A Historical, Commercial and Industrial Review", Commonwealth Publishing Company, 1906, indicates that Central Dyestuff and Chemical Company manufactured tar colors at their extensive plant at Plum Point Lane. This is substantiated by information obtained through a title and deed search. Part of the property making up the Foundry Street Complex was formerly known as Plum Point Lane.

According to the Encyclopedia of Chemical Technology products recovered from the fractional distillation of coal tar have been the traditional raw materials for the dye industry. Among the most important are benzene, toluene, xylene, naphthalene, anthracene, acenaphthene, pyrene, pyridine, carbozal, phenol and cresol. The reference further states that dye companies expanded their activities into the pharmaceutical field. Pharmaceuticals such as sulfa drugs were derived from compounds already in use as dye intermediates.

H.A. Metz & Company, Inc., successors to Consolidated Color and Chemical Company by virtue of name change, was identified to have once manufactured drugs at the Foundry Street Complex. This information was obtained from the Industrial Directory of New Jersey (1931) and Sanborn Fire Insurance Maps.

Hummel Lanolin Corporation and Sun Chemical Company have investigated their facilities located within the Foundry Street Complex for potential sources of contamination pursuant to the Environmental Cleanup Responsibility Act (ECRA). Extensive files are maintained relative to these activities with ECRA.

NOTE: ECRA File Numbers are Provided on Page 50

Ground water samples taken from eight monitoring wells installed throughout the Sun Chemical facility contained elevated levels of volatile organic compounds (VOCs), base neutral compounds (B/Ns), petroleum hydrocarbons (PHCs) and priority pollutant metals. Recon Systems Inc. determined that the flow of ground water in the vicinity of the facility is from the south in a radial direction. Arkansas Chemical and Ashland Chemical Company's Industrial Chemical and Solvents Division are situated upgradient of Sun Chemical.

Widespread contamination has been documented throughout the "West Plant" of Ashland's Industrial Chemical and Solvent Division. The west plant lies approximately 300 feet south of Sun Chemical. Contamination on this property has resulted from numerous spills, leaks, and poor house keeping practices associated with the 200 Series tank farm, drumming warehouse, and truck and rail car loading/unloading manifolds. The 200 Series tank farm was used to store products such as mineral spirits, napthalene, plasticizer, fuel oil, toluene and xylene. In addition, halogenated VOCs (i.e. 1,1-dichloroethane, 1,1,-trichloroethane, tetrachloroethane), aromatic VOCs (i.e. benzene, toluene, xylene) and petroleum distillates have been detected in ground water and soil samples collected from the West Plant. The highest

concentrations have been detected in the area of the former 200 Series tank farm. It should be noted that most of the West Plant is not paved.

Arkansas Chemical Company occupied the adjoining property to the south of Sun for approximately 47 years. It should be noted that Arkansas vacated the premises in 1984. The two companies are separated by a narrow driveway. Numerous storage tanks were maintained in the rear south-southwest corner of the property (Lot 5), adjacent to building #28. Arkansas used these tanks to store fuel oil, sulfuric acid, caustic soda, mineral oil, naptha and other products. In 1981, a NJDEP, Division of Hazard Management representative noted weep holes in a caustic tank. Spillage stained the ground below the tank and other tanks in the area.

In October, 1988, two soil samples were taken from the southwest corner of the facility behind the former tank house. Both samples were obtained from the same boring. The shallow sample (S-2) contained high concentrations of VOCs (i.e. xylene, toluene, tetrachloroethylene, chlorobenzene, ethylbenzene) and semi volatiles (i.e. napthalene, 2-methylnapthalene). Only tetrachloroethylene was present in the deep sample (S-3). This suggests that the contamination is the result of surface spillage which has not deeply penetrated into the ground. Spillage from petroleum products was observed on the ground in the rear (west side) of the property during an inspection in 1984. In addition naptha was stored in a tank near the sample location. Napthalene and 2-methylnapthalene were detected in the shallow soil sample. Spillage or leakage from the tank could have migrated from the tank to this area.

It should be noted that the drainage system throughout the Foundry Street Complex is a major source of contamination. Sediment and surface water samples collected from the drainage system in October, 1988, contained high concentrations of VOCs, B/Ns, PHCs, PCBs and priority pollutant metals. The drainage system essentially consists of troughs embedded in the driveways which are connected to sewerlines. A site inspection conducted at the Foundry Street Complex on November 7, 1990, revealed that many sections of the drains had collapsed or were broken. Water observed in the drains had a petroleum sheen on its surface and a heavy residue existed on the bottom. It was also reported that the drains would frequently flood during periods of rain. Any contamination in the drains could be redistributed over other areas covered by the flood waters.

The drainage system connects to sewerlines located on the south side and to the northwest of Sun Chemical. The sewerline on the south side, transverses underneath the Sun facility. Both sewerlines are connected to an industrial sewerline on Norpak's property to the north. The industrial sewerline is connected to a city sewer on Roanoke Avenue. Four sediment samples were collected from the drainage system and sewerlines surrounding Sun Chemical on July 17, 1990. These samples contained elevated levels of VOCs, B/Ns, organic acids, unknown semi volatiles, and priority pollutant metals.

Recon Systems, Inc. video inspection of the sewerlines on the premises of Sun Chemical revealed numerous cracks and separations between the pipes. Any contamination entering the sewerline could escape through these openings into the surrounding soil.

Drains from Arkansas Chemical were discovered to flow directly from Building #26, #27 and #28 (See Attachment 4). The drains are connected to the drainage system in the driveway on the north side of the facility. Herman G. Wieland, Chief Chemist of Arkansas, stated in a Sewer Connection Application dated October 27, 1980 that the plant's effluent is neutralized in an outside tank and discharged into "city storm sewers via covered ditches". Waste water samples taken from Arkansas Chemical in October, 1981 contained trace concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc. Mercury was detected in effluent samples taken in June and July, 1981. These contaminants have been detected in sediment samples taken from the drains throughout the Foundry Street Complex.

Division of Hazard Management personnel noted in 1981, that spillage from the process building (#28) could flow unobstructed into strip drains outside. It was also indicated that drains located in the shipping building (#27) flowed directly off the premises. In December, 1986, NJDEP personnel observed powder and resin on the floors of the process building. In addition, numerous fiber drums and lines on reactor/process vessels were leaking their contents. The roof was also noted to be leaking which could wash spillage into floor drains that flowed into the drainage system. Many of the products removed from Arkansas Chemical by the EPA were base neutral compounds, acids, cyanides, peroxides, flammables, halogenated organics, oxidizers and organics.

Automatic Electro-Plating Corporation (AEP) has operated an electroplating business on the western portion of Lot 22, adjacent to Sun Chemical, since 1972. The drainage system borders the facility on its north, west and south side, and receives point source discharge and surface water run-off from AEP. A sewerline on the east side is connected to a sanitary source at the facility. Elevated levels of VOCs and priority pollutant metals were detected in a sediment sample (Sediment #2) taken from a catch basin where the two sewerlines connect in July, 1990.

A flow diagram submitted by AEP to the Passaic Valley Sewerage Commission in January, 1989 shows process lines from buildings #21 and #22 discharge into the drain on the north side. High concentrations of arsenic, cadmium, chromium, copper, lead, mercury, silver and zinc were detected in a surface water sample (SW-4) taken from this drain on October 14, 1988.

This drain and the noted sewerline connect to one another at a catch basin situated near the corner of building #21. Elevated levels of VOCs, B/Ns, PCBs, organic acids, unknown semi volatile compounds and priority pollutant metals (i.e. cadmium, chromium, copper, lead, nickel, zinc) were detected in a sediment sample (Sediment #3) collected from this catch basin in July, 1990.

In January, 1989 Gerald Borriello, President of AEP, informed the Passaic Valley Sewerage Commission that his company does not discharge any cadmium, lead, silver or cyanide into the sewage system. Automatic Electro-Plating's ECRA General Information Submission (GIS) states that only nickel and zinc plating are conducted on site. These metals have been detected in sediment samples collected from the drainage system.

According to the Division of Environmental Quality (DEQ) Right to Know Survey dated November 10, 1988, Automatic Electro-Plating Corporation used materials containing chromium, copper, nickel, silver, zinc and cyanide. The GIS indicated that dry chemicals are stored in building #19. Samples SW-3 and SED-4 were obtained from the drain located on the west side of buildings #21 and #22, and adjacent to the chemical storage area on October 14, 1988. High concentrations of metals detected in these two samples suggest that run-off may be transporting spilled materials from the storage area into the drain.

Records obtained from the PVSC revealed that AEP once conducted chrome electro-plating (see file copy of AEP General Information Sewer Connection Application, 1980). An effluent sample taken on December 12, 1979, during "usual electro-plating" operations contained arsenic, cadmium, chromium, copper, lead, nickel and zinc.

In 1982, AEP informed the DWR that they are experimenting with nontoxic products such as cyanide free plating solutions, and chromium free passivities to reduce the discharge of chromium. Subsequently, AEP consistently failed to meet electro-plating discharge standards which initiated enforcement actions by the USEPA in 1986.

Another potential source of contamination may have originated from the Polychrome Corporation, Cellomer Division. Sun Chemical stated in their General Information Submission that Cellomer occupied the premises before 1967. Cellomer's address is listed as 185 Foundry Street in New Jersey Industrial Directories from 1964 through 1966. There is no information concerning the company's activities at the Foundry Street Complex.

In subsequent directories, the address was listed as 46 Albert Street, Newark. Cellomer manufactures alkyd resins at this location. Some products used include vegetable oils, polyols, phthalic anhydride, aliphatic and aromatic solvents. The company submitted to the PVSC a base line monitoring report (BMR) for process water samples taken during normal operations in June, 1988. The samples contained detectable levels of benzene, benzoic acid, methylene chloride, toluene, xylene, bis (2-ethylhexyl) phthalate, and di-n-butyl phthalate. These substances have been detected in soil and sediment samples taken from Sun Chemical.

In 1989, O'Brien & Gere Engineering, Inc. was retained to address compliance with waste water discharge regulations. A compliance monitoring report indicated that Cellomers regulated waste stream exceeded maximum concentration limits for toluene, ethylbenzene, and phenol. In addition, toluene and bis (2 ethylhexyl) phthalate were detected in the plant's effluent. O'Brien & Gere concluded that the company was not consistently complying with standards for phenol, bis (2 ethylhexyl) phthalate, ethyl benzene and toluene. These substances have been detected in ground water, surface water and sediment samples collected from the drains around Sun Chemical and Automatic Electro-Plating. Neither Sun Chemical or Automatic Electro-Plating are known to utilize these substances, therefore Polychrome's operation at Foundry Street are a likely source of this contamination. Polychrome's Cellomer Division name was changed to Reichhold Chemical Inc. in 1989.

Avon Drum Corporation has operated a drum brokerage on the northern portion of Lot 4, adjacent to Roanoke Avenue and west of the former Hummel Lanolin facility for approximately 20 years. Historical aerial photographs (EPI-IRC-6571, 6572, 6573) taken on September 6, 1978, revealed extensive drum storage along Roanoke Avenue where Avon Drum operates. The area appeared to be heavily stained.

High concentrations of VOCs (i.e. xylene, tetrachloroethene, toluene, ethylbenzene), semi volatiles (i.e. phenanthrene, di-n-butyl phthalate, fluoranthene, pyrene, benzo(a)anthracene), PCBs, and priority pollutant metals were detected in soil samples (S-12, S-13, S-14) collected from the facility on October 14, 1988. Two soil samples (S-10, S-11) taken at the perimeter of the facility contained significantly fewer contaminants at lower concentrations. This implies that contamination is directly associated with site operations (i.e. drum storage). Representatives from the Bureau of Compliance and Technical Services observed spillage throughout the facility on November 7, 1990. During this inspection, a solvent odor was encountered. Two operators at the Foundry Street Complex also stated that the company washes drums out on the premises. Consequently any remaining residues in the drums would be allowed to discharge onto the ground. There is no protective barrier (i.e. concrete, asphalt) at the facility.

Berg Chemical Co. and Conus Chemical conducted a chemical repackaging and distribution operation in buildings #5, #5A and #7 located on the west side of Lot 4 adjacent to the railroad tracks. Products handled at the facility included acids, alcohols, solvents, petroleum products, corrosives, reactives and flammables. A large inventory of these products were stored inside and outside of the buildings. The outside storage area lacked adequate spill prevention structures to prevent spillage from seeping into the ground. High levels of chloroform, 1,2-dichloroethene, trichloroethylene, tetrachloroethylene, 2-methylnapthalene, benzoic acid, phenthane, di-n-butyl phthalate, pyrene and butyl benzyl phthalate were detected in a soil sample (S-9) collected near the drum storage area on October 14, 1988.

An EPA inventory taken from drums located in the outside storage area included trichloroethylene, chloroethylene, naptha distillate, benzyl chloride, toluene and petroleum ether. Some of these substances were detected in the soil sample. In February, 1990 NJDEP, DHWM personnel reported that various spills of hazardous substances existed outside of the facility. It was also noted that soils were stained along the western portion (exterior) of Conus.

NJDEP representatives observed spillage throughout the inside of building #5 during a presampling site inspection in October, 1988. Conus stored a variety of hazardous substances in 55 gallon drums, fiber drums, fiber bags, small containers and above ground storage tanks. Spillage was also observed inside on subsequent inspections. Floor drains in building #5 were determined to curve towards the east side of the facility. This suggests that the drains may be connected to the drainage system location in the driveway outside. Any spillage resulting from repackaging could flow or be washed into the floor drains.

High concentrations of VOC (i.e. methylene chloride, 1,1-dichloroethene, 1,2 dichloroethene, 1,2 dichloroethane, 2-butanone, 1,1,1-trichloroethene, xylene, trichloroethylene, benzene, tetrachloroethylene, toluene, chlorobenzene), semi volatile (i.e. 1,2-dichlorobenzene, napthalene, 2-methylnapthalene, phenanthrene, fluorene, flouranthene, pyrene, butylbenzyl phthalate, bis (2-ethylhexyl) phthalate) pesticides, PCBs and priority pollutant metals were detected in a sediment sample collected from the drain situated between Conus (Building #5) and RFE Industries (Building #1) on October 14, 1988.

An inventory of hazardous materials found in building #5 included: Petroleum product residue, naptha sillate, kerosene, mineral spirits, n-butyl lactate, dry cleaning solution to name a few. Other potential sources of contamination detected on the west-northwest side of Lot 4 may have originated from operations conducted by Coronet Chemical Co., Grignard Chemical Co. Inc., Honig Chemical and Processing Co., Hummel Chemical, RFE Industries, Morrel Truck Services, and County Lift Truck Service.

Grignard Chemical Co. manufactured lubricating oils, cutting oils, cleaners and preservatives in building #7. This consisted of blending materials such as petroleum oil, alkaline additives, chlorinated hydrocarbons and diester compounds with non-hazardous components. Grignard's "Site Evaluation Submission" dated August 21, 1990 included a Hazardous Substance/Waste Inventory List (Appendix D). The list notes that Grignard used dichlorobenzene, dichloromethane, 1,1,1-trichloroethane and petroleum distillates. High concentrations of dichlorobenzene, 1,1,1-trichloroethane, and B/Ns were detected in sediment sample (SED-5) collected from the drain outside building #5 on October 14, 1988. Petroleum distillates with high molecular weights will be present in the base neutral fraction. Such compounds might be related to B/Ns contamination detected in the ditch.

The company has not manifested any hazardous waste from their facility between 1980 and 1989. Grignard reportedly received a shipment of PCB contaminated transformer oil from G&S Motor Equipment Company in 1981. According to Grignard's response to a "Request for Information" dated January 8, 1991, indicates they are no way related to G&S Motor Equipment Company. High concentrations of PCBs (Arcolor-1248) was detected in the previously noted sediment sample.

Another potential source of contamination is Coronet Chemical Company. The company reclaimed napthalene from spent teflon etching solutions in building #9 during the early eighties. Waste generated from the reclamation process was disposed in a dumpster. Leaking drums of napthalene were observed during RCRA inspections at the facility. The location of the dumpster and leaking drums are not known. However, discharges from either source could seep into the ground or migrate into the drain on the west side of Coronet Chemical.

Coronet Chemical was also developing a sodium dispersion to destroy PCBs. However, it is not known if the company inventory of hazardous substance included PCBs. It should be noted that high concentrations of napthalene and PCBs were detected in sediment sample (SED-5) collected on October 14, 1988. Coronet Chemical was evicted from the facility in 1986. Numerous drums containing metallic sodium were abandoned in building #4. This

building was used for storage. Inspection of the building in July, 1987 revealed that one of the drums had reacted.

Grignard identified Honig Chemical and Processing Co. as having operated in building #7 and #8 during the early seventies (1970-1975). This information was stated in Grignard's ECRA Site Evaluation Submission. In October, 1988 Gerald Berriello of Automatic Electro-Plating stated that Honig operated in a building next to Conus Chemical which exploded. It should be noted that building #13 was destroyed by an explosion in 1962. This is stated in a Newark, Division of Inspections Violation Report.

Honig manufactures organic chemicals at a facility located at 414 Wilson Avenue, Newark, NJ. According to the Division of Environmental Quality, Right to Know Survey, Honig Chemical uses the following hazardous substances: Arsenic trioxide, barium nitrate, benzene, chloroform, dichloromethane, lead nitrate, mercury chloride, mercury acetate, mercury metal, petroleum spirits, pyridine, silver nitrate and toluene. High concentrations of arsenic, barium, lead, mercury and silver were present in a soil sample (S-6). The sample was taken on the west side of building #15 where it was once attached to building #13. High concentrations of acetone, barium, benzene, chloroform, toluene and pyrene were detected in sediment sample (SED-5) collected from the drain between building #1 and building #5.

Hummel Chemical is also believed to have operated on the west side of the Foundry Street Complex according to Howie Levy of Fleet Auto Electric. This information was obtained during a presampling site inspection in October, 1988.

Hummel Chemical Co. Inc. address is listed as 185 Foundry Street in New Jersey Industrial Directories from 1966-1970. A "Request for Information" was issued to Hummel Croton Inc. (HCI), successors of Hummel Chemical, on December 7, 1990. HCI's response dated December 28, 1990 verified that Hummel Chemical operated at the Foundry Street Complex until April of 1968.

The company supplied chemicals to the pyrotechnic industry. Most of the items handled were purchased from other companies in truckloads, rail car, and less than truckload quantities. It should be noted that only the west side of the Foundry Street Complex is serviced by a rail siding. HCI claims that most of the chemicals were shipped out in their original container without being opened. Hummel Chemical also grinded nitrates on the premises. Such operations at the HCI facility in South Plainfield has contributed to soil contamination. Airborne particulate generated by the grinding process would accumulate around ventilators on the roof. Subsequently particulate would wash off the roof from rain and onto the surrounding grounds.

Soil samples (S-7, S-8) taken on the west side of building #5 and #7 contained high concentrations of antimony, cadmium, chromium, copper, lead, mercury, nickel and zinc. HCI indicated that Hummel Chemical handled antimony sulfide and zinconium powder. They may have also handled copper oxide, copper oxychloride, lead chromate, lead dioxide, lead oxide, zinc dust, zinc oxide at the site in Newark. These products are used at the South Plainfield facility.

Hummel Chemical was also a producer of Class III organic chemicals at the Foundry Street Complex according to a USEPA publication entitled "Dioxins" (EPA 600/2-80/197) November, 1980. These organic chemicals are precursor of dioxins. Compounds identified included 2,4-dinitrophenoxyethanol, 3,5-dinitrosalicyclic acid, hexachlorobenzene and picric acid. On October 14, 1988, four soil samples were collected from the Foundry Street Complex and analyzed for the 2, 3, 7, 8 TCDD dioxin isomer. However, none of these samples were taken from areas where Hummel Chemical is believed to have operated.

The ground in a small yard, approximately 50 x 20 feet, situated between Morrel Truck Service (Building #9) and County Lift Truck Service (Building #14) was saturated with oil during a site inspection by the Bureau of Compliance and Technical Services (BCTS) Special Investigation Section personnel on November 7, 1990. In addition, there was evidence of a recent spill where speedy dry had been applied. Spillage was also observed around the drain in the driveway which separates the two facilities from Conus Chemical. The yard contained an assortment of oily/greasy truck parts (i.e. engines, rears, transmissions). These parts were laying directly on the ground without any type of barrier. It should be noted that Morrel repairs trucks and County Lift operates a forklift rental business. Spillage in the yard can penetrate underlying soils or be washed into the drain when it rains.

RFE Industries occupies building #1 which abuts Roanoke Avenue on its north side. On November 7, 1990 approximately ten 55 gallon drums were observed by BCTS personnel in the driveway outside of building #1. Upon closer inspection of the drums, it was discovered that some of the drums had been turned over to allow any remaining contents to drain out. The contents of these drums flowed into a large pool of water in the driveway. The drums were marked "Proprietary Solvent Mix #100" contained denatured ethyl alcohol. Such practice by RFE Industries has contributed to on-site contamination. Other types of materials handled are unknown.

C.W.C. Industries, Inc. stored raw materials (i.e. isopropanol, methyl ethyl ketone, toluene, V.M.P. naptha, methanol) and process residues in a small fenced yard located adjacent to the south side of building #17 and the west side of building #18. On November 7, 1990 staining was observed on the concrete throughout the yard and on the east side of building #18. The concrete in the yard contained many fractures. Any spilled or leaking substance could penetrate the underlying soil through the fractures or migrate into a drain located outside the fence. No diking exits around the storage yard.

High levels of VOCs (i.e. 1,1-dichloroethane, 1,2-dichloroethane, trichloroethylene, benzene, 4-methyl-2-pentanone, toluene, chlorobenzene) were present in a surface water sample collected from the south side of building #17 on October 14, 1988. An active flow was noted in the drain during the sampling. C.W.C. uses toluene. The company applies solvent based surface coatings to polyesters. It is not known if any floor drains are connected to the drainage system or if process effluents is discharged into the drain.

Contamination (i.e. VOCs, B/Ns, priority pollutant metals) detected on the property of Hummel Lanolin Corporation (HLC) may have originated from two sources. An industrial sewer line runs underneath the property before connecting to a city sewerline on Roanoke Avenue. The industrial sewer receives discharge and run-off from the Foundry Street Complex. In July, 1987, a black sludge-like material with a septic odor was encountered during the installation of monitoring wells near the sewerline. The sludge material contained VOCs, PHCs, and metals. A sediment sample collected from a manhole on the sewerline, located upgradient of the facility, contained VOCs, PHCs, and metals. Similar contaminants (i.e. VOCs, PHCs, metals) were present in a sludge sample taken from a basin on the north side of HLC process building. The sludge had back flowed into the basin from the industrial sewerline. It should be noted that the basin is located downgradient of where contamination was detected. Priority pollutant metals (i.e. cadmium, chromium, copper, lead, nickel, zinc) detected in the sludge are used by Automatic Electro-Plating located upgradient of HLC.

Dames & Moore, consultants for HLC, determined that ground water in the vicinity of the former underground storage tank flowed in a east-southeast direction in July, 1987. Soil borings made in the vicinity of the tank contained elevated levels of B/Ns (i.e. napthalene, fluoranthene, chrysene, pyrene, benzo(a)pyrene, phenanthrene). High concentrations of base neutral compounds were detected in five soil samples collected from Avon Drum on October 14, 1988. Avon Drum is located adjacent and hydraulically upgradient of Hummel Lanolin Corporation. HLC did not use any VOCs, B/Ns, or priority pollutant metals in their operations.

Kem Realty purchased Lot 4 in May, 1962. Anthony A. Coraci, Vincent J. Coraci and Mary Coraci were the incorporators of Kem according to the Certificate of Incorporation. A deed between Kem Realty and Hummel Lanolin dated February 28, 1964, identified Vincent Coraci as the President of Kem.

In April, 1976, Kem Realty merged with several companies including Norpak Corporation to form Torco Investment Corporation. Torco's name was subsequently changed to Norpak Corporation by a Certificate of Amendment to a Certificate of Incorporation. Norpak's and Torco Investment Corporation's address are both listed as 70 Blanchard Street, Newark.

By Certificate of Merger dated December 31, 1980, Norpak merged with Norpak Specialties Corporation, Leeds Enterprises, and Abar International Corporation forming ACC Transitional Investing Corporation. Anthony A. Coraci is listed as the registered agent for Norpak Specialties, Leeds, and Abar. A Certificate of Incorporation for ACC Transitional Investing Corporation identifies Anthony A. Coraci, Vincent J. Coraci and Mary Coraci as the first Board of Directors.

ACC conveyed Lot 4 to Norpak on November 11, 1981. A.A. Coraci is currently the President of Norpak Corporation, 70 Blanchard Street, Newark, New Jersey. Therefore, Norpak Corporation, Anthony A. Coraci, Vincent J. Coraci and Mary Coraci have owned Lot 4 since 1962 and subsequently leased out space in buildings on the premises. Numerous discharges have occurred on the property as a result of tenants on site. Norpak and its officers have not made any attempts to remediate contamination on site.

The City of Newark, Division of Inspections issued a Certificate of Occupancy to Essex Chemical for 185 Foundry Street on November 7, 1971. Peter Chan of C.W.C. Industries stated that Essex Chemical once operated in building #17 during a presampling inspection on October 7, 1988. Essex Chemical manufactures inorganic chemicals at a facility on Doremus Avenue. The Division of Environmental Quality, Right to Know Survey indicated that Essex Industrial Chemical uses: Acetone, chloroform, chromium oxide, chromium and compounds, lead nitrate, lead and compounds, and silver nitrate. These substances have been detected in a sediment sample (SED-5) collected from the drain outside of building #5.

ABC Demolition Company was evicted from building #15 by Norpak in October, 1989. The company renovated old buildings and disposed debris from their projects on the property. On November 2, 1989, approximately 13 x 55 gallon drums were observed around the exterior of building #15. Subsequent inspection of the interior of the building discovered additional drums. The Bureau of Compliance and Technical Services, Special Investigation Section determined through their investigation that Norpak, the property owner, was the only viable responsible party (Norpak/ABC Demolition file).

Ace Chemical Corporation was identified as having operated at the Foundry Street Complex according to a Newark, Department of Health and Welfare, Division of Inspections list of "Hazardous Waste Addresses" dated March 12, 1979. Apparently, no certificate of occupancy was issued for this operation by the City of Newark. No other information is known about the company's operations at the Foundry Street Complex.

Tennant Chemical Corporation and Weston Chemical Corporation were also identified as site operators through "Application for Building Permits" issued by the City of Newark. Both companies manufactured chemicals. No other information is known about their operations. Arkansas Company, Inc., Central Dyestuff and Chemical Company, Chemical Industries, Inc., Consolidated Color and Chemical Company, Coronet Chemical Company, Galaxy Inc., H.A. Metz Company, Inc., Ohmlac Paint and Refinishing Company, Tenant Chemical Corporation, and Weston Chemical Corporation have been determined to be dissolved.

Ashland Chemical Company, Automatic Electro-Plating Corporation, Avon Drum Corporation, Berg Chemical Company, Inc., C.W.C. Industries, Inc., Conus Chemical Company, Inc., County Lift Truck Service, Morrel Truck Service, and RFE Industries have been identified as primary responsible parties. The City of Newark, Foundry Street Corporation, Norpak Corporation, and Torco Investment Corporation have also been identified as primary responsible parties for being the owners of the contaminated property located on Lots 4, 5, and 22 (Block 5005).

Essex Chemical Company, Fleet Auto Electric, Grignard Chemical Company, Inc., Honig Chemical and Processing Corporation, Hummel Croton Inc., and Reichhold Chemical Company are potential responsible parties. These companies once operated at the Foundry Street Complex and used substances similar to those detected on site. However only limited or no information exists concerning their activities at the subject site.

Ashland Chemical Company (Case #88695), Hummell Lanolin Corporation (Case #86732) and Sun Chemical Company (Case #86960) have initiated actions to investigate and remediate contamination detected at their facilities pursuant to the Environmental Cleanup Responsibility Act (ECRA). Other ECRA investigations at the Foundry Street Complex include: Automatic Electro-Plating Corporation (Case #85708), Berg Chemical Company, Inc. (Case #90289), C.W.C. Industries, Inc. (Case #90598), Conus Chemical Company, Inc. (Case #90217), Grignard Chemical Company, Inc. (Case #90624).

It is recommended that information provided in this report should be used as a tool to assist in the evaluation of ongoing ECRA investigations (i.e. Berg Chemical, CWC Industries, Inc., Conus Chemical, Grignard Co., Inc.). This may be valuable in determining sampling locations and sampling plans at the noted facilities.

Site investigations conducted by Sun Chemical and Hummel Lanolin Corporation have indicated that ground water is contaminated at the Foundry Street Complex. Therefore all responsible parties and potential responsible parties identified in this investigation should be held jointly and severely liable for contamination of ground water pursuant to the Spill Compensation and Control Act. Their handling of hazardous substances and contributory operations (i.e. storage, processing) have contributed to contamination as noted in this report. It is recommended that an Administrative Consent Order be drafted and issued to the identified responsible parties to address the ground water contamination.

Recovery of administrative costs charged to this case (Project Activity Code JNK and JNM) should be an objective of Department actions. Contact this bureau regarding information or questions on the subject case file.

INVESTIGATOR:

Paul Smith
Environmental Specialist
NJDEP-Division of Hazardous Waste Management
Bureau of Compliance and Technical Services
Special Investigations Section
401 East State Street
Trenton, NJ 08625
(609) 633-0700

FILES UTILIZED:

Newark Department of Engineering
Department of Health and Welfare, Division of Inspections
City of Newark
920 Broad Street
Newark, NJ 07102
Contact: Lenny Iannio
Content: Department of Health & Welfare, Division of Inspections, Violations, Building Permits, Certificate of Occupancy, Complaints for 96-144 Roanoke Avenue and 141-189 Foundry Street

Title & Deed Search
Essex County Hall of Records
469 High Street
Newark, NJ 07102
(201) 621-5000
Contact: Nicolas Caputo
Content: Title & Deed Search for Lots 4, 5, 6, 10, 21 & 22, Block 5005

NJDEP-DHWM, Bureau of Planning & Assessment
65 Prospect Street
Trenton, NJ 08625
Contact: Claire Whittaker
Content: Arkansas Chemical, Grignard Chemical, Sun Chemical Preliminary Assessments, Inspection Reports, Sampling Data, Field Notes

Ashland Chemical
NJDEP-DHWM, Bureau of Environmental Evaluation Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 633-7141
Contact: Annette Christian
Content: General Information Submission, Site Evaluation Submission, Sampling Plans, Sampling Data, Correspondence for Ashland Chemical

Industrial Waste Survey
NJDEP-DHWM, Bureau of Compliance and Technical Services
401 East State Street
5th Floor
Trenton, NJ 08625
(609) 633-0708
Contact: Doug Stuart
Content: Sun Chemical, Ashland Chemical, Arkansas Chemical

NJ Department of Education, Division of State Library
185 West State Street
Trenton, NJ 08625
(609) 292-6220
Contact: Janet Tuerff
Content: Mac Raes Industrial Directory, NJ Industrial Directory, Sanborn Fire Insurance Maps

NJ Department of State, Division of Commercial Recording
Mountainview Office Complex
820 Bear Tavern Road
West Trenton, NJ 08628
(609) 771-1297
Contact: Telefax
Content: Certificate of Incorporation for Coronet Chemical Company, County Lift Truck Service Inc., CWC Industries Inc., Avon Drum Company, Chemical Industries, Inc., Arkansas Company, Inc., A.A.C. Transitional Investment Corporation, Automatic Electro-Plating, Fleet Auto Electric, Hummel Lanolin Corporation, Central Dye Stuff & Chemical Company, Consolidated Color & Chemical Company, H.A. Metz Company, Inc., Roanoke Inc., Kem Realty Company, Foundry Street Corporation, Torco Investing Company, Inc., Norpak Specialties Corporation, Leeds Enterprise Inc., Abar International Corporation, Cellomar Corporation, Grignard Chemical Company, Weston Chemical Corporation, Tenant Chemical, Berg Chemical

NJDEP-DHWM, Bureau of Metro Enforcement
2 Babcock Place
West Orange, NJ 07052
(201) 669-3960
Contact: Yacoub Yacoub
Content: Ashland Chemical Company, Arkansas Company, Inc., Conus Chemical, Coronet Chemical Company, Grignard Chemical Company, Inc., Hummel Lanolin Corporation, Norpak Corporation, Sun Chemical Company, Automatic Electro-Plating, Cellomar Corporation, Honig Chemical, Polychrome, Newark Drive-In, Avon Drum Company

NJDEP-DWR, Bureau of Metro Enforcement
2 Babcock Place
West Orange, NJ 07052
(201) 669-3900
Contact: Peter Lynch
Content: Files Ashland Chemical, Essex Chemical, Sun Chemical; Site Inspections, Spill Reports, Sampling Data, Enforcement Documents

NJDEP-DEQ
2 Babcock Place
West Orange, NJ 07052
(201) 669-3935
Contact: Byron Sullivan
Content: Ashland Chemical, Arkansas Company, Inc., CWC Industries and Hummel Lanolin Permits to Install Air Monitoring Apparatus, Contingency Plans, Enforcement Documents

Passaic Valley Sewerage Commission
600 Wilson Avenue
Newark, NJ 07105
(201) 344-1800
Contact: Anthony Gammaro
Content: PVSC Sample Results, Permits and Correspondence for Arkansas Company, Inc., Cellomar, Automatic Electro-Plating, Hummel Lanolin

Newark Department of Engineering
920 Broad Street
Newark, NJ 07102
(201) 733-4300
Contact: Paul Butler
Content: Arkansas, Conus Chemical, Inspection Reports, Hazardous Material Data Sheet

DWR General Files
NJDEP-DWR, General Files
Carroll Building
432 East State Street
Trenton, NJ 08625
(609) 984-2249
Contact: Laverna Jones

Aerial Photographs
NJDEP-Division of Coastal Resources, Planning Group
501 East State Street
Trenton, NJ 08625
(609) 292-0060
Contact: Mike Ryan
Content: Aerial Photographs NJ State Plane Coordinates 2,147,500'E; 690,300'N

Assessment Search
Newark Administration Building
920 Broad Street
Newark, NJ 07102
(201) 733-6566
Contact: Joseph Frisinn
Content: City Tax Maps, Records of Ownership for Lots 4, 5, 6, 10, 21 & 22, Block 5005

Dun & Bradstreet
Information Resource Center
Carroll Building
432 East State Street
Trenton, NJ 08625
(609) 984-2249
Contact: Dorothy Alibrando
Content: Dun & Bradstreet for Ashland Chemical, Arkansas Chemical, Sun Chemical, Automatic Electro-Plating, Reichhold Chemical, Cellomar Division

Trenton Public Library
Academy Street
Trenton, NJ 08625
(609) 392-7188
Contact: Richard Rebecca
Content: Various Information Source: Directory of Obsolete Securities, Ward Business Directory, Duns Regional Business Directory

FMG000169

Automatic Electro-Plating
NJDEP-DHWM, Bureau of Environmental Evaluation Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 633-7141
Contact: John Kosher
Content: General Information Submission, Site Evaluation Submission, Correspondence for Automatic Electro-Plating

Right to Know
NJDEP-DHWM, Bureau of Compliance and Technical Services
401 East State Street
Trenton, NJ 08625
(609) 633-0700
Contact: Paul Smith
Content: Right to Know Submissions for Refinery for Electronics, Grignard Chemical Company, Automatic Electro-Plating, Sun Chemical, Honig Chemical, Coronet Chemical Company, Cellomar Sub-Division of Poly Chrome Inc., Hummel Chemical

Hummel Chemical
NJDEP-DHWM, Bureau of Central Enforcement
300 Horizon Center
CN 407
Trenton, NJ 08625-0407
(609) 584-4150
Contact: Mark Gruzlovic
Content: Limited Information Pertaining to Hummel Chemical

Preliminary Assessments
NJDEP-DHWM, Bureau of Compliance and Technical Services
401 East State Street
Trenton, NJ 08625
(609) 633-0700
Contact: Bob Beretsky
Content: Preliminary Assessments for Coronet Chemical, Conus Chemical, Sun Chemical, Hummel Lanolin

Sun Chemical
NJDEP-DHWM, Bureau of Environmental Evaluation Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 633-1429
Contact: Mike Kenny
Content: Sampling Plans, Cleanup Plans, Department Correspondence

Hummel Lanolin
NJDEP-DHWM, Bureau of Environmental Evaluation Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 292-1963
Contact: Kenneth Smith
Content: General Information Submission, Cleanup Plan, Sampling Plan, Department Correspondence

Hummel Chemical 98073
NJDEP-DHWM, Bureau of Environmental Evaluation Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 633-1419
Contact: Joshua Gradwohl
Content: General Information Submission, Site Evaluation Submission

Assessment Search
Springfield Township Tax Assessor's Office
100 Mountain Avenue
Springfield, NJ 07081
(201) 912-2200
Contact: Theresa Enright
Content: Tax Assessment for Block 143, Lot 2.02 00604

Assessment Search
Park Ridge Borough Tax Assessor's Office
55 Park Avenue
Parkridge, NJ 07656
(201) 391-6161
Contact: Joseph Burek
Content: Tax Assessment for Block 2505, Lot 7

Conus Chemical Company, Inc. 90217
NJDEP-DHWM, Bureau of Environmental Cleanup & Responsibility Assessment
401 East State Street
Trenton, NJ 08625
(609) 292-6139
Contact: Bill Paterson
Content: General Information Submission, Site Evaluation Submission

FOUNDRY STREET COMPLEX

LOT	BLOCK	BUILDING NUMBER	COMPANY	OCCUPANCY (APPROXIMATE)
4	5005	#1	RFE Industries	01/01/78 - Present
			Amelio Matos	Circa 1972
		#4	Conus Chemical	12/01/84 - 11/30/89
		#5 & #5A	Berg Chemical Company Inc.	11/01/84 - 10/31/87
		#7	Conus Chemical	12/01/84 - 11/30/89
			Grignard Chemical Company Inc.	03/01/75 - 10/01/84
			Honig Chemical and Processing	1970 - 1975
		#9	Morrel Truck Repair	Unknown - Present
			Coronet Chemical Company	12/12/83 - 12/20/84
		#13	Destroyed	Circa 1962
		#14	County Lift Truck Service	11/15/85 - Present
		#15	ABC Demolition	Unknown - 11/89
		#17	CWC Industries Inc.	1985 - 1991
			Leber's Trucking	
			Essex Chemical	Circa 1971
		#18	CWC Industries Inc.	09/01/76 - 08/01/87
		#36	CWC Industries Inc.	09/01/76 - 08/01/87

946020185

FMG000172

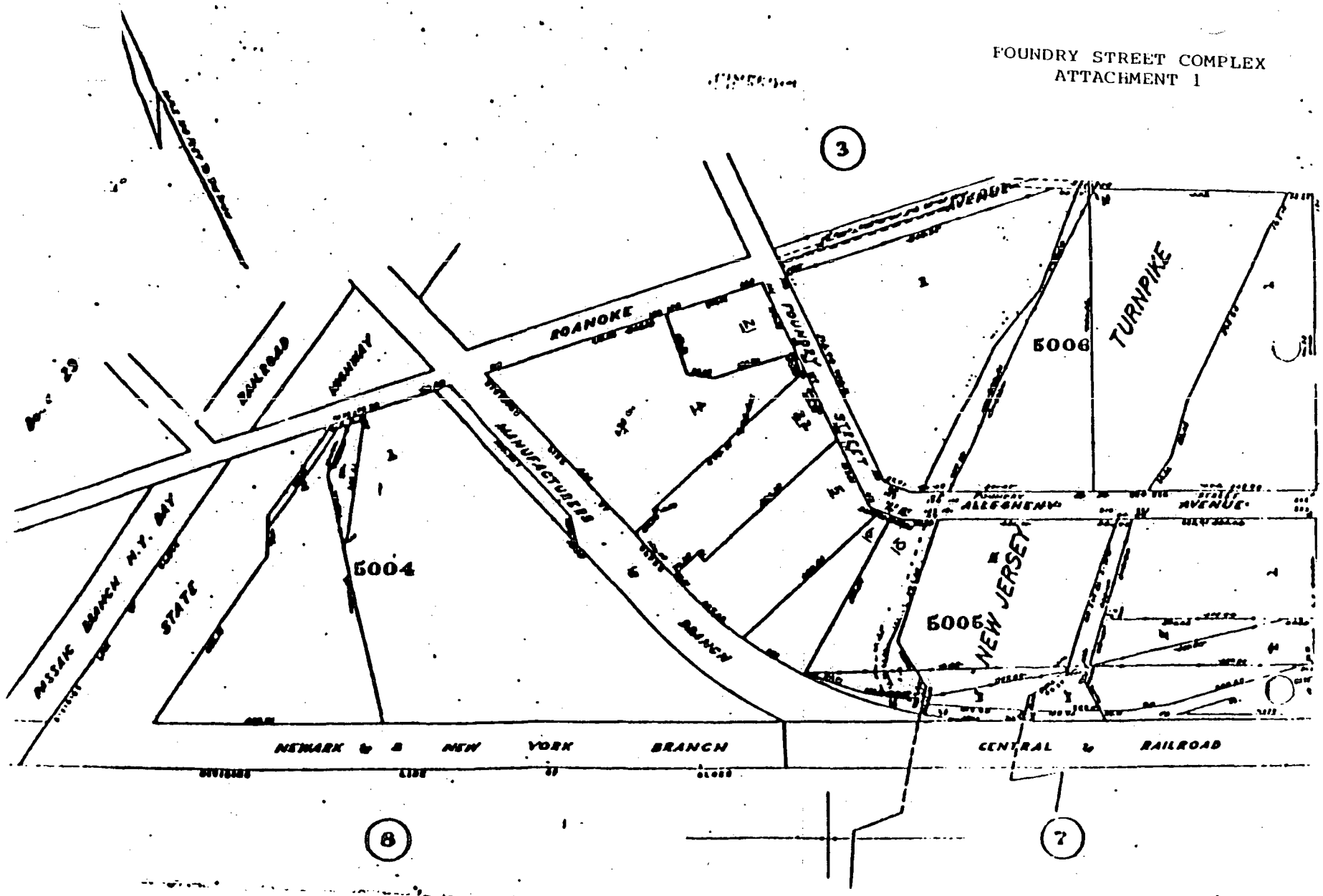
FOUNDRY STREET COMPLEX

LOT	BLOCK	BUILDING NUMBER	COMPANY	OCCUPANCY (APPROXIMATE)
4	5005	#38A, #38B, #38C	PJ Express Trucking Comstock Foods, Division of Curtice-Burns Inc.	08/01/72 - 07/30/86
22	5005	#19	Automatic Electroplating	04/04/71 - Present
		#21	Automatic Electroplating Tennant Chemical	04/04/71 - Present 1963
		#22	Automatic Electroplating	04/04/71 - Present
		#29	Fleet Auto Electric	1968 - Present
		#23, #31, #32, #33, #34, #34A	Sun Chemical Company Cellomer Corporation, Division of Polychrome Corp.	1967 - Present 1964 - 1966
5	5005	#16, #16B, #24, #25, #26, #27, #28, #28B, #30, #32	Arkansas Company Inc.	January 1936 - 1983
21	5005	#39	CWC Industries Inc. Hummel Lanolin Corporation Hasehmeirer Aromatics	Present Lage 1950s - 1987

946020186

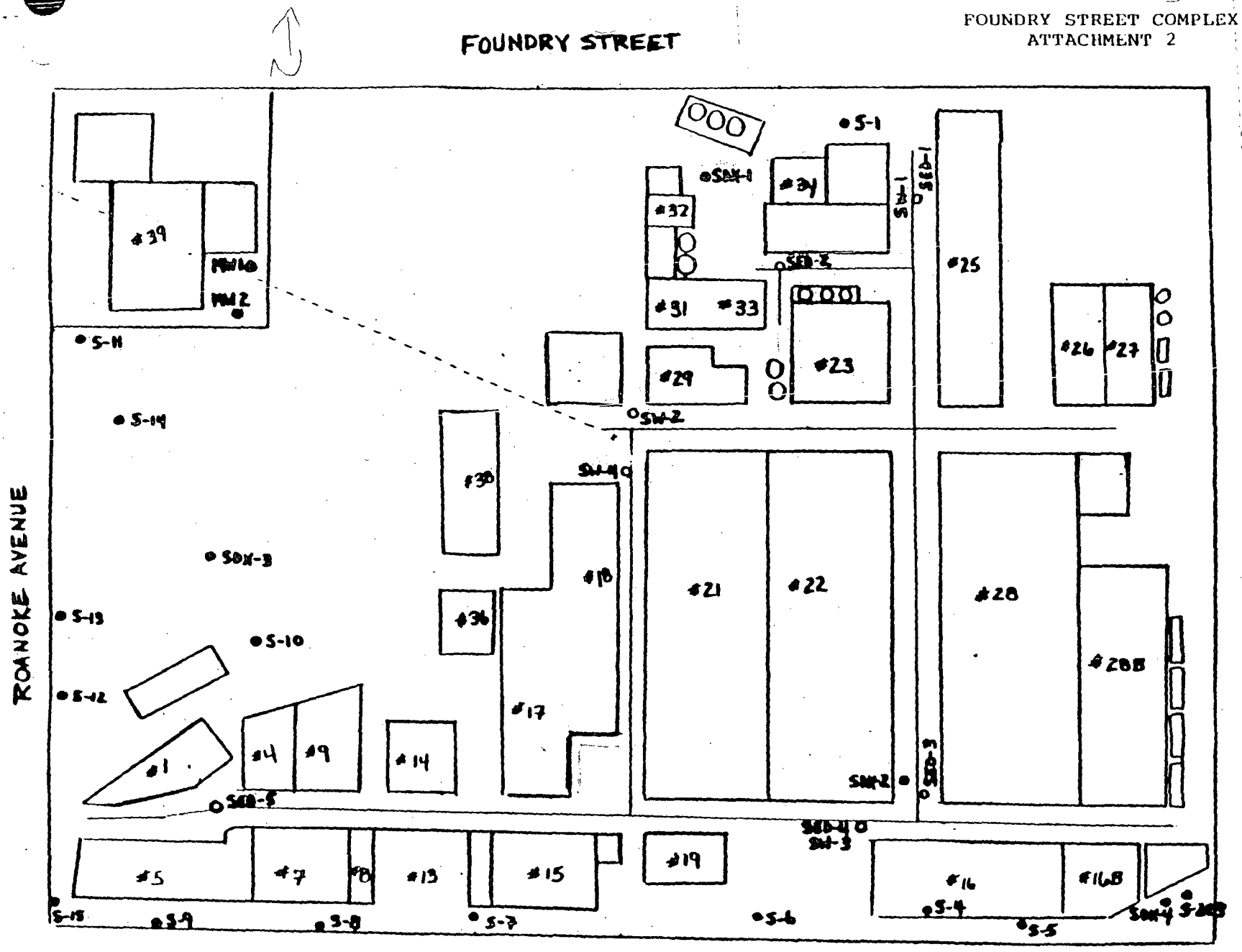
FMG000173

FOUNDRY STREET COMPLEX
ATTACHMENT 1



9460201187

FOUNDRY STREET COMPLEX
ATTACHMENT 2

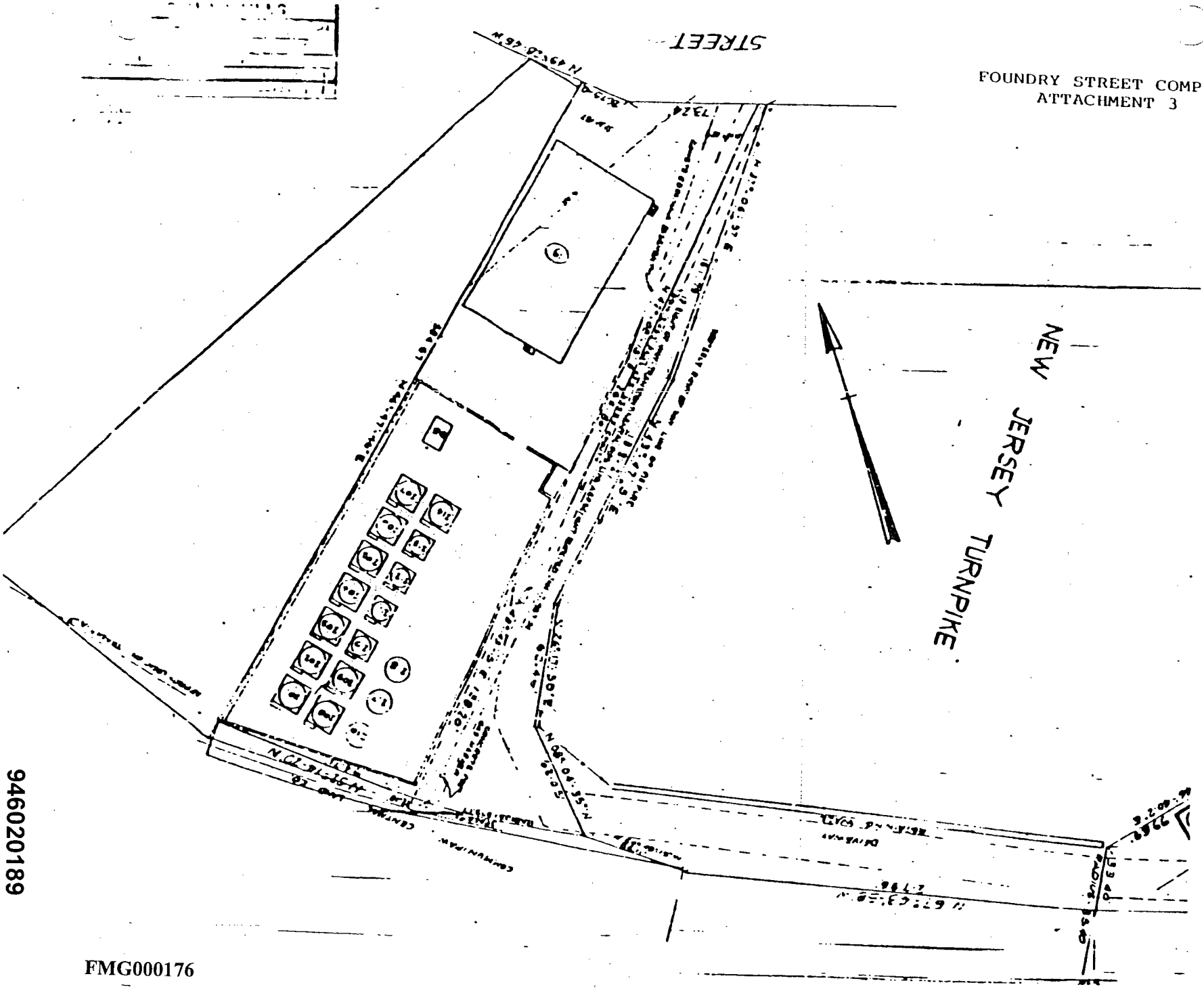


BPA SAMPLING LOCATIONS
OCTOBER 14, 1988

946020188

FMG000175

FOUNDRY STREET COMPLEX
ATTACHMENT 3



946020189

FMG000176

07-14-188

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

RECEIVED
AUG 20 1991

MEMORANDUM

TO: File

FROM: Paul Smith, Investigator
Special Investigation Section
Bureau of Compliance and Technical Services

SUBJECT: Addendum to Foundry Street Complex Responsible Party Investigative Report

DATE: August 15, 1991

On October 14, 1988 the Division of Hazardous Waste Management, Bureau of Planning and Assessment collected 15 soil samples, 5 sediment samples, and 6 aqueous samples, including 2 ground water samples and 4 surface water samples from the Foundry Street Complex. Sediment samples (i.e. SED-1, SED-2, SED-3) were found to have elevated levels of dieldrin. These samples were taken at following locations:

SED-1 was obtained from the strip drain (trough) located in the driveway between Sun Chemical (building #23) and Arkansas Co. Inc. (building #25) near the entrance on Foundry Street.

SED-2 was taken from the strip drain (trough) located in the yard of Sun Chemical, northwest of building #23. This strip drain is connected to the drain in the driveway between Arkansas Chemical and Sun Chemical.

SED-3 was obtained from the strip drain (trough) in the driveway (south end) between Arkansas Co. (building #28) and Automatic Electroplating (building #21 & 22).

Files reviewed at the National Archives (Bayonne, NJ) on August 9, 1991 regarding bankruptcy proceedings "In the Matter of Chemical Insecticide Corp. (case #B-655-70)" makes reference to a letter about the sale of dieldrin to Arkansas Co. Inc., Newark, NJ. According to the letter, Arkansas Co. purchased 4,800 pounds of dieldrin from Chemical Insecticide Corp. on May 19, 1970. Additional purchases of dieldrin for 24,000 pounds and an unknown quantity occurred on June

New Jersey is an Equal Opportunity Employer
Recycled Paper

12, and July 8, 1970 respectively.
Arkansas Co. Inc. is the likely source of the dieldrin detected in sediment samples collected from the strip drains. Wastewater from the company was discharged into the drains that are connected to an industrial/sanitary sewer on Roanoke Avenue.

c. Y. Yacoub, DRPSR, NBFO
L. Grayson, Bureau of Site Assessment
C. Dudley, BCTS

FMG000184

INSPECTION REPORT

CASE NAME: Arkansas Chemical Company
A/K/A Foundry Street Complex

SITE ADDRESS:
185 Foundry Street
Newark, Essex County
New Jersey

INVESTIGATOR: Mark J. Pedersen
Wes Hendricks

PAC: JNM

DATE: Sept. 9, 1992
ARRIVAL TIME: 10:25am
DEPARTURE TIME: 12:23pm
WEATHER: Sunny & Humid

TEMP: _ 75° F

Purpose of Inspection: To conduct a preliminary site investigation to ascertain current site conditions, activities and operations.

Findings: Entry of the Foundry Street Complex Site ("Site) was made from the north west corner (see attached map). It should be noted that throughout the Site there are open and closed storm sewer drain systems which historical records indicate that back up and flood sections of the Site. Upon entry to the Site a Drum reconditioning operation was noted to immediate west, it was surmised that this active operation was known as Avon Drum, operations were ongoing drums were stacked haphazardly (see attached map) about the Site which encompassed approximately .5 acres. A U-Haul Truck was present with Dade County Florida plates (number not taken) an individual was unloading "empty" drums from the truck, the individual (later identified by Barb Dietz-Kantor by description as Merf Nelkin) got in the truck and exited the Avon site. Visual observation of the Avon site and surrounding area continued. It should be noted that drums were stacked and lying on their sides in an area which the underlying gravel appeared stained. There did not appear to be any form of system to prevent residual materials (>1 inch) left in the drums from coming in direct contact with the surface soils and the adjacent storm sewer system.

Adjacent to building #38 (see attached map) there was a duel axle enclosed Trailer (D.J. Trucking on the side) which contained approximately 21 drums no discernable markings were apparent other than a partial warning placard indicating flammable liquid. It is unknown if the drums were empty or full. The drums were of various colors ranging from all blue, all black, all grey and from one with four bands of color in the following order from top to bottom black, red, black and grey. Between the trailer and building #38 there is a loading dock and sub-surface ramp which contained a black petroleum like substance polled and appeared to have saturated the underlying soils. In addition on the loading dock was in total 20 rusted drums, contents, if any unknown.

Diagonally off the south east corner of building #38 approximately 30 feet, was noted a clear plastic 55 gal drum containing approximately one pint of a pale yellow liquid, the bung was open and was on the lowest part of the drum and possibly has been spilled out in a depressed area (area shows signs of moisture unlike rest of area which appears very dry).

Inside building # 36 there was identified eight 55 gal. empty fiber drums labeled Ammonium Silicofluoride manufactured by AGRICO, CAS # 16919-19-2, also present there were two 35 gal. empty metal drums (no labels apparent) one was Blue in color and the other was black. The building was vacant.

In area #13 in the north west corner, there were eight black poly-drums with grey rims and black tops, it is unknown what the contents of the drums are if any although one was marked Acetic Acid, Corrosive Material, CAS # 64-10-7, UN 2789

VCC. In addition there were three 35 gal. plastic blue drums contents were unknown although one had handwritten on the side "Sodium Metal for Bulk" and several non labeled 5 gal. containers. In the South westêrn corner of area #13 there are three 55 gal. metal drums, two of which had handwritten on the side "Plastic". One of the three drums was open and the other two sealed with lids and retaining rings.

In building #15 there are two above ground fuel oil Tanks (heating). Buildings #1, 4, 5, 7 and 9 were locked and access was not attained, contents of buildings is unknown, yet building #7 had a warning placard outside which stated danger hazardous waste, again access was not attained.

Automatic Electro Plating (#21,22), Sun Chemical (#23,31,32,33) and CWC Industries (#39) are currently operating and it appears that all other operation have been discontinued throughout the Site with the exception of Avon Drum identified above.

This writer and Wes Hendricks preceded to the Arkansas Chemical Company site it should be note that buildings #16, 16B, 28B, 26, 27 and 25 are no longer standing and have been demolished. At the Arkansas Chemical Company site This writer was approached by a individual identifying himself as Joseph J. Dultz, Environmental Specialist from Recon Systems Inc. (business card obtained). Mr. Dultz indicated to this writer that Recon Systems Inc. was conducting remedial actions at Sun Chemicals under ECRA. Mr. Dultz stated that Recon was in the process of rerouting and reconstructing the storm sewer system which goes through Sun Chemical's property, he also stated that the open drain system which is throughout the Site discharged to the Storm Sewer not the sanitary system. Also Mr. Dultz whom has worked for Recon, at Sun Chemical, since October 1991 indicated that building # 28B had been demolished just before he started employment with Recon.

At the Arkansas Chemical there are only two structures standing one which is a very small storage shed identified as S-2 an is adjacent to Ashland Chemicals boundary fence in the south east corner of the Site and building #28 which is a four story building. In shed S-2 there are two 55 gal. metal drums one which appears empty and the other appears near full of an unknown substance, both drums do not have markings. There are also eight 5 gal. metal containers of questionable integrity and contents unknown (note: one 5 gal. container is full and labeled "Foamalite" manufactured by American La France and one labeled "Multi-Purpose Gear Lubricant manufactured by AMCO.

Immediately south of building #28 there are three tanks outside the building two are lying horizontal and one is standing vertically. The vertical tank is approximately 10 feet high and 8 feet in diameter, it appears that this vessel is leaking an unidentified liquid substance which was dark (black) in color with a red hue, no apparent sheen and no viscous appearance. One of the horizontal tanks is approximately 30 feet high and 12 feet in diameter the other is approximately 15 to 20 feet long and 9 feet in diameter, no holes nor leaks were detected in either the horizontal tanks. Used tires were observed dumped near the vertical tank and a compressed gas cylinder approximately 4 feet in length and 9 inches in diameter, labeled "Liquid Oxygen".

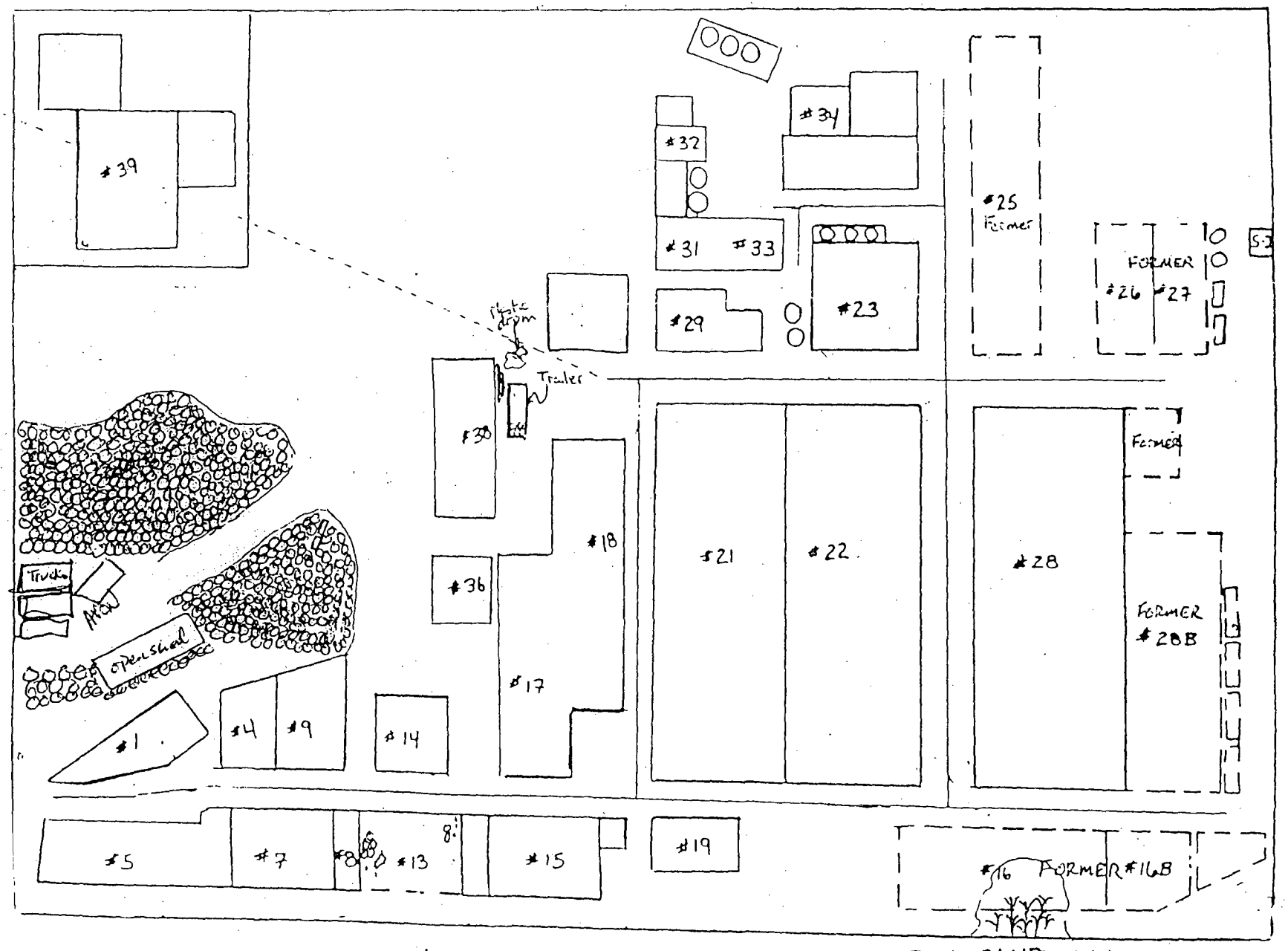
Inside Building #28 it was observed that the floors are stained with unknown substance(s) there is a refuse in the building (bear cans, wine bottles) indicating that possibly trespass has accrued by individuals. On the first floor there are three fiberglass vessels possibly reactor vessels, one labeled "SURFACTANT Sipone V-500". It is unknown if these vessels contain substances, it should be noted that the spickets (valves) located at the bottom of the vessels have been removed. On the second floor one vessel was observed similar in size and composition to those on the first floor, this one though indicated 1040 gal. volume capacity. It should be noted that the building contains many physical hazards such as hanging pipes, holes in the floor, debris , broken glass and the building itself is in disrepair and has questionable structural integrity in places.

In the south west corner of the Site directly behind building #28 there is standing water and sparse vegetation consistent with wetland vegetation, the area in part appears to have been filled with construction debris possibly from the demolition of the other Arkansas Chemical buildings. The standing water appeared milky in color and in parts had a sheen.

Upon exiting the Site, six 55 gal. metal drums were noted on the south side of the Arkansas site, adjacent to the Ashland Chemical Co. fence. The soils under the drums and the area directly adjacent is stained black. Two of the drums have labels hand written on them "Waste Oil" both of these drums were bulging and one "popped" indicating that the drums were under pressure and the substance may not be waste oil as labeled. One 55 gal. metal drum was labeled "Amine O", a surface active agent, manufactured by Ciba Geigy.

Site departure accrued at 12:23 pm.

FOUNDRY STREET COMPLEX



BPA SAMPLING LOCATIONS

946020196

FMG000188

ANNUAL REPORT

by

Chief Engineer
S. A. LUBETKIN

to the

PASSAIC VALLEY SEWERAGE COMMISSIONERS

FOR THE YEAR

1971

54

FMG000189

946020198

Violation - Lyndhurst Yacht Club (continued)

On November 15, Mr. Lubetkin wrote to the club, asking for the method of sewage disposal used by the club.

On December 3, Mr. William Marchioni, Commodore of the Club, replied stating that the Lyndhurst Yacht Club had obtained permission from the Commissioner of Public Works to go into the Lyndhurst Sanitary Sewer System. He stated that the connection should be completed within the next month or so. This will be checked by the Commissioners in January, 1972.

Violations - City of Newark (J. McLaughlin)

General: On February 6, 1970, Judgement was entered against the City of Newark to abate all pollution from the City's Lockwood Street Storm Sewer and Blanchard Street Sewer by May 6, 1970 (3 months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970, (six months from date of Order). The City awarded contracts to construct a sewer in Lister and Blanchard Streets in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Storm Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street Sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time on their pollutions.

On August 25, 1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions have continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and R. Altiero of Newark, at the Commissioners' office. At this conference, the representatives of the City promised to move forward to abate these long standing pollutions. Details are given in the individual sewer pollution reports which follow.

FMG000190

Violations - City of Newark (continued)

Mr. Segreto, the Commissioners' Chief Counsel, in a report to the Commissioners dated December 3, 1971, summarized the situation and recommended that he and Mr. Lubetkin arrange a joint conference with the representatives of the City and then give a full report to the Commissioners so that the Commissioners can take appropriate action. At the request of the Commissioners at their meeting of December 17, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and pointing out that the City was in default of a court order of 1970, and informing them that if the City does not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. As of the end of the year no response had been received. The following is the situation on each of the specific violations as of the end of 1971:

Blanchard Street Storm Sewer - The discharge from this sewer contains oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor, and will have to be attempted again at a later date.

At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged by this sewer to the River with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107 mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

Brown Street Storm Sewer - Previously the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution had been abated since no dry weather flow came from this sewer.. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since a sample taken December 14, 1971, showed high C.O.D., turbidity, and was positive to a H_2S test.

FMG000191

Violations - City of Newark (continued)

Harrison Ditch Storm Sewer - Oily liquid continues to discharge from this sewer to the Passaic River.

On October 28, 1971, Inspector McLaughlin met with Mr. Altiero and three assistants, and traced a pollution to the Bayonne Barrel and Drum Co. (see page 67 of the report), from this sewer. The pollution from this source was halted during November, but pollution from the Harrison Ditch Storm Sewer continues. (The December 14 sample had a C.O.D. of 5662 mg/l).

Lockwood Street Storm Sewer - Mr. R. Altiero, Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13 conference by representatives of Newark that part of this sewer was failing and a consultant would have to be hired for recommendations.

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several polluting connections to this sewer in Belleville were eliminated (see Belleville page 68).

Roanoke Avenue Storm Sewer - Industrial waste continues to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer. On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates have been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and the chamber between Doremus Avenue and Avenue P. In a letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that the work was awarded to Condrin Construction Co., and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin, began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December.

FMG000192

Violations - City of Newark (continued)

Roanoke Avenue Storm Sewer (continued)

On December 9 at approximately 9:30 A.M., the General Sewer Cleaning Company was preparing to put a TV camera into the sewer when an explosion occurred injuring three men. The explosion was located in the manhole on the Pitt-Consul Chemical Company property.

Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City with analyses performed by Edel Laboratories before allowing anyone else to enter the sewer. The December 14 sample showed a C.O.D. of 1051.

Violation - Newark Paraffine Paper Company, 70 Blanchard Street, Newark, N. J.
December 14 - 31, 1972 (J. McLaughlin)

One of the pollutions uncovered by Messrs. T. Cassera and Mr. A. Reitano (see Special Report No. 12, page 47), was from Newark Paraffine Paper Company.

The sample taken by Mr. J. McLaughlin and Mr. W. Fleming on December 14 was polluting. Mr. Lubetkin wrote to this company on December 20, directing them to halt this pollution at once and to inform the Commissioners what is being done to halt the pollution.

On January 4, 1972, Mr. A. A. Coraci, Secretary-Treasurer of this company, wrote that the matter has been taken up with the Mogul Corporation, their water treatment people, and have been assured of an early response.

As of the end of the year, the pollution continued.

Violation - City of Orange, Washington Street Storm Sewer
Intermittent (R. Goldstein)

This is an intermittent violation. E. T. Killam Associates, in a report dated September, 1962, had originally recommended a complete rebuilding of this sewer to eliminate the pollution, but the cost was considered too high by the City. In 1965 the Commissioners took legal action against the City of Orange to halt the pollution.

The City did not build the new system needed but, as a result of the legal action, they plugged openings and repaired cracks to halt the pollution. They also installed a chlorination station, which went into operation May 15, 1966, to disinfect that sewage which they were unable to prevent from leaching into the system.

FMG000193

ANNUAL REPORT

by

Chief Engineer

S. A. FUBLEKIN

to the

PASSAIC VALLEY SEWERAGE COMMISSIONERS

FOR THE YEAR

1972

946020204

Violation-City of Newark (J. McLaughlin)

General:

On February 6, 1970, Judgment was entered against the City of Newark to abate all pollution from the City's Lockwood Street and Blanchard Street Storm Sewers by May 6, 1970,(three months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970(six months from date of Order). The City awarded contracts to construct a sewer in Lister and Blanchard Streets in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street Sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time on their pollutions.

On August 25, 1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions have continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and Mr. R. Altiero of Newark, at the Commissioners' office. At this conference the representatives of the City promised to move forward to abate these long standing pollutions.

At the request of the Commissioners at their meeting of December 17, 1971, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and pointing out that the City was in default of a court order of 1970, and informing them if the City does not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. Since no response was received, Mr. Segreto again wrote to both the Mayor and City Council on January 5, 1972. On January 19, Mr. F. D'Ascensio wrote to Mr. Segreto, informing him that the letter was brought before the City Council December 30, 1971, and a letter sent to Mayor Gibson, January 3, requesting information from the Mayor. Nothing was heard and a second letter dated January 6, was sent to the Mayor. As of January 19, the City Clerk stated that still nothing had been heard from the Mayor and the matter had been put on the calendar of the January 25, 1972 Special Conference of the Council

On January 25, Mr. Roger Lowenstein, Assistant Corporation Counsel, called Mr. Segreto and informed him that the matter had been referred to him and that he would confer with the Engineering Department and contact Mr. Segreto in a few days.

FMG000195

Violation-City of Newark, cont'd

After hearing nothing further, Mr. Segreto filed a Notice of Motion for Supplemental Relief pursuant to the provisions of R.S. 1:10-5 in the Superior Court of New Jersey, Docket No. C-2886-68. Hearing was set for February 18, 1972.

At the hearing Newark admitted it was polluting and their new Chief Engineer, Mr. A. Zack, stated that Newark desired to halt the pollution but they would need time. Judge Ward Herbert ordered that the City of Newark submit to the Court and to the Commissioners within three months from date, a detailed written engineering report containing a specific proposal which Newark will undertake to abate the pollution. The order was dated February 28, 1972.

On June 8, the City of Newark sent a report to the Commissioners entitled"Pollution Report and Abatement Plan of the City of Newark" dated May 26, 1972. Mr. Lubetkin reviewed the report and although this report showed work done, it was not complete in many details, and after discussing the matter with the City, they agreed it was only an interim report to show that they are actively working on this matter.

On July 6, 1972, a conference was held at Newark City Hall. It was pointed out by Newark that a considerable amount of work had been done on these pollutions but they have not complied with the court orders concerning specific proposals, etc. The City stated that it needed more time and would apply to the Court for this.

Since no action on a court application was made, Mr. Segreto,on August 28, 1972, wrote to the City that unless the City moves by the end of the week, the Passaic Valley Sewerage Commissioners would have no alternative but to file motions for supplemental relief.

Receiving no reply, Mr. Segreto again wrote to Mr. Lowenstein outlining in detail the problem, and stating that this would be the last notification and that unless formal application for extension of time was made by the City, the Passaic Valley Sewerage Commissioners would have to apply for supplemental relief.

This was done on September 18, 1972, and the motions were scheduled for October 20, 1972.

In the meantime, in September 1972, the Harrison Ditch Storm Sewer was eliminated from the violation list.

At the request of the City, the motion was adjourned until November 19, 1972, In a letter to Mr. Segreto, dated October 20, a report on progress by Mr. A. Zach dated October 18, was enclosed.

On November 10, 1972, the matter was heard before Judge Herbert. The Court ordered illegal connections be terminated by March 1, 1973, and all pollution be halted by September 1, 1973.

FMG000196

946020206

The following is the status as of the end of December, 1972:

Blanchard Street Storm Sewer - The discharge from this sewer contains oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor, and will have to be attempted again at a later date. At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged from this sewer to the River with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

The October 18 report recommends the relaying of 1300 ft. of sewer from the bend in the road to the Passaic River in Blanchard St. Plans and Specifications are being prepared and the estimated cost of work is $250,000. If the project can be funded by mid-December, the work should be completed by June 1, 1973. The project was not funded.

Brown Street Storm Sewer-Previously, the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution had been abated since no dry weather flow came from this sewer. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since samples taken December 14, 1971 and January 25, 1972 showed high C.O.D., turbidity, and were positive to a H_2S test.

The June 8 report recommended a relining of this sewer, if feasible. Unfortunately, an inspection made after the report was written revealed a pile had been driven through this sewer. This pile had been driven in 1964, but according to Sherwin-Williams, the break area was boxed with concrete around the pile to give the sewer the same volume outflow. Although the area of the pile may not be the source of polluting infiltration, it makes it difficult to reline the sewer. The polluting material, a "still bottom" is probably being pumped into the ground from some nearby industry, and the City of Newark representatives said they are trying to locate the source.

The October 18 report stated they were still studying the feasibility of relining, and that they expected their analysis to be completed within thirty days.

Mr. Zack reported that relining was not feasible. He reports that the plan as of the end of 1972 is to seal and abandon this sewer and relay a new 12" storm line as a substitute.

FMG000197

946020207

Lockwood Street Storm Sewer - Mr. R. Altiero, Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue, was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of the Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13, 1971 conference by representatives of Newark that part of this sewer was failing and a consultant would have to be hired for recommendations.

The June 8 report again recommended a visual inspection and manhole to manhole survey be made in order to determine and seal illegal connections. In Mr. Zack's memo of June 6, he stated that it is anticipated this can be accomplished within a two month period.

The October 18 report states they are listing all industries in the area and work is quite involved.

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several pollution connections to this sewer in Belleville were eliminated.

The June 8 report recommended a visual inspection and a flushing of this sewer. It is estimated a two month period is needed.

The October 18 report stated that detailed monitoring and surveillance is required, and cited the use of this sewer by Belleville as a possible source of pollution. They expect to isolate the responsibility for the pollution within two months time.

Samples taken by Mr. R. Altiero indicated that a significant pollution is coming from the Belleville area.

Roanoke Avenue Storm Sewer - Industrial waste continued to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer. On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates have been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and the chamber between Doremus Avenue and Avenue P. In a letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that the work was awarded to Condrin Construction Company, and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin,began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December. On December 9, at approximately 9:30 A. M., the General Sewer Cleaning Company was preparing to put a TV camera into the sewer when an explosion occurred, injuring three men. The explosion was located in the manhole on the Pitt-Consul Company property. Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City, with analyses performed by Edel Laboratories before allowing anyone else to enter the sewer. TV inspection was completed January 10, 1972,

946020208

Roanoke Avenue Storm Sewer, cont'd.

and a 10" connection was found west of Doremus Avenue on Pitt-Consul property. Discharge was highly polluting (C.O.D. 2662 mg/l). On January 24, samples taken by Inspector McLaughlin showed explosive vapors in this sewer. Mr. Altiero was informed immediately and Mr. Lubetkin sent a follow-up letter to Mr. S. Friscia, Director of the Department of Public Works.

The June 8 report stated that the solution would be to relay approximately 1,200 feet of 54" pipe from Doremus Avenue to Avenue P. No time table is given, but they feel this work cannot be done until 1973.

The October 18 report repeats that the solution would be to relay 1200 feet of this line.

Violation-City of Orange, Washington Street Storm Sewer
Intermittent (R. Goldstein)

This is an intermittent violation. E.T. Killam Associates, in a report dated September, 1962, had originally recommended a complete rebuilding of this sewer to eliminate the pollution, but the cost was considered too high by the City. In 1965 the Commissioners took legal action against the City of Orange to halt the pollution.

The City did not build the new system needed, but as a result of the legal action, they plugged openings and repaired cracks to halt the pollution. They also installed a chlorination station, which went into operation May 15, 1966, to disinfect that sewage which they were unable to prevent from leaching into the system.

For a period of time samples were satisfactory, then samples were intermittently bad, as plugs fell out and cracks opened. Repairs are made as needed.

On March 9, 1971, the City informed the Commissioners that they were in the process of trying to obtain Federal and State assistance to improve the City's sanitary sewerage system. On March 22, Mr. Lubetkin wrote to the City stating that the Commissioners hope that the work for which assistance is being sought will include the rebuilding of the Washington Street Storm Sewer.

On April 26, 1971, Mr. Lubetkin wrote to Mr. DeCarlo, City Engineer, informing him of the problem and asking what program the City of Orange would institute to abate the pollution completely. A letter dated October 22, from the E.T. Killam Associates to the Commissioners, explained that the City has made application to the Department of Housing and Urban Development for major improvements to the sewer system and has had many meetings on this matter with H.U.D. and the Environmental Protection Agency. The letter stated that the City wished to proceed with this project, but was unable to do so until financial assistance could be obtained from the Federal or State Government.

946020209

ANNUAL REPORT

by

Chief Engineer

S. A. LUBETKIN

to the

PASSAIC VALLEY SEWERAGE COMMISSIONERS

FOR OPERATIONS DURING

THE YEAR

1974

G000209

946020211

Violation - Mallinckrodt Chemical Co. (continued)

On December 4, 1974, Mr. Bauer wrote to PVSC stating that contracts had been awarded to a mechanical and an electrical contractor and that they were having problems in material availability.

As of the end of 1974, the electrical work was 90% complete and the mechanical contractor expected to have his steel supports in place in early January and hoped to be finished soon thereafter.

Violation - City of Newark (J. McLaughlin)

On February 6, 1970, Judgement was entered against the City of Newark to abate all pollution from the City's Lockwood Street and Blanchard Street Storm Sewers by May 6, 1970, (three months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970 (six months from date of Order). The city awarded contracts to construct a sewer in Lister and Blanchard Street in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time for their pollution.

On August 25,1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions have continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and Mr. R. Altiero of Newark, at the Commissioners' office. At this conference the representatives of the City promised to move forward to abate these long standing pollutions.

At the request of the Commissioners at their meeting of December 17, 1971, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and point-

Violations - City of Newark (con't)

ing out that the City was in default of a court order of 1970, and informing them that if the City does not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. Since no response was received, Mr. Segreto again wrote to both the Mayor and City Council on January 5, 1972. On January 19, Mr. F. D'Ascensio wrote to Mr. Segreto, informing him that the letter was brought before the City Council December 30, 1971, and a letter sent to Mayor Gibson, January 3, requesting information from the Mayor. Nothing was heard and a second letter dated January 6, was sent to the Mayor. As of January 19, the City Clerk stated that still nothing had been heard from the Mayor and the matter had been put on the calendar of the January 25, 1972 Special Conference of the Council.

On January 25, Mr. Roger Lowenstein, Assistant Corporation Counsel, called Mr. Segreto amd informed him that the matter had been referred to him and that he would confer with the Engineering Department and contact Mr. Segreto in a few days.

After hearing nothing further, Mr. Segreto filed a Notice of Motion for Supplemental Relief pursuant to the provisions of R.S. 1:10-5 in the Superior Court of New Jersey, Docket No. C-2886-68. Hearing was set for February 18, 1972.

At the hearing Newark admitted it was polluting and their new Chief Engineer, Mr. A. Zack, stated that Newark desired to halt the pollution but they would need time. Judge Ward Herbert ordered that the City of Newark submit to the Court and to the Commissioners within three months from date, a detailed written engineering report containing a specific proposal which Newark will undertake to abate the pollution. The order was dated February 28, 1972.

On June 8, the City of Newark sent a report to the Commissioners entitled " Pollution Report and Abatement Plan of the City of Newark" dated May 26, 1972. Mr. Lubetkin reviewed the report and although this report showed work done, it was not complete in many details, and after discussing the matter with the City, they agreed it was only an interim report to show that they are actively working on this matter.

On July 6, 1972, a conference was held at Newark City Hall. It was pointed out by Newark that a considerable amount of work had been done on these pollutions but they have not complied with the court orders concerning specific proposals, etc.

Violations - City of Newark (con't)

The City stated that it needed more time and would apply to the Court for this.

Since no action on a court application was made, Mr. Segreto on August 28, 1972, wrote to the City that unless the City moves by the end of the week, the Passaic Valley Sewerage Commissioners would have no alternative but to file motions for supplemental relief.

Receiving no reply, Mr. Segreto again wrote to Mr. Lowenstein outlining in detail the problem, and stating that this would be the last notification and that unless formal application for extension of time was made by the City, the Passaic Valley Sewerage Commissioners would have to apply for supplemental relief.

This was done on September 18, 1972, and the motions were scheduled for October 20, 1972.

In the meantime, in September 1972, the Harrison Ditch Storm Sewer was eliminated from the violation list.

At the request of the City, the motion was adjourned until November 19, 1972. In a letter to Mr. Segreto, dated October 20, a report on progress by Mr. A. Zach dated October 18, was enclosed.

On November 10, 1972, the matter was heard before Judge Herbert. The Court ordered illegal connections be terminated by March 1, 1973, and all pollution be halted by September 1, 1973.

On February 19, 1974, Mr. S. Friscia, Director of Public Works wrote to PVSC giving the status of each item as of that date (the information is included in the following detailed report).

On February 20, 1974, Mr. Raymond Nesto, Manager of Division of Sewers in Newark, addressed the PVSC, requesting help in halting the pollutions of the Newark sewers. He was assured that PVSC, as it always had in the past, would continue to help in any way possible. On February 27, Mr. Lubetkin wrote to him confirming this and suggesting a conference, and suggesting that the City's legal department contact the PVSC legal department and arrange for such a conference.

On June 24, 1974, Mr. Lubetkin wrote to Mr. Zack for an up-to-date report on any progress achieved to eliminate the various Newark Storm Sewer pollutions. On August 23, Mr. Nesto wrote to PVSC stating that funds for television inspection had been requested. On August 26, Mr. Lubetkin wrote Mr. Nesto requesting a time schedule for the work. On September 3, Mr. Lubetkin again wrote requesting further information, and Mr. Nesto replied on September 6 that the Standard Tallow Company was under mandate by the Health Department to

Violations - City of Newark (con't)

install facilities to eliminate grease discharges, and that the Norpak Corp. had been under litigation since 1972 to eliminate its septic tanks. He also stated that they are working towards the elimination of the problem of the various storm sewers.

On September 13, 1974, Chairman Bay wrote to Mayor Gibson on these matters, asking that he review them and requesting a decision as to what is to be done.

On January 16, 1975, Mr. Zack wrote to PVSC updating the Newark progress on each of the sewers involved. He stated that Newark was sorry it had not been able to complete the work more rapidly, however, due to limited funds,work had to be put off. He stated that it was Newark's intention to proceed in an expeditious fashion upon the availability of funds on or about April 1, 1975.

The following is the status as of the end of 1974:

Blanchard Street Storm Sewer - The discharge from this sewer contained oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor and will have to be attempted again at a later date. At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged from this sewer to the river, with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107 mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

The October 18 report recommended the relaying of 1300 feet of sewer from the bend in the road to the Passaic River in Blanchard Street. Plans and sepcifications were being prepared and the estimated cost of the work was $250,000.00. If the project could be funded by mid-December the work would be completed by June 1, 1973. The project was not funded.

Violations - City of Newark (con't)

As of the end of July 1973, Mr. Zack reported that plans, contracts and specifications had been prepared and the Division of Sewers was waiting the approval of a Bonding Ordinance by the City Council to provide funds for the project.

The City spent the latter part of 1973 rodding, dragging and jetting the sewer lines for cleaning. In the February 19, 1974 letter, Newark reported that the source of the pollution had been determined to be the effluent from the Standard Tallow Company. They also reported that they had served notice on Standard Tallow Company to cease and desist.

During 1975, Newark had continued to monitor the effluent from this sewer in an effort to determine where interconnections exist that introduce pollutants into the sewer. In addition, the proposed 1975 capital budget carries funds to conduct a more detailed cleaning of the sewer and a TV inspection and monitoring program. As each source of pollution is located, the connection will be removed and/or sealed as is determined by the Division of Sewers in the best interest of the City.

Brown Street Storm Sewer- Previously, the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution was abated since no dry weather flow came from this sewer. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since samples taken December 14, 1971,and January 25, 1972 showed high C.O.D., turbidity, and were positive to a H_2S test.

The June 8 report recommended a relining of this sewer, if feasible. Unfortunately, an inspection made after the report was written revealed a pile had been driven through this sewer. This pile had been driven in 1964, but according to Sherwin- Williams, the break area was boxed with concrete around the pile to give the sewer the same volume outflow. Although the area of the pile may not be the source of the polluting infiltration, it makes it difficult to reline the sewer. The polluting material, a "still bottom" was probably being pumped into the ground from some nearby industry, and the City of Newark's representatives said they were trying to locate the source.

The October 18 report stated they were still studying the feasibility of relining, and that they expected their analysis to be completed within thirty days.

Mr. Zack reported that relining was not feasible. He reported that the plan as of the end of 1972 was to seal and abandon this sewer and relay a new 12" storm line as a substitute.

MG000214

Violations - City of Newark (con't)

As of the end of July 1973, Mr. Zack reported that arrangements are in process for a TV camera inspection to determine the condition of the line, to be followed by the necessary remedial action.

Monies had been requested, but not appropriated as expected, in the City's 1974 operating budget to clean this sewer and conduct a detailed television survey. It was anticipated that this would have been completed by the end of March 1974. Following this Mr. Friscia stated that illegal connections, if any, would be terminated, and areas of seepage, if existing, would be pressure grouted.

Funds have been established in the proposed 1975 capital budget to carry out the work previously mentioned. It is expected the funds would be available on or about April of 1975

Lockwood Street Storm Sewer- Mr. R. Altiero , Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue, was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of the Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13, 1971 conference by representatives of Newark, that part of this sewer was failing and a consultant would have to be hired for recommendations.

The June 8 report again recommended a visual inspection and manhole to manhole survey be made in order to determine and seal illegal connections. In Mr. Zack's memo of June 6, he stated that it was anticipated this could be accomplished within a two month period.

The October 18 report stated they were listing all industries in the area and work was quite involved.

As of the end of July 1973, Mr. Zack reported that visual inspection of the line continued in order to determine and seal illegal connections and report the condition of the sewer line. He stated progress had been limited due to manpower available, but it was anticipated the survey would be completed in the near future.

The February 19, 1974 report stated that heavy deposits of silt and mud materials and gas in the line had prohibited any form of remedial action by the City's forces. They were waiting for funds to be appropriated in the 1974 Budget.

We are informed that funds for the corrective work had been included in the proposed 1975 capital budget.

rMG000215

Violations - City of Newark (con't)

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several pollution connections to this sewer in Belleville were eliminated.

The June 8 report recommended a visual inspection and a flushing of this sewer. It was estimated a two month period was needed.

The October 18 report stated that detailed monitoring and surveillance was required, and cited the use of this sewer by Belleville as a possible source of pollution. They expected to isolate the responsibility for the pollution within two months time. Samples taken by Mr. R. Altiero indicated that a significant pollution was coming from the Belleville area.

As of the end of July 1973, Mr. Zack reported that Newark had eliminated all complaints for which they were responsible, and it was believed that Belleville was now the source of pollution. Mr. Zack also reported that Belleville is of the opinion that Bloomfield was in turn responsible for the pollution. Efforts by Newark to have the matter resolved had not been successful and had been referred to Newark's legal department.

The August 23, 1974 report from Newark again stated that there are no violations within Newark and that requests had been made of Newark's Legal Department to institute proceedings against the Town of Belleville. Mr. Lubetkin, in his letter to Newark dated August 26, 1974, pointed out that this statement had been also made previously (February 19, 1974) and requested further information as to the status of the legal action.

In Mr. Zack's letter of January 16, 1975, he repeated that the matter had been referred to the City's Law Department.

Roanoke Avenue Storm Sewer - Industrial waste continued to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer.

On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer, to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates had been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and Avenue P. In a

AG000216

946020218

Violations - City of Newark (con't)

Roanoke Avenue Storm Sewer

letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that work was awarded to Condrin Construction Company, and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin, began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December. On December 9, at approximately 9:30 A.M., the General Sewer Cleaning Co. was preparing to put a TV camera into the sewer when an explosion occurred, injuring three men. The explosion was located in the manhole of the Pitt-Consul Company property. Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City, with analyses performed by Edel Laboratories before allowing anyone to enter the sewer. TV inspection was completed January 10, 1972, and a 10" connection was found west of Doremus Avenue on Pitt-Consul property with a highly polluting discharge (C.O.D. 2662 mg/l). On January 24, samples taken by Inspector McLaughlin showed explosive vapors in this sewer. Mr. Altiero was informed immediately and Mr. Lubetkin sent a follow-up letter to Mr. S. Friscia, Director of the Department of Public Works.

The June 8 report stated that the solution would be to relay approximately 1,200 feet of 54" pipe from Doremus Avenue to Avenue P. No time table was given, but they felt this work could not be done until 1973.

The October 18 report repeated that the solution would be to relay 1,200 feet of this line.

As of the end of July 1973, Mr. Zack reported that plans and specifications were being prepared for the replacement of approximately 1300 feet of 54" sewer from Doremus Avenue to Avenue P including the preparation of legislation for a bonding ordinance to provide the necessary funds.

Mr. Friscia reported that the City's 1974 Budget included an appropriation to purchase essential safety and testing equipment to permit inspection since explosive vapors are in this line. He stated they wished to make an inspection to confirm proposed construction as being the necessary way to halt the pollution.

Mr. Zack, in his letter of January 16, 1975, stated the work had not been done due to lack of funding, but stated, as with the other sewers, funds had been placed in the proposed 1975 capital budget for the above work. He further stated that these funds should be available on or about April of 1975.

ANNUAL REPORT

by

Chief Engineer

S. A. LUBETKIN

to the

PASSAIC VALLEY

SEWERAGE COMMISSIONERS

FOR OPERATIONS DURING

THE YEAR

1976

FMG000218

946020221

Violations - City of Newark (J. McLaughlin & J. Colello)

On February 6, 1970, Judgement was entered against the City of Newark to abate all pollution from the City's Lockwood Street and Blanchard Street Storm Sewers by May 6, 1970, (three months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970 (six months from date of Order). The city awarded contracts to construct a sewer in Lister and Blanchard Street in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time for their pollution.

On August 25, 1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions had continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and Mr. R. Altiero of Newark, at the Commissioners' office. At this conference the representatives of the City promised to move forward to abate these long standing pollutions.

At the request of the Commissioners at their meeting of December 17, 1971, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and pointing out that the City was in default of a court order of 1970, and informing them that if the City did not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. Since no response was received, Mr. Segreto again wrote to both the Mayor and City Council on January 5, 1972. On January 19, Mr. F. D'Ascensio wrote to Mr. Segreto, informing him that the letter was brought before the City Council December 30, 1971, and a letter sent to Mayor Gibson, January 3, requesting information from the Mayor. Nothing was heard and a

FMG000219

Violations - City of Newark (con't.)

second letter dated January 6, was sent to the Mayor. As of January 19, the City Clerk stated that still nothing had been heard from the Mayor and the matter had been put on the calendar of the January 25, 1972 Special Conference of the Council.

On January 25, Mr. Roger Lowenstein, Assistant Corporation Counsel, called Mr. Segreto amd informed him that the matter had been referred to him and that he would confer with the Engineering Department and contact Mr. Segreto in a few days.

After hearing nothing further, Mr. Segreto filed a Notice of Motion for Supplemental Relief pursuant to the provisions of R.S. 1:10-5 in the Superior Court of New Jersey, Docket No. C-2886-68. Hearing was set for February 18, 1972.

At the hearing Newark admitted it was polluting and their new Chief Engineer, Mr. A. Zack, stated that Newark desired to halt the pollution but they would need time. Judge Ward Herbert ordered that the City of Newark submit to the Court and to the Commissioners within three months from date, a detailed written engineering report containing a specific proposal which Newark will undertake to abate the pollution. The order was dated February 28, 1972.

On June 8, the City of Newark sent a report to the Commissioners entitled " Pollution Report and Abatement Plan of the City of Newark" dated May 26, 1972. Mr. Lubetkin reviewed the report and although this report showed work done, it was not complete in many details, and after discussing the matter with the City, they agreed it was only an interim report to show that they are actively working on this matter.

On July 6, 1972, a conference was held at Newark City Hall. It was pointed out by Newark that a considerable amount of work had been done on these pollutions but they have not complied with the court orders concerning specific proposals, etc. The City stated that it needed more time and would apply to the Court for this.

Since no action on a court application was made, Mr. Segreto on August 28, 1972, wrote to the City that unless the City moved by the end of the week, the Passaic Valley Sewerage Commissioners would have no alternative but to file motions for supplemental relief.

Receiving no reply, Mr. Segreto again wrote to Mr. Lowenstein outlining in detail the problem, and stating that this would be the last notification and that unless formal application for extension

FMG000220

946020223

Violations - City of Newark (con't.)

of time was made by the City, the Passaic Valley Sewerage Commissioners would have to apply for supplemental relief.

This was done on September 18, 1972, and the motions were scheduled for October 20, 1972.

In the meantime, in September 1972, the Harrison Ditch Storm Sewer was eliminated from the violation list.

At the request of the City, the motion was adjourned until November 19, 1972. In a letter to Mr. Segreto, dated October 20, a report on progress by Mr. A. Zach dated October 18, was enclosed.

On November 10, 1972, the matter was heard before Judge Herbert. The Court ordered illegal connections be terminated by March 1, 1973, and all pollution be halted by September 1, 1973.

On February 19, 1974, Mr. S. Friscia, Director of Public Works wrote to PVSC giving the status of each item as of that date (the information is included in the following detailed report).

On February 20, 1974, Mr. Raymond Nesto, Manager of Division of Sewers in Newark, addressed the PVSC, requesting help in halting the pollutions of the Newark sewers. He was assured that PVSC, as it always had in the past, would continue to help in any way possible. On February 27, Mr. Lubetkin wrote to him confirming this and suggesting a conference, and suggesting that the City's legal department contact the PVSC legal department and arrange for such a conference.

On June 24, 1974, Mr. Lubetkin wrote to Mr. Zack for an up-to-date report on any progress achieved to eliminate the various Newark Storm Sewer pollutions. On August 23, Mr. Nesto wrote to PVSC stating that funds for television inspection had been requested. On August 26, Mr. Lubetkin wrote Mr. Nesto requesting a time schedule for the work. On September 3, Mr. Lubetkin again wrote requesting further information, and Mr. Nesto replied on September 6 that the Standard Tallow Company was under mandate by the Health Department to install facilities to eliminate grease discharges, and that the Norpak Corp. had been under litigation since 1972 to eliminate its septic tanks. He also stated that they are working towards the elimination of the problem of the various storm sewers.

On September 13, 1974, Chairman Bay wrote to Mayor Gibson on these matters, asking that he review them and requesting a decision as to what is to be done.

On January 16, 1975, Mr. Zack wrote to PVSC updating the Newark progress on each of the sewers involved. He stated that Newark was sorry it had not been able to complete the work more rapidly, however, due to limited funds, work had to be put off. He stated that it was Newark's intention to proceed in an expeditious fashion upon the availability of funds on or about April 1, 1975.

FMG000221

946020224

Violations - City of Newark (con't.)

The City of Newark had received a National Pollution Discharge Elimination System Permit from the USEPA on January 31, 1975. Among its outlets to the Passaic River were listed Blanchard-Lockwood Avenue Overflow, (I presume they mean the Blanchard Street storm sewer and the Lockwood Street storm sewer, which are really two separate sewers); Brown Avenue Overflow (Brown Street storm sewer); and Roanoke Avenue Overflow (Roanoke Avenue storm sewer).

The Permit required the City of Newark to cooperate with PVSC in its wet weather study. Newark is required by the Permit to submit an approvable monitoring plan for implementing a monitoring program and an abatement study for the overflows by July 31, 1975, and within six months of approval they must implement the program. By January 31, 1976, Newark must submit an Engineering Report which shall include a schedule for the elimination of all discharges of untreated wastewater.

When the Permit was in the preliminary form, PVSC requested that USEPA require Newark to keep PVSC informed with copies of the reports. This was not done at that time. On February 18, 1975, PVSC again requested of the USEPA that copies of monitoring and compliance reports be sent to the PVSC. On June 25, 1975, the USEPA revised Newark's NPDES Permit to require Newark to send copies of their self-monitoring reports to PVSC.

On March 27, 1975, Mr. Zack, Director of Engineering of Newark, sent the City's first report to the USEPA listing some industries located in Newark, their flows, and the sewer ordinances Newark has to control such discharges.

The only work done during 1976 was on the Meadowbrook Storm Sewer.

The following was the status as of the end of 1976:

Blanchard Street Storm Sewer - The discharge from this sewer contained oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor and will have to be attempted again at a later date. At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged from this sewer to the river, with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107 mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

Violations - City of Newark - Blanchard Street Storm Sewer (con't.)

The October 18 report recommended the relaying of 1300 feet of sewer from the bend in the road to the Passaic River in Blanchard Street. Plans and sepcifications were being prepared and the estimated cost of the work was $250,000.00. If the project could be funded by mid-December the work would be completed by June 1, 1973. The project was not funded.

As of the end of July 1973, Mr. Zack reported that plans, contracts and specifications had been prepared and the Division of Sewers was waiting the approval of a Bonding Ordinance by the City Council to provide funds for the project.

The City spent the latter part of 1973 rodding, dragging and jetting the sewer lines for cleaning. In the February 19, 1974 letter, Newark reported that the source of the pollution had been determined to be the effluent from the Standard Tallow Company. They also reported that they had served notice on Standard Tallow Company to cease and desist.

During 1975, Newark had continued to monitor the effluent from this sewer in an effort to determine where interconnections exist that introduce pollutants into the sewer. In addition, the proposed 1975 capital budget carries funds to conduct a more detailed cleaning of the sewer and a TV inspection and monitoring program. As each source of pollution was located, the connection will be removed and/or sealed as is determined by the Division of Sewers in the best interest of the City.

Nothing further was done in 1976.

Brown Street Storm Sewer- Previously, the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution was abated since no dry weather flow came from this sewer. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since samples taken December 14, 1971, and January 25, 1972 showed high C.O.D., turbidity, and were positive to a H_2S test.

The June 8 report recommended a relining of this sewer, if feasible. Unfortunately, an inspection made after the report was written revealed a pile had been driven through this sewer. This pile had been driven in 1964, but according to Sherwin- Williams, the break area was boxed with concrete around the pile to give the sewer the same volume outflow. Although the area of the pile may not be the source of the polluting infiltration, it makes it difficult to reline the sewer. The polluting material, a "still bottom" was probably being pumped into the ground from some nearby industry, and the City of Newark's representatives said they were trying to locate the source.

FMG000223

Violations - City of Newark- Brown Street Storm Sewer (con't.)

The October 18 report stated they were still studying the feasibility of relining, and that they expected their analysis to be completed within thirty days.

Mr. Zack reported that relining was not feasible. He reported that the plan as of the end of 1972 was to seal and abandon this sewer and relay a new 12" storm line as a substitute.

As of the end of July 1973, Mr. Zack reported that arrangements are in process for a TV camera inspection to determine the condition of the line, to be followed by the necessary remedial action.

Monies had been requested, but not appropriated as expected, in the City's 1974 operating budget to clean this sewer and conduct a detailed television survey. It was anticipated that this would have been completed by the end of March 1974. Following this Mr. Friscia stated that illegal connections, if any, would be terminated, and areas of seepage, if existing, would be pressure grouted. Nothing further was done during 1975 or 1976.

Lockwood Street Storm Sewer- Mr. R. Altiero , Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue, was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of the Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13, 1971 conference by representatives of Newark, that part of this sewer was failing and a consultant would have to be hired for recommendations.

The June 8 report again recommended a visual inspection and manhole to manhole survey be made in order to determine and seal illegal connections. In Mr. Zack's memo of June 6, he stated that it was anticipated this could be accomplished within a two month period.

The October 18 report stated they were listing all industries in the area and work was quite involved.

As of the end of July 1973, Mr. Zack reported that visual inspection of the line continued in order to determine and seal illegal connections and report the condition of the sewer line. He stated progress had been limited due to manpower available, but it was anticipated the survey would be completed in the near future.

The February 19, 1974 report stated that heavy deposits of silt and mud materials and gas in the line had prohibited any form of remedial action by the City's forces.

Nothing further was done in 1975 or 1976.

FMG000224

Violations - City of Newark (con't.)

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several pollution connections to this sewer in Belleville were eliminated.

The June 8 report recommended a visual inspection and a flushing of this sewer. It was estimated a two month period was needed.

The October 18 report stated that detailed monitoring and surveillance was required, and cited the use of this sewer by Belleville as a possible source of pollution. They expected to isolate the responsibility for the pollution within two months time. Samples taken by Mr. R. Altiero indicated that a significant pollution was coming from the Belleville area.

As of the end of July 1973, Mr. Zack reported that Newark had eliminated all complaints for which they were responsible, and it was believed that Belleville was now the source of pollution. Mr. Zack also reported that Belleville is of the opinion that Bloomfield was in turn responsible for the pollution. Efforts by Newark to have the matter resolved had not been successful and had been referred to Newark's legal department.

The August 23, 1974 report from Newark again stated that there are no violations within Newark and that requests had been made of Newark's Legal Department to institute proceedings against the Town of Belleville. Mr. Lubetkin, in his letter to Newark dated August 26, 1974, pointed out that this statement had been also made previously (February 19, 1974) and requested further information as to the status of the legal action.

In Mr. Zack's letter of January 16, 1975, he repeated that the matter had been referred to the City's Law Department.

Mr. Soldo, Superintendent of Public Works of Belleville, denied the City of Newark's representatives' statement that the pollution of the Meadowbrook Storm Sewer was coming from Bloomfield or Belleville. Mr. Soldo stated that it had been the practice of Newark, Bloomfield and Belleville to make joint inspections of the sewer (the last was 1973). He said that since East Orange, Bloomfield, Belleville and Newark, by agreement, were responsible for the maintenance of the Meadowbrook Storm Sewer, it would be necessary for all to take active participation to correct the problem. He suggested a meeting of all concerned to inspect the entire length of the sewer. PVSC thought this was a good idea and supported such a conference.

FMG000225

046020228

Violations - City of Newark - Meadowbrook Storm Sewer (con't.)

On August 13, Messrs. Soldo (Belleville), Marks (Newark), Cuccinello, Dondero, and D'Ascensio (PVSC), as well as line crews from Belleville and Newark, conducted a field survey of the sewer. All five samples taken were polluting. On August 15, Mr. D'Ascensio wrote to Messrs. Marks and Soldo stating that due to the complexity of the problem, a conference would be necessary to plan a precise study in order to pinpoint responsibility.

The conference was held at the PVSC office on September 9, attended by representatives of the Town of Belleville, City of Newark, Elson T. Killam Consulting Engineers, and PVSC. At the meeting it was decided to invite the Town of Bloomfield and City of East Orange to future meetings; to have each municipality furnish a drawing of the sewer within its boundary; and to attempt to locate the original construction drawings.

On September 10, Mr. D'Ascensio wrote to Mr. Sol Friedman, Bloomfield Town Engineer, and Mr. D'Attilio of the East Orange Sewer Department, furnishing them with planimetric maps, asking them to fill in the location of the Meadowbrook Storm Sewer, and inviting them to future meetings. On September 12, Mr. D'Ascensio wrote to Mr. Paul Krarup of the Essex County Park Commission requesting a print of the Meadowbrook Storm Sewer where it passed through Branch Brook Park.

All of the maps required to complete the survey were received by PVSC during October and are being compiled.

While compiling the various maps, certain discrepancies were discovered in the location and dimensions of some of the lines in Newark, East Orange, and Belleville. Additional data was gathered and a meeting was scheduled for December 17, 1975 with representatives of the four municipalities to review and determine if the maps are correct and also to plan sampling in order to localize the source of the pollution.

At the conference additional discrepancies were found. It was decided that the PVSC and City of East Orange would begin sampling at five locations in East Orange, but adverse weather forced a postponement to 1976.

These manholes were sampled on January 6, 1976, with only one (Leslie Street) showing a pollution, and this was not large enough to account for the total pollution of the Meadowbrook Storm Sewer. A conference was held January 9 with representatives of East Orange, and it was decided that the results of the samples were inconclusive and at least two additional sets of samples would be taken.

A new set of samples were taken on March 30, 1976 and one (Sussex Ave. at Sussex Mall) showed a very high fecal coliform count and the situation was investigated.

FMG000226

946020229

Violations - City of Newark - Meadowbrook Storm Sewer (con't.)

The investigation in April disclosed that this particular sample was taken from a sanitary sewer not a separate storm sewer line feeding the Meadowbrook Sewer. Thus the City of East Orange was eliminated as a source of the sanitary pollution of the Meadowbrook Storm Sewer.

During this investigation, the City of Newark uncovered a source of pollution into the Meadowbrook Storm Sewer at the intersection of North 13th St. and Sixth Avenue. On April 6 Mr. Valente and Mr. Benz of the Newark Engineering Department,while tracing back a dry weather flow,discovered a break in the upper part of a 10" sanitary lateral in front of home #375 Sixth Avenue, Newark, which ran through the storm sewer trunk into the sanitary sewer on the opposite side of the storm sewer.

Sanitary sewage was overflowing from the break in the lateral into the Sixth Avenue storm sewer thence into the Meadowbrook Storm Sewer on North 13th St. An obstruction in the sanitary sewer was found which caused the sewage to back up and overflow into the storm sewer from this break. When the obstruction was removed, on April 9, the sewage level lowered and the overflow ceased. The area was checked on three subsequent occasions by Mr. Valente and there was no overflow. The break in the line was repaired by the Newark Sewer Department on May 27, 1976.

An overflow connection from the 21" Newark sanitary line to the Meadowbrook Storm Sewer at the intersection of North 8th Street and Honiss Street was confirmed. However, no dry weather overflows were detected in May.

Since the City of East Orange had been eliminated as the source of the sanitary pollution, it was necessary to begin surveying the Town of Bloomfield. Mr. D'Ascensio wrote to Mr. Sol Friedman, Bloomfield Town Engineer, on May 13 and requested a conference to review plans for the survey. Mr. Friedman called Mr. D'Ascensio on May 14 and stated that the Town of Bloomfield could conduct a field survey without the need of a conference.

The survey was conducted on June 3 but since it was desirable to confirm the results, a second survey was conducted on June 9. The results of both surveys did confirm that sanitary pollution originated in Bloomfield, particularly in the Edison St. Alva St. area. This information was sent to Mr. Friedman on June 15 together with a request for an abatement schedule.

On July 2, 1976, Mr. Friedman replied wherein he agreed to meet with Inspectors' Cordasco and Fiore. Mr. Cordasco reported that he met with Mr. Friedman on July 29, 1976 and informed him that sewage was leaking into the storm sewer at Edison and Alva St., Bloomfield.

FMG000227

946020230

Violation - City of Newark, Meadowbrook Storm Sewer (con't.)

When nothing further was heard Mr. D'Ascensio again wrote to Mr. Friedman on August 10 and requested an abatement schedule. Mr. Friedman replied on August 16 and stated that investigative steps would be taken by the Health Department and Maintenance Division to locate the source of pollution.

When nothing further was heard, Mr. D'Ascensio wrote to Mr. Friedman on October 5 and requested a status report. On October 12 Mr. Friedman replied that the investigation was still underway.

Since the pollution originating in Bloomfield was only a small part of the total, a survey was conducted at seven locations in the Newark, Belleville area on November 18, 1976. The results were inconclusive and the survey was repeated on December 8. The results from both indicated that the level of the pollution was much less than had been measured in the past.

Five additional samples confirmed that the level of pollution was reduced, but in order to determine if this is a true reduction or the result of holiday plant shutdowns, which resulted in lower flows and, therefore, lower levels of pollution, the survey will be repeated in January, 1977.

Roanoke Avenue Storm Sewer - Industrial waste continued to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer.

On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer, to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates had been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and Avenue P. In a letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that work was awarded to Condrin Construction Company, and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin, began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December. On December 9, at approximately 9:30 A.M., the General Sewer Cleaning Co. was preparing to put a TV camera into the sewer when an explosion occurred, injuring three men. The explosion was located in the manhole of the Pitt-Consul Company property. Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City, with analyses performed by Edel Laboratories before allowing anyone to enter the

Violations - City of Newark - Roanoke Avenue Storm Sewer (con't.)

sewer. TV inspection was completed January 10, 1972, and a 10" connection was found west of Doremus Avenue on Pitt-Consul property with a highly polluting discharge (C.O.D. 2662 mg/l). On January 24, samples taken by Inspector McLaughlin showed explosive vapors in this sewer. Mr. Altiero was informed immediately and Mr. Lubetkin sent a follow-up letter to Mr. S. Friscia, Director of the Department of Public Works.

The June 8 report stated that the solution would be to relay approximately 1,200 feet of 54" pipe from Doremus Avenue to Avenue P. No time table was given, but they felt this work could not be done until 1973.

The October 18 report repeated that the solution would be to relay 1,200 feet of this line.

As of the end of July 1973, Mr. Zack reported that plans and specifications were being prepared for the replacement of approximately 1300 feet of 54" sewer from Doremus Avenue to Avenue P including the preparation of legislation for a bonding ordinance to provide the necessary funds.

Mr. Friscia reported that the City's 1974 Budget included an appropriation to purchase essential safety and testing equipment to permit inspection since explosive vapors are in this line. He stated they wished to make an inspection to confirm proposed construction as being the necessary way to halt the pollution.

Mr. Zack, in his letter of January 16, 1975, stated the work had not been done due to lack of funding, but stated, as with the other sewers, funds had been placed in the proposed 1975 capital budget for the above work. He further stated that these funds should be available on or about April of 1975. However, the work was not done in 1975, nor in 1976.

WEEKLY RESUME

10/23/78 - 10/27/78

10/24/78 Cordasco SHERWIN WILLIAMS PAINT CO. Mister Ave. Newark	(9/21/78) Poor housekeeping - clean up still in progress
10/25/78 Perrapato/Parr SPECIAL POPE CHEMICAL CO. 33 6th Ave. Paterson	Encroachment - dumping debris on Passaic River bank property owned by this company
10/25/78 Tomaro SPECIAL ARROW PLASTICS 1-21 Mattimore St. Passaic	Made an investigation and reported to N.J. DEP in re: oil saturated earth at bank of Dundee Canal
10/26/78 Cordasco R. H. TRUCKING 184 Doremus Ave. Newark	(9/18/78) Poor housekeeping - clean up necessary. to date no improvements made
10/27/78 Perrapato/Parr ARMOUR FOOD CO. Ellison St. Paterson	Tie in to sanitary line should be completed by 10/27/78 = Will inspect and submit final report
10/27/78 Colello TOWN OF BLOOMFIELD Franklin St. Storm Sewer	On or about Nov. 13th will begin repairs on leaking 8" sanitary line on Molter Pl. near Orange St. which seeps into storm sewer that empties out into Franklin St. storm sewer
10/27/78 Parr/Perrapato BIOCRAFT LABS INC. Industrial Park Waldwick	Elimination - Last three samples taken non polluting
10/27/78 Fiore/De Marco CITY OF CLIFTON Athenia Storm Sewer	Sample survey taken - All 4 samples high in fecal coliform will continue to investigate source of pollution
10/27/78 Fiore/De Marco CITY OF CLIFTON Manhole west side I.T.T. property	Debris in manhole caused sewage to overflow into 3rd River
10/27/78 Parr Perrapato FAIRLAWN INDUSTRIES 20-21 Wagaraw Rd. Fair Lawn	High fecal coliform - source under investigation
10/27/78 Parr Perrapato BORO OF HAWTHORNE Lincoln St. Ditch	Made an investigation at Pam Chemical Corp., 1 Washington Ave. to determine source of pollution to ditch - Yard drains to be disconnected - Will dye test sanitary lines next week

Laguna
Dept. Econ
Devel

FMG000230

946020234

10/27/78 Fleming TOWN OF KEARNY Pennsylvania Ave. storm sewer	Last 300' of line still not jet sprayed - unit broken - Work scheduled for 10/30 or 10/31
10/27/78 Tomaro BORO OF LODI Millbank Brook	Samples taken 10/25/78 were analyzed as polluting by PVSC laboratory - Source of pollution (high fecal coliform) under investigation
10/27/78 Fleming TOWN OF LYNDHURST Lake Ave. Storm Sewer	Dye test will be made to check for leaks or breaks - scheduled for next low water period
10/27/78 Fleming TOWN OF LYNDHURST New York Ave. Storm Sewer	Same as above
10/27/78 Cordasco CITY OF NEWARK Blanchard, Brown, Lockwood, & Roanoke	Will report on finding of Consulting Engineers - as soon as receive
10/27/78 Colello CITY OF NEWARK Meadowbrook Storm Sewer	Violation of long standing-feaal coliform from this storm sewer into 2nd River
10/27/78 De Marco SPECIAL TOWN OF NUTLEY Municipal Garage	Sump Pump installed in still wells oil and water in ground pumped into 1,000 gallon tank - No oil in 3rd River
10/27/78 Colello CITY OF ORANGE Washington St. Storm Sewer	Work continues on lining the storm sewer to seal leaks or breaks
10/27/78 Tomaro CITY OF PASSAIC Madison St. Storm Sewer	High fecal coliform from this storm sewer into Weasel Brook - Nothing new to report
10/27/78 Tomaro Eliminated L. PUCILLO AND SONS, INC. Rt. 46 West Lodi	Connection made from floor drain in garage to sanitary sewer manhole. Inspector advised Pucillo all truck washing to be done inside garage - Will keep under observation
10/27/78 De Marco SPECIAL SECOND RIVER JOINT MEETING Old Mill Bridge Belleville	Samples taken 10/19/78 before Old Mill Bridge non polluting - after Old Mill Bridge polluting

FMG000231

946020235

10/27/78 Cordasco SUN CHEMICAL - ARKANSAS CHEMICAL Foundry St. Newark	City of Newark diversion chamber malfunctioning allowing polluting materials to enter storm sewer thence Passaic River
10/27/78 Sventy/Colello SPECIAL WIGWAM BROOK - LLOYDS BROOK Bloomfield - Orange	Discoloration noted - source of pollution not determined

FMG000232

946020236

Weekly Reserve
10/23/78 – 10/27/78

			(9/21/78)
10/24/78	Cordasco		Poor housekeeping clean-up still in progress
Sherwin Williams Paint Co. Lister Ave. Newark			
10/25/78	Perrapato Part	SPECIAL	Encroachment - dumping debris on Passaic River Dam [redacted] property owned by this company
Pope Chemical Co. 23 6th Ave. Paterson			
10/25/78	Tomaro	SPECIAL	Made an investigation & reported to NJDEP in re: oil saturated earth at bank of Dundee Canal
Arrow Plastics 1-21 Mattimore St. Passaic			
			(9/18/78)
10/26/78	Cordasco		Poor housekeeping - clean up necessary - to date no improvements made
K. H. Trucking 184 Rosemus Ave.			

FMG000233

946020237

10/27/78 Perrapato Parr

Armour Food Co.
Ellison St.
Paterson

Tie in to sanitary line should be completed by 10/27/78 - Will inspect & submit final report -

10/27/78 Colello

Town of Bloomfield
Franklin St. Storm Sewer

On or about Nov. 13th will begin repairs on leaking 8" sanitary line c Holter Pl near Orange St - which seeps into storm sewer that empties out into Franklin St. S.S.

10/27/78 Parr Perrapato

Biocraft Labs. Inc.
Industrial Park
Waldwick

Elimination -
Last three samples tak non-polluting -

10/27/78 Fiore De Marco

City of Clifton
Athenea Storm Sewer

Sample survey taken - All 4 samples high in fecal coliform - will continue to investig source of pollution -

Fiore De Marco

City of Clifton
manhole west side ITT property

Debris in manhole caused sewage to overflow into 3rd River -

FMG000234

946020238

10/27/78	Parr Perrapato	High fecal coliform - source under investigation
Fairlawn Industries 2021 Wagaraw Rd. Fair Lawn		
10/27/78	Parr Perrapato	Made an investigation at Pam Chemical Corp, Washington Ave to determine source of pollution to ditch - Yard drains & laquer dept. floor drains to be dis-connected - Will dye test sanitary lines next week -
Boro of Hawthorne Lincoln St. Ditch		
10/27/78	Fleming	Last 300' of line still not yet sprayed unit broken - Work scheduled for 10/30 or 10/31 -
Town of Kearny Pennsylvania Ave. S.S.		
10/27/78	Tomaro	
Boro of Lodi Millbank Brook		Samples taken 10/25/78 were analyzed as polluting by PVSC laboratory - Source of pollution (high fecal coliform) under investigation

FMC000235

946020239

10/24/78 Fleming

Town of Lyndhurst
Pike Ave Storm Sewer

Dye test will be made to check for leaks or breaks - scheduled for next low water period -

10/27/78 Fleming

Town of Lyndhurst
New York Ave Storm Sewer

Same as above

10/27/78 Cordasco

City of Newark
Blanchard - Brown - Lockwood - Hancke

Will report on pending of Consulting Engineers - as soon as received

10/27/78 Colello

City of Newark
Meadowbrook Storm Sewer

Violation of long standing - fecal coliform from this storm sewer into 2nd River -

10/27/78 DeMaio

Town of Nutley
Municipal Garage

SPECIAL

Sump pump installed in oil wells - oil & water in ground pumped into 1,000 gallon tank - No oil on

FM000236

946020240

10/27/78	Colello	Work continues on lining the storm sewer to seal leaks or break
City of Orange Washington St. Storm Sewer		
10/27/78	Tomaro	High fecal coliform from this storm sewer into Weasel Brook - Nothing new to report
City of Passaic Madison St. Storm Sewer		
10/27/78	Tomaro	Connection made from floor drain in garage to sanitary sewer manhole. Inspector advised Pucillo all truck washing to be done inside garage. Will keep under observation -
L. Pucillo & Sons, Inc. Rt 46 West Rock		
10/27/78	DeMarco SPECIAL	Samples taken 10/19/78 before Old Mill Bridge non-polluting after Old Mill Bridge polluting
Second River Joint Meeting Old Mill Bridge Belleville		

FMG000237

946020241

946020242

WEEKLY RESUME

11/27/78 - 12/1/78

11/30/78 Cordasco/Fleming CITY OF NEWARK Blanchard, Brown, Lockwood, & Roanoke Storm Sewers	City in conjunction with PVSC Industrial Dept. making investigations of chemical plants in Foundry St. area, in effort to determine source of pollution to storm sewer.
11/30/78 Perrapato/Parr PASSAIC VALLEY SEWERAGE COMM. Wood St. - Paterson	Violation/Elimination - Seepage from PVSC line into Passaic River - E. Moller notified.
12/1/78 Colello/Sventy TOWN OF BLOOMFIELD Franklin St. Storm Sewer	Approx.60' of 8" sanitary line replaced on Molter and Orange St. - job should be completed by 12/8/78.
12/1/78 Fiore/De Marco CITY OF CLIFTON Athenia Storm Sewer	City Manager will request funds to do TV scan of storm sewer to detect source of pollution and correct same.
12/1/78 De Marco/Fiore JOHN DUSENBERY CO., INC. 395 Allwood Rd. Clifton	Septic tank pumped out - Will continue to inspect for overflow.
12/1/78 Mc Laughlin/Tomaro BORO OF ELMWOOD PARK Fleischers Brook	Oily film visible on surface of brook - Source under investigation.
12/1/78 Parr/Perrapato FAIRLAWN INDUSTRIES 20-21 Wagaraw Rd. Fair Lawn	No sample taken this week due to inclement weather .
12/1/78 Fiore/De Marco GLOBE PRODUCTS 55 Webro Road Clifton	Garbage compactor drain unclogged - yard drain trenches pumped out to prevent spills of fruit and fruit juices from reaching storm drains thence Mc Donald Brook - Metal enclosure at loading dock, to contain spills will be installed by 12/20/78.
12/1/78 Parr/Perrapato BORO OF HAWTHORNE Lincoln St. Ditch	No samples taken this week due to inclement weather - Source of pollution under investigation.
12/1/78 Fleming/Cordasco TOWN OF KEARNY Pennsylvania Ave. Storm Sewer	Last section of line jet sprayed 11/22/78. Sample will be taken next low water period.
12/1/78 Mc Laughlin/Tomaro BORO OF LODI Millbank Brook	No samples taken last two weeks - Source of pollution under investigation.
12/1/78 Fleming/Cordasco TOWN OF LYNDHURST Lake Ave. Storm Sewer	No new progress has been made in effort to determine source of pollution to this storm sewer.

FMG000245

946020243

12/1/78 Fleming/Cordasco TOWN OF LYNDHURST New York Ave. Storm Sewer	Same as above
12/1/78 Parr MOLLY ANNS BROOK SPECIAL Haledon	Heavy rains caused holding pit at S. Braen Quarry to overflow - reached Brook - Haledon DPW notified - out of our jurisdiction.
12/1/78 Colello/Sventy CITY OF NEWARK Meadowbrook Storm Sewer	Violation of long standing = no action taken to eliminate source of pollution.
12/1/78 Cordasco/Fleming Called In CITY OF NEWARK Passaic River SPECIAL	Broken hydrant being repaired - muddy water from excavation being pumped into Passaic River
12/1/78 De Marco/Fiore TOWN OF NUTLEY Municipal Garage	Job completed - 7,500 gallon tank installed - still wells still in operation.
12/1/78 Colello/Sventy CITY OF ORANGE Washington St. Storm Sewer	Chlorination discontinued 11/14/78 as safety precaution-men working on storm sewer in vicinity of chlorine station - target date for comp - approx. one week - new internal collector sewer to be installed - bids will be accepted 12/27/78.
12/1/78 Tomaro/Mc Laughlin CITY OF PASSAIC Madison St. Storm	Inspectors met with J. Zangara Supt. DPW in re: lack of cooperation in elimination this pollution violation.
12/1/78 De Marco/Fiore SECOND RIVER JOINT MEETING Before & After Old Mill Bridge Belleville	Last samples taken 11/2/78 - analyzed by lab as non polluting - Investigation revealed no visible seepage during early part of month and only slight seepage noticeable in later part of month.

FMG000246

946020244

11/27/78 - 12/1/78

1/30/78 Cordasco Fleming

City of Newark
Blanchard, Brown, Lockwood &
Roanoke Storm Sewers -

City in conjunction with PVSC Industrial Dept. making investigation of chemical plants in Foundry St. area, in effort to determine source of pollution to storm sewer -

11/30/78 - Perrapato Parr
Passaic Valley Sewerage Comm
Wood St - Paterson -

Violation & Elimination

Seepage from PVSC line into Passaic River - E. Moller notified

2/1/78 Colello Sventy

Town of Bloomfield
Franklin St Storm Sewer

Approx 60' of 8" sanitary line replaced on Molter & Orange St. Job should be completed by 12/8/78.

~~[illegible]~~

~~pollution to the Franklin St. st[illegible]~~

2/1/78 Fiore DeMarco

City of Clifton
Athenia Storm Sewer

City Manager will request funds to do TV scan of storm sewer to detect source of pollution & correct same -

FMG000247

946020245

2/1/78 DeMarco
Fiore

John Dusenbery Co, Inc.
395 Allwood Rd
Clifton

Septic tank pumped out - will continue to inspect for overflow

2/1/78 McLaughlin
Tomaro

Boro of Elmwood Park
Fleischer Brook

Oily film visible on surface of brook. Source under investigation -

2/1/78 Pair
Perrapalo

Fairlawn Industries
20-21 Wagaraw Rd
Fair Lawn

No sample taken this week due to inclement weather -

FMG000248

946020246

12/1/78	Fleming Cordasco	Last section of line jet sprayed 11/22/78. Sample will be taken next low water period
Town of Kearny Pennsylvania Av. S.S.		
12/1/78	Fleming Cordasco	No new progress has been made in effort to determine source of pollution to this storm sewer
Town of Lyndhurst Lake Av Storm Sewer		
2/1/78	Fleming Cordasco	
Town of Lyndhurst New York Ave Storm Sewer		Same as above -

FMG000249

946020247

12/1/78 Fiore DeMarco

Globe Products
55 Webro Rd
Clifton

Garbage compactor drain unclogged - yard drain trenches pumped out to prevent spills of fruits - fruit juices from reaching storm drains thence McDonald Brook - Metal enclosure at loading dock, to contain spills will be installed by 12/20/78 -

2/1/78 Parr Perrapato

Boro of Hawthorne
Lincoln St Ditch

No samples taken this week due to inclement weather - Source of pollution under investigation

2/1/78 Fleming Cordasco
Kearny - here -

12/1/78 McLaughlin Tomaro

Boro of Lodi
Millbank Brook

No samples taken last two weeks - Source of pollution under investigation

Fleming
Town of Lyndhurst
Lake & NY Ave here -

FMG000250

946020248

12/1/78 Parr

Molly Anns Brook
Haledon

SPECIAL Heavy rains caused holding pit at S. Brain Quarry to overflow - reached Brook - Haledon DPW notified - Out of our jurisdiction -

2/1/78 Colello
Sventy

City of Newark
Meadowbrook Storm Sewer

Violation of long standing no action taken to eliminate source of pollution

2/1/78 Cordasco
Fleming

City of Newark
Passaic River

SPECIAL

Broken hydrant being repaired - muddy water from excavation being pumped into Passaic River -

FMG000251

946020249

12/1/78 DeMarco
Frore

SPECIAL

Town of Nutley
Municipal Garage

Job completed - 7,500 gallon tank installed - still wells still in operation

2/1/78 Colello
Sventy

City of Orange
Washington St. Storm Sewer

Chrolination discontinued 11/14/78 as safety precaution - men working on storm sewer in vicinity of chlorine station - target date for comp - approx one week - New internal collector sewer to be installed - bids will be accepted 12/27/78

2/1/78 Tomaro
McLaughlin

City of Passaic
Madison St. - Storm

Inspectors met with J. Zangara Supt. DPW in re lack of co-operation in elimination this pollution violation -

2/1/78 DeMarco
Frore

Second River Joint Meeting
Before & After Old Mill Bridge
Bellville

Last samples taken 11/2/78 - analyzed by lab. as non-polluting Investigation revealed no visible seepage during early part of month only slight seepage noticeable in later part of month

946020250

EMG000252

12/11/78 - 12/15/78

12/11/78 Mc Laughlin/Tomaro INTERSTATE DYEING & FINISHING CO., Inc. 35 8th St., Passaic	Violation Elimination - Floor drains coated with water proof sealer to prevent leakage into dirt cellar, thence Passaic River
12/11/78 Cordasco/Fleming CITY OF NEWARK Blanchard, Brown, Lockwood, & Roanoke Storm Sewers	No new action taken to abate these pollution violations - Chamber which is malfunctioning at Roanoke Ave. still not repaired
12/13/78 Perrapato/Parr SPECIAL GALAXIE CHEMICAL CO. 26 Piercy St. Paterson	Wash water from 5,000 gallon tank emptied into sewer. This created an extensive amount of suds, which overflowed from manhole into street - Did not reach storm drains
12/13/78 Cordasco/Fleming CITY OF NEWARK Roanoke Storm Sewer	Upon routine inspection of this storm sewer, Inspectors observed red color discharge, high in acid content - Traced to Arkansas and Sun Chem. Co. - Referred to Industrial Dept.
12/13/78 Tomaro/Mc Laughlin SUB STOP (Fast Food Establishment) 147 River Dr. Passaic	Violation Elimination - Employee dumped cooking oil into catch basin - catch basin cleaned out.
12/14/78 Tomaro/Mc Laughlin CITY OF PASSAIC Sanitary Line, Monroe St.	Violation Elimination - Blockage in sanitary line caused sewage to overflow into storm line, thence Weasel Brook. Blockage released
12/15/78 Colello/Sventy TOWN OF BLOOMFIELD Franklin St. Storm Sewer	Repairs to 8" sanitary line on Orange St. and Molter Pl. were completed on 12/5/78
12/15/78 Fiore/De Marco CITY OF CLIFTON Athenia Storm Sewer	Asst. Eng. R. Lorenz, will send PVSC a letter outlining steps that will be taken to repair broken sanitary line at Sergeant St. and Elm St.
12/15/78 Mc Laughlin/Tomaro BORO OF ELMWOOD PARK Fleischers Brook at Van Riper Ave.	Slight oily film visible on surface of brook - DPW made an investigation - source still undetermined
12/15/78 Fiore/De Marco GLOBE PRODUCTS 55 Webro Rd. Clifton	Metal enclosure for trailer truck delivery station will be installed by 12/20/78

FMG000256

946020252

12/15/78 Parr/Perrapato BORO OF HAWTHORNE Lincoln St. Ditch	Hawthorne DPW too busy to investigate source of this pollution - Will get to it as soon as possible.
12/15/78 Cordasco/Fleming CITY OF NEWARK Brown, Blanchard, Lockwood, & Roanoke	Survey being done of industries on Blanchard St. in effort to locate source of pollution. Mr. Benz will report any action being taken at Roanoke Ave.
12/15/78 Colello/Sventy CITY OF ORANGE Washington St. Storm Sewer	On Wed. 12/13/78 lining of storm sewer was completed - Chlorination was re-instated on that same date.
12/15/78 Parr SPECIAL WARREN BROS. CO. end of Blanten Ave. Prospect Park	Water containing rock dust being pumped into storm drain thence Molly Anns Brook

* * * * * *

* The below listed reports will be turned in on a monthly basis:

Millbank Brook - Lodi
Madison St. - Passaic
2nd River Joint Meeting - Belleville
Meadowbrook Storm Sewer - Newark
Lake Ave. Storm Sewer - Lyndhurst
New York Ave. Storm Sewer - Lyndhurst
Pennsylvania Ave. Storm Sewer - Kearny

FMG000257

Weekly Resume
12/11/78 - 12/15/78

Violation Elimination

2/11/78 McLaughlin
Tomaso

Floor drains coated wit
water proof sealer to
prevent leakage into dirt
cellar, thence Passaic River

Interstate Dyeing & Finishing Co, Inc.
35 8th St.
Passaic

2/11/78 Cordasco
Fleming

No new action taken to
abate these pollution violation
Chamber which is malfunctioning
at Roanoke Ave still not
repaired -

ity of Newark
Blanchard, Brown, Lockwood &
Roanoke Storm Sewers

2/13/78 Perrapato
Parr

SPECIAL

Wash water from 5,000 gallon tank
emptied into sewer. This created an extensive
amount of suds, which overflowed
from manhole into street - Did not
reach storm drains -

Galaxie Chemical, Co.
6 Piercy St.
Paterson

FMG000258

946020254

1/3/78	Cordasco Fleming	
ity of Newark Roanoke Ave S.S.		Upon routine inspection of this storm sewer, Inspectors observed red color discharge, high in acid content - Traced to Arkansas & Sun Chem Co - Referred to Industrial Dept.
2/13/78	Tomaro McLaughlin	Violation & Elimination
ub Stop (Fast Food Establishment) 47 River Dr. Passaic		Employee dumped cooking oil into catch basin - catch basin cleaned out -
2/14/78	Tomaro McLaughlin	Violation & Elimination
ity of Passaic Sanitary Line Monroe St.		Blockage in sanitary line caused sewage to overflow into storm line, thence Weasel Brook. Blockage released -
2/15/78	Colello Suenty	Repairs to 8" sanitary line on Orange St & Molter Pl. were completed on 12/5/78.
own of Bloomfield Franklin St. Storm Sewer		
2/15/78	Tivie DeMarco	Ass't Eng. R. Lorenz, will send PVSC a letter outlining steps that will be taken to repair broken sanitary line at Sergeant St & Elm St -
ity of Clifton Athenia Storm Sewer		

FMG000259

946020255

2/15/78 McLaughlin Tomaro

Boro of Elmwood Park
Fleischers Brook at Van Riper Ave

Slight oily film visible on surface of brook - DPW made an investigation - source still undetermined -

2/15/78 Fiore DeMarco

Globe Products
55 Weber Rd.
Clifton

Metal enclosure for trailer truck delivery station will be installed by 12/20/78 -

2/15/78 Parr Perrapato

Boro of Hawthorne
Lincoln St Ditch

Hawthorne DPW too busy to investigate source of this pollution - Will get to it as soon as possible.

/15/78 Cordasco Fleming

City of Newark
Brown, Blanchard, Lockwood & Roanoke

Survey being done of industries on Blanchard St in effort to locate source of pollution. Mr Benz will report any action being taken at Roanoke Ave

FMG000260

946020256

1/5/78 Colillo Sventy

On Wed. 12/13/78
lining of storm sewer was completed - Chlorination was re-instated on that same date -

City of Orange
Washington St. S.S.

2/15/78 Parr Special

Warren Bros. Co
nd of Planten Ave
Prospect Park

Water containing rock dust being pumped into storm drain thence Molly Anns Brook

The below listed reports will be turned in on a monthly basis -

Millbank Brook - Lodi
Madison St - Passaic
2nd River Joint Meeting - Belleville
Meadowbrook Storm Sewer - Newark
Lake Av Storm Sewer - Lyndhurst
New York Ave S.S. - Lyndhurst
Pennsylvania Ave SS - K[illegible]

FMG000261

946020257

946020258

WEEKLY RESUME

2/26/79 - 3/2/79

2/26/79 Mc Laughlin GARFIELD MANUFACTURING - Cupo Found 10 Midland Avenue Garfield	SPECIAL - Red colored liquid leaking from dumpster into driveway area and curbside - Cleaned up did not reach catch basin.
2/26/79 Mc Laughlin BORO OF LODI - over Flows Richmond St. Pumping Station Checked	SPECIAL - Due to heavy rains sewage overflow into Saddle River - Pump station out from 8:00 a.m. to 12:00 p.m.
2/27/79 Parr/Perrapato JOHN B. HARRIS CO. Called in 24 Ryle Avenue Paterson	SPECIAL - Complaint received of sanitary odors in building investigation made.
2/27/79 Mc Laughlin/~~Tomaro~~ (De Marco) INMONT CORP. — Cupo — 200 Gregg St. Lodi	Violation/Elimination - #4 oil spilled during delivery - light oily film from storm ditch into Millbank Brook - Clean up completed.
2/27/79 Mc Laughlin/De Marco SPROUT BROOK - Called in - Rochelle Park	SPECIAL - Report received of oil in brook, inspection made - no evidence of oil.
2/27/79 Cuccinello/Parr/ Perrapato WITCO CHEMICAL CO. L. Cuccinello Wood St. Paterson	Violation/Elimination - 8" main water line break - yard at this company flooded and contents washed into Passaic River - Repairs made.
2/28/79 De Marco/Fiore BELLEVILLE INDUSTRIAL COMPLEX ✓ 681 Main Street Belleville	SPECIAL - work on installation of new 8" steel sanitary line began 2/28/79 Will give final report when job completed.
2/28/79 Mc Laughlin CUSTOM OPTICS INC. ✓ 216 Midland Avenue Saddle Brook	SPECIAL - Filtering system still not in operation - Waiting for delivery of pumps.
2/28/79 Mc Laughlin BORO OF LODI ✓ Millbank Brook	Due to inclement weather only possible to take one sample during month of February - 2/15/79 after Gibraltar Chem. polluting - (high fecal coliform).
3/1/79 Cuccinello/Cordasco/ Mc Laughlin EASTERN LAMINATING IND. INC. Called in 75 Main Ave. Elmwood Park	Violation/Elimination - Used motor oil dumped into storm drain on this companys property reached Fleischers Brook - Owner claims employees service their cars over weekends.
3/1/79 Mc Laughlin MONSEY PRODUCTS ✓ 425 Central Ave. East Rutherford	Elimination - clean up of oil completed

FMG000273

946020259

3/2/79 Perrapato/Parr A & B CHEVRON SERVICENTER 1035 Main St. Paterson	SPECIAL - Unable to salvage or locate gasoline which was supposed to have infiltrated ground from leaking underground tank, since removal.
3/2/79 Fiore/De Marco BEECHAM INC. 65 Industrial South Clifton	Elimination - #2 oil mixed with water pumped from tank at this company, reached Hughes Lake, Passaic - Clean up completed.
3/2/79 Fiore/De Marco CITY OF CLIFTON Athenia Storm Sewer	As soon as weather permits, personnel from sewer dpt. will enter storm line in an effort to determine source of pollution to storm line.
3/2/79 Fiore/De Marco CITY OF CLIFTON 8" sanitary line crossing 3rd River at Automatic Data Proc.	Routine inspection revealed line leaking once again - temporary repairs to be made.
3/2/79 Fiore/De Marco Found CITY OF CLIFTON 8" sanitary overflow rear of Walter Kidde - Brighton Rd.	Blockage in 8" line - sanitary manhole overflowing into Mc Donalds Brook - Blockage released.
3/2/79 Fiore/De Marco JOHN DUSENBERY CO., INC. 395 Allwood Rd. Clifton	SPECIAL - This company suggests that PVSC write to the bank handling estate of property owner as to what progress made on installation of sanitary line.
3/2/79 Parr/Perrapato BORO OF FAIR LAWN North Chamber	SPECIAL - on 2/24/79 at 10:00 a.m. due t heavy rains - North Chamber to Passaic River opened - closed 3/2/79 10:00 a.m.
3/2/79 Parr/Perrapato BORO OF HAWTHORNE Overflow Chambers	SPECIAL - Due to heavy rains, line to Passaic River released 2/26/79 10:45 a.m. - closed 2/28/79 at 10:00 a.m.
3/2/79 Parr/Perrapato HENDERSON BROOK Fair Lawn	SPECIAL - Brook construction project from Parmalee Ave. to Raymond St. Fair Lawn Engineering Office - will notify PVSC when next phase of repairs started.
3/2/79 Fleming/Cordasco TOWN OF KEARNY Pennsylvania Ave. Storm Sewer	No new progress made to eliminate this pollution violation - Inspectors will meet with Mr. Goldberg, when weather permits in effort to eliminate problem.
3/2/79 Fleming/Cordascoq TOWN OF LYNDHURST Lake Ave. Storm Sewer	Week of 2/5/79 crew did flow isolation and checked for leaks or breaks in effort to locate source of pollution - Negative will continue investigation - when weather permits .

FMG000274

946020260

3/2/79 Fleming/Cordasco TOWN OF LYNDHURST New York Ave. Storm Sewer	Same as above (previous page)
3/2/79 Colello/Sventy MONTCLAIR SAVINGS BANK 562-570 Valley Rd. Montclair	Elimination - Intensive investigation made in effort to determine source of gasoline infiltrating sump pump pit - source undetermined - gasoline infiltrat: has ceased.
3/2/79 Cordasco/Fleming CITY OF NEWARK Blanchard, Brown, Lockwood, and Roanoke Storm Sewers	No new efforts made to abate these long standing pollution violations - No action taken to repair malfunctioning chamber at Roanoke Ave.
3/2/79 Perrapato/Parr CITY OF PATERSON Main and Grand Sts. found by inspector	SPECIAL - Sewer line collapsed - approx. 40 ft. of 18" clay pipe to be replaced.
3/2/79 (Parr/Perrapato) found POPE CHEMICAL CO. 33 6th Ave. Paterson	Violation/Elimination - While making a delivery a hose on truck ruptured Approx. 50 gallons of linseed oil spilled onto ground - reached storm line to Passaic River - cleaned up.
3/2/79 Mc Laughlin/Perrapato P. 27 8th St. J.L. Prescott Co. Sventy Passaic	Suds discharging from this comapny into Passaic River.
3/2/79 Colello/Sventy called WIGWAM BROOK Orange	SPECIAL - Report received of oil in brook, inspection made - no evidence of oil.

FMG000276

946020261

Weekly Resume
2/26/79 - 3/2/79

2/26/79 McLaughlin — SPECIAL Red colored liquid leakin from dumpster into driveway area - curbside - Cleaned up - did not reach catch basin

Garfield Manufacturing
10 Midland Ave.
Garfield

2/26/79 McLaughlin

SPECIAL

Boro of Lodi
Richmond Street Pumping Station

Due to heavy rains sewage overflow into Saddle River - Pump station out from 8:00 AM to 12:00 P.M.

2/27/79 Parr - Perrapato — SPECIAL Complaint received of sanitary odors in bld investigation made

John B. Harris Co
24 Ryle Ave
Paterson

2/27/79 McLaughlin-Tomaro — Violation + Elimination #4 oil spilled during deliv light oily film from storm sit into Millbank Brook - Clean completed

Inmont Corp
200 Gregg St
Lodi

FMG000276

946020262

2/27/79	McLaughlin-DeMaro	SPECIAL	Report received of oil in brook, inspection made no evidence of oil
Sprout Brook Rochelle Park			
2/27/79	Coccinello * Perrapato-Parr		Violation of Chemicals
Witco Chemical Co Wood St Paterson			8" main water line be yard at this company flooded & contents wash into Passaic River - Rep made
2/28/79	DeMaro-Fiore	SPECIAL	Work on installation of new 8" steel sanitary line began 2/28/79 - Will give final rep when job completed -
Belleville Industrial Complex 681 Main St. Belleville			
2/28/79	McLaughlin	SPECIAL	filtering system still not in operation - waiting delivery of pumps.
Custom Optics, Inc. 216 Midland Ave. Saddle Brook			
2/28/79	McLaughlin		Due to inclement weather only possible to take one sample during month of February 2-15-79 - after thaw resumed polluting (high fecal coliform)
Boro of Lodi Millbank Brook			

FMG000277

946020263

3/1/79 Cordasco-McLaughlin

Eastern Laminating Ind., Inc.
75 Main Ave
Elmwood Park

Violation & Eliminatio
Used motor oil dumpe
storm drains on this comp
reached Fleischers Brook -
property - Owner claims empl
service their cars (over) over week

3/1/79 McLaughlin

Monsey Products
425 Central Ave
East Rutherford

Elimination

Clean up of oil comp

3/2/79 Perrapato-Parr

A+B Chevron Servicenter
1035 Main St
Paterson

SPECIAL
Unable to salvage or
locate gasoline which was supposed to
have infiltrated ground from leaking underg
tank, since removed.

3/2/79 Fiore-DeMarco

Beecham Inc
65 Industrial South
Clifton

Elimination -
#2 oil mixed with water pumped f
tank at this company, reached Hughes Lake
Passaic - Clean up completed

3/2/79 Fiore-DeMarco

City of Clifton
Athenia Storm Sewer

As soon as weather
permits, personnel from sewer
dept will enter storm line in
an effort to determine sourc
of pollution to storm line.

3/2/79 Fiore-DeMarco

City of Clifton
8" sanitary line crossing 3rd River

Routine inspection reveals
line leaking once again
temporary repairs to be
made -

FMG000278

946020264

Area surrounding storm drain cleaned up - Employees will be directed to cease this Practice

946020265

3/2/79 Fiore-DeMarco

City of Clifton
8" sanitary overflow
rear of Walter Kidde
Brighton Rd -

Blockage in 8" line - sanitary manhole overflows into McDonalds Brook - Blockage released -

3/2/79 Fiore-DeMarco

SPECIAL

John Dusenberry Co. Inc
395 Allwood Rd.
Clifton

This company suggest that PVSC write to the bank handling estate of propert owner as to what progress made on installation of sanitary

3/2/79 Parr-Perrapato SPECIAL

Boro of Fair Lawn
North Chamber

On 2/24/79 at 10:0 due to heavy rains - North Chamb to Passaic River opened - clos 3/2/79 - 10:00 A.M.

3/2/79 Parr-Perrapato

SPECIAL

Boro of Hawthorne
Overflow Chambers

Due to heavy rains, line to Passa River released 2/26/ 10:45 AM. - Closed 2/28/79 at 10:00 A

3/2/79 Parr-Perrapato

SPECIAL

Henderson Brook
Fair Lawn

Brook construction prog for Parmalee Ave to Raymond St completed Fair Lawn Engineering will notify PVSC when next phase of repairs started

FMC000280

946020266

3/2/79	Fleming-Cordasco	
Town of Kearny Pennsylvania Ave Storm Sewer		No new progress made to eliminate this pollution violation. Inspectors will meet with Mr Goldberg when weather permits in effort to eliminate problem.
3/2/79	Fleming-Cordasco	
Town of Lyndhurst Lake Ave Storm Sewer		Week of 2/5/79 crew did flow isolation + checked for leaks or breaks in effort to locate source of pollution - Negative. Will continue investigation when weather permits.
3/2/79	Fleming-Cordasco	
Town of Lyndhurst New York Ave Storm Sewer		Same as above
3/2/79	Colello-Sventy	Elimination -
Montclair Savings Bank 562-570 Valley Rd. Montclair		Intensive investigation made in effort to determine source of gasoline infiltrating sump pump pit - Source undetermined - gasoline infilt has ceased -
3/2/79	Cordasco-Fleming	
City of Newark Blanchard, Brown, Lockwood + Roanoke Storm Sewers		No new efforts made to abate these long standing pollution violations - No action taken to repair malfunctioning crossbrace Roanoke Ave -

FMG000281

946020267

3/2/79 Perrapato - Parr SPECIAL

City of Paterson
Main & Grand Sts

Sewer line collapsed - approx 40 ft of 18" clay pi to be replaced -

3/2/79 Parr - Perrapato

Pope Chemical Co.
33 6th Ave
Paterson

Violation & Eliminat

While making a delivery hose on truck ruptured - H 50 gallons of linseed oi spilled onto ground - reache storm line to Passaic Riv cleaned-up

3/2/79 McLaughlin Perrapato

J. L. Prescott Co.
27 8th St.
Passaic -

Suds discharging from this company into Passaic River -

3/2/79 Colello - Sventy

SPECIAL

Wigwam Brook
Orange

Report received of oil in brook, inspection made - no evidence of oil

FMG000282

946020268

✓cards
✓ Board

WEEKLY RESUME

7/16/79 - 7/20/79

7/16/79 Mc Laughlin/Tomaro FAIRLAWN INDUSTRIES INC. Insp. 20-21 Wagaraw Road Fairlawn	Violation-Elimination - malfunction of check valve in pump house caused industrial waste to overflow, which entered Passaic River.
7/16/79 Tomaro/Mc Laughlin BORO OF HAWTHORNE Overflows	Due to heavy rains opened outlet to Passaic River - closed late afternoon - date.
7/16/79 Fleming JOHN DUNKERSLOOT TRUCKING CO. Called 37 2nd Street Clifton	Violation-Elimination - soap used to wash down equipment entered catch basin thence Weasel Brook.
7/16/79 Colello/Fiore NEWARK STORM SEWERS Lockwood St., Roanoke Ave., & Blanchard St.	Special - nothing being done at this time to abate these pollutions.
7/16/79 Colello/Fiore Town of Kearny Pennsylvania Ave. Storm Sewer	Special - same as above
7/17/79 Sventy/Cuccinello E C ELECTRO PLATING 125 Clark St. called Garfield	Special - investigated report of acid discharge - found no problem.
7/17/79 Mc Laughlin/Tomaro P.V.S.C. Boat Trip	Special - took out boat to try and locate source of pollution which caused fish kill.
7/18/79 Cordasco/Parr DURITE CIRCUITS INC. 141 River Road Nutley	Found sudsy discharge coming from this company again.
7/19/79 Mc Laughlin/Tomaro HOHOKUS BROOK Waldwick called	Special - report received of a fish kill - investigation revealed no evidence of any problem - sampled non polluting.
7/19/79 Sventy/Cupo BORO OF LODI Millbank Brook	Samples taken before and after show signs of pollution.
7/19/79 Sventy/Cuccinello P.V.S.C. Boat Trip	Special - took boat out or Passaic River to observe and check outlets observed several discharges.
7/20/79 Fleming/Perrapato CITY OF CLIFTON Athenia Storm	Sample taken found to be polluting high fecal coliform.

FMG000292

946020270

7/20/79 Cordasco/Parr D'ANNUZIO BROS. Plainfield Ave. Scotch Plains (Constr. at Washington St.) Insp. Follow up of	Violation-Elimination - heavy rains caused barricade of sandbags to collapse - causing sanitary water to flow to Wigwam Brook - sand bags were replaced - back to normal.
7/20/79 Sventy/Cuccinello Fleming GARDEN ST. PAPER 950 River Rd. Garfield Insp.	Violation-Elimination - while pumping water from oil storage tank, small amount of oil mixed with water reached storm line - oil cleaned up - boom placed at outlet.
7/20/79 Sventy/Cuccinello TOWN OF GARFIELD Schroeders Brook	Sample taken was analyzed as polluting
7/20/79 Fleming/Sventy/Cuccinello HEWITT ROBBINS 270 Passaic Ave. Passaic Called	Violation-Elimination - received call of red in Mc Donald Brook - company pumped out pit in yard and also put red dye (vegetable) in water - ordered this practice stopped.
7/20/79 Sventy/Cuccinello TOWN OF LYNDHURST Lake Ave. Storm Sewer	Town waiting for results of survey by Killam Assoc. for P.V.S.C. - expect corrections to be made when results are known.
7/20/79 Sventy/Cuccinello TOWN OF LYNDHURST New York Ave. Storm Sewer	Source of pollution under investigation.
7/20/79 Fiore/Colello NATIONAL FUEL OIL CO. Passaic Ave. East Newark Follow up	Oil is still leaking into Passaic River - measures are being taken to contain oil and clean up.
7/20/79 Fleming/Perrapato CITY OF PASSAIC Madison St. Storm Sewer	Sample polluting - high fecal coliform.
7/20/79 Sventy/Cuccinello BORO OF RUTHERFORD Carlton Hill Storm	Sampled outlet - analyzed as polluting, fecal coliform.
7/21/79 Cordasco/Parr CITY OF NEWARK Meadowbrook Storm	No action has been taken at this time to correct problem.
7/23/79 Fleming/Perrapato LYNDHURST Town of Lake Ave. Storm Called	Received complaint of greenish - blue discharge into Passaic River - took sample which was found to be polluting.
7/20/79 Fiore/Colello CITY OF NEWARK Delavan Ave. Storm Sewer Called	Received call re: discoloration in Passaic River - continued page.

FMG00293

City of Newark Delavan Ave. continued	investigation revealed combination sewer clogged and overflowing - city hired Robinson Pipe Cleaning company to clean out line. also made investigation of fish kill which is related to this sewer.
7/20/79 Fleming/Sventy/Cupo/ Cuccinello HERCULES CHEMICAL 111 South St. Passaic called	Violation-Elimination - call of oil in Passaic River was investigated - traced to this company - spill occurred in yard, near yrd. drain - yard area cleaned up.

FMG000294

946020272

Weekly Resume
7-16- 7-20-79

7-16 McLaughlin-Tomaro Fairlawn Ind. Inc. 20-21 Wagaraw Rd. Fairlawn	V.E. - Malfunction of check valve in pump house caused industrial waste to overflow. - which entered Passaic River
7-16 Tomaro-McLaughlin Boro of Hawthorne Crossing	Due to heavy rains opened outlet to Passaic River - Closed late afternoon date -
Elmiro 7-16 John Dinkersloot Trucking Co. 37 2nd St. Clifton	V.E. - Soap used to wash down equipment entered catch basin there Weasel Birds
7-16 Cobello-Sire Newark Storm Sewers Lockwood St, Roosevelt Ave., Blanchard St.	Sp. - Nothing being done at this time to abate the problem

FMG000295

946020273

7-16 Colello - Diore Pennsylvania Ave. Storm, Kearny	Sp. - ~~Same~~ Same as above
7-17 Sventy - Cuccinello E-C Electro Plating 125 Clark St. Garfield	Sp. - Investigated report of acid discharge - found no irregularities
7-17 McLaughlin - Tomaro PUSC Boat Trip	Sp. Took out boat to try & locate source of pollution which caused fish kill -
7-18 Cordasco - Parr Durite Circuits Inc. 141 River Rd. Nutley	Found sudsy discharge coming from this company again
7-19 McLaughlin - Tomaro Hohokus Br. - Waldwick	Sp. - Report received of a fish kill - Investigation revealed no evidence of any problem - Sampled - non pollution

FMG000296

946020274

7-19 Sverty - Cupo Boro of Lodi Millbrook brook	Samples taken before & after - show signs of pollution
7-19 Sverty - Cecinello PVSC boat trip	S.P. - Patrolled Passaic River to observe and outlets which were missing - several discharges were noted
7-20 Sleming - Perrapato City of Clifton Atlantic Storm	Sample taken found to be polluting S.F.C.
7-20 Cordasco - Barr D'Annunzio Bros. Plainfield Ave. Scotch Plains	V.E. - Heavy rains caused barricade of sandbags to collapse - causing sanitary water to flow to Wigwam Br. - Sand bags rep laced - back to normal

946020275

FMG000297

7-20 Sverty - Cuccinello - & Jenkins Garden St. Paper 950 River Rd. Garfield	VE - While pumping water from oil storage Tank some part of oil mixed with water reached storm line - ~~boom was placed - sand was spread to absorb~~ oil cleaned up - boom placed at outlet -
1-20 Sverty - Cuccinello Town of Garfield Schroeders Brook	Sample taken was analyzed as polluting -
7-20 Fleming - Sverty - Cuccinello & Nuitt Robbins 270 Passaic Ave. Passaic	VE - received call of red in McDonald Br. - Co. pumped out pit in yard & also put red reg. dye in water - This practice was stopped

FMG000298

7-20 Sverty - Cuccinello Town of Lyndhurst Lake Ave. S.S.	Town waiting for results of survey by Killam Assoc. for PVSC. Expect corrections to be made when results are known
7-20 Sverty - Cuccinello Town of Lyndhurst N.J. Ave. SS	Source of pollution under investigation
7-20 Dore - Colello National Fuel Oil Co. Passaic Ave. E. Newark	Oil is still leaking into Passaic River - ~~Boom was placed to contain oil~~ Measures are being taken to contain oil & clean up.
7-20 Fleming - Ferrapato City of Passaic Madison St. SS	Sample polluting, H.F.C.

FMG000299

Working - [illegible]
has been done
to correct problem

7-20 Sventy - Cuccinello Boro of Rutherford Carlton Hill S.S.	Sampled outlet - analyzed as poll. - FC
7-21 Cordasco - Parr City of Newark Meadowbrook SS	No action has been taken at this time to correct problem
7-23 Fleming - Perrapato Lyndhurst Town of Lake Ave. SS	Rec. complaint of greenish blue disch. into Passaic River - Took sample which was found to be poll.
7-20 Fiore - Colello City of Newark Delavan Ave.	Rec. call re: discolor in Passaic River - investigation revealed combination sewer clogged & overflowing

FMG000300

946020278

also made investigation of fish kill which is related to ~~above~~ above Sewer City hired Robin Pipe cleaning comp. to clean line

7-20 Fleming - ~~Bo~~ Sventy, Cupo, Cuccinello Hercules Chem. 111 South St. Passaic

VE - rec. call of oil in P.R. by Upon Bridge Tender. Traced to this company - ~~B~~ spill occurred in yard, near yard drain - area completely cleaned

FMG000301

946020279

946020280

WEEKLY RESUME

10/15/79 to 10/19/79

10/12 Cuccinello/Colello & Fiore C.S. OSBORNE CO. 125 Jersey Street Harrison	Special - As per request by Commissioner Cifelli, an investigation of this company was conducted to observe the number of outlets and to check flow or discharge - (report not enclosed - forwarded to A. Goldberg earlier)
10/19 Cordasco/Parr TOWN OF BELLEVILLE Chestnut St. Storm	No samples taken this week - will continue to investigate pollution.
10/19 Fleming/Perrapato CITY OF CLIFTON Athenia Storm	Pollution still present at this location - nothing new being done by city.
10/19 Fleming/Perrapato CITY OF CLIFTON 8" Sanitary Line crossing 3rd River at Auto Data Proc.	Leaks still exists in line - city plans to move line and connect at another location - no date has been set as of yet.
10/19 Fiore/Colello TOWN OF KEARNY Pennsylvania Ave.	Problem still exists as this location.
10/19 Sventy/Cuccinello TOWN OF LYNDHURST Lake Ave. Storm Called	Violation-Elimination - resident flushed car radiator contents flowed to street catch basin thence Passaic River
10/19 Sventy/Cuccinello TOWN OF LYNDHURST Lake Ave. Storm	Fecal coliform present in samples.
10/19 Sventy TOWN OF LYNDHURST New York Ave. storm at Livingston	Same as above
10/19 Cordasco/Parr TOWN OF MONTCLAIR Catch Basin at 729 Valley Rd.	Violation-Elimination - necessary repairs made to sanitary pipe.
10/19 Fiore/Colello CITY OF NEWARK Blanchard, Lockwood & Roanoke Storm Sewers	Samples taken continue to show signs of pollution.
10/19 Cordasco/Parr CITY OF NEWARK Meadowbrook Storm outlet	Sample analyzed as polluting.

FMG000302

946020281

10/19 Cordasco/Parr CITY OF ORANGE Washington St. outlet	Construction of 24" sanitary line almost complete
10/19 Fleming/Perrapato CITY OF PASSAIC Madison St. Storm	Samples taken analyzed as high fecal coliform.
10/19 Fleming/Perrapato FRAPUL CONSTRUCTION CO. called 124 Essex St. Rochelle Park	Violation-Elimination - while paving highway - materials used went into open storm drains thence Pearl Brook.
10/19 Fleming/Perrapato PANTASOTE CO. 26 Jefferson St. Passaic	Violation-Elimination - replacement of 8" sanitary line was completed.
10/19 Fleming/Perrapato CITY OF PASSAIC Speer Village outlet	Last sample taken polluting.

FMG000303

Weekly Resume - Board
10/15/79 to 10/19/79

10-12 Cuccinello, Colello, & Fiore
C.S. Osborne Co.
125 Jersey St.
Harrison

Special - ~~an investigation of this company was conducted to~~ As per request by Com. ~~[illegible]~~ Cifelli, an investigation of this company was conducted to observe ~~[illegible]~~ the no. of outlets & to check flow or discharge - A. Goldberg ~~received report~~ earlier -

report not enclosed / Forwarded to -

10-19 Cordasco-Parr
Town of Belleville
Chestnut St. Storm

No samples taken this week - will continue to investigate pollution.

FMG000304

946020283

10-19 Fleming - Ferrapato City of Clifton Athenia Storm	pollution still present at this location - Nothing new being done by City.
10-19 Fleming - Ferrapato City of Clifton 8" Sanitary line Crossing 3rd River at Automatic Data, Proc.	Leak still exists fix line - city plans to move line & correct at another loc., no date has been set as of yet
10-19 Fiore - Colello Town of Kearny Pennsylvania Ave.	problem still exists at this loc.
10-19 Gretty - Cucciello Town of Lyndhurst Lake Ave. St. Sewer	Called V.E. Resident flushed car radiator contents flowed to street catch

FMG000305

basin thence
Passaic River
(which was the
cause of orange
discharge)

10-19 Sverty - Cucinello
Town of Lyndhurst ✓
Lake Ave. S.S.
Fecal coliform
present in
samples

10-19 Sverty
Town of Lyndhurst
N.Y. Ave. Storm at
Livingston
✓
same as
above

10-19 Cordasco - Paw
Town of Montclair
Montclair
Catch basin at
729 Valley Rd.
✓
V.E. - necessary
repairs made
to sanitary pipe

10/19 Dore - Colello
City of Newark
Blanchard, Lockwood
& Roanoke Storm
Samples taken
continue to
show signs
of pollution

FMG000306

946020285

10-19 Cordasco-Parr
City of Newark
Meadowbrook Storm
outlet

sample analyzed
as polluting -

10-19 Cordasco-Parr
City of Orange
Washington St. outlet

Constr. of
24" sanitary
line almost
completed

10-19 Fleming-Perrapato
City of Passaic
Madison St.

Samples taken
analyzed as
high fecal
coliform

10-19 Fleming-Perrapato
Frapul Constr. Co.
124 Essex St.
Rochelle Park

V.E. While
Paving highway
materials used
went into open
storm drains -
Thence Pearl
Br. -

called

FMG000307

946020286

10-19 Flem. & Perrap V.E. replacement
Pantasote Co / of 8" sanitary
26 Jefferson St. / line was
Passaic completed

10-19 Fleming - Perrapato Last sample
City of Passaic / taken polluting
Speer Village
outlet

FMG000308

946020287

946020288

WEEKLY RESUME

11/26/79 to 11/30/79

11/30 Cordasco/Parr TOWN OF BELLEVILLE Chestnut St. outlet	No samples taken this week - will continue to investigate.
11/30 Sventy/Cuccinello CBS TOYS Paul Kohner Dr. Elmwood Park Monthly	Oily material continues to seep through filter fence - company seeking solution to problem.
11/30 Fleming/Perrapato CITY OF CLIFTON Athenia Storm	City to conduct survey with help of P.V.S.C. River Inspection Dept. in order to locate source of pollution problem.
11/30 Fleming/Perrapato CITY OF CLIFTON 8" Sanitary Line Crossing 3rd River at A.D.P.	Work to correct problem to begin on 12/3/79.
11/30 Sventy/Cuccinello CURTISS WRIGHT Passaic St. Wood Ridge Monthly	Boom and pads maintained - source of oil undetermined - brook appears clear.
11/30 Tomaro/Mc Laughlin BORO OF FAIR LAWN North Chamber	Special - due to heavy rains chamber opened - closed on following day.
11/30 Sventy/Cuccinello CITY OF GARFIELD Schroeders Brook	Samples taken analyzed as non polluting
11/30 Sventy IMPERIAL ELECTRO PLATING 52 Park Ave. Lyndhurst Monthly	No corrective action has been taken - pollution still exists - recommend our legal dept. to intercede.
11/30 Sventy/Cuccinello BORO OF LODI Millbank Brook at Saddle River	Sanitary line to be checked for any leaks or breaks.
11/30 Sventy/Cuccinello BORO OF LODI Millbank Br. before - after Gibraltar Chemical and Plastics	Dye tests conducted to locate source - inconclusive - sample taken analyzed as high fecal coliform.
11/30 Sventy/Cuccinello BORO OF LODI 12" Overflow at Hendricks St. Pump Station Monthly	Monies to correct problem are a problem at present time.

FMG000316

946020289

11/30 Sventy/Cuccinello TOWN OF LYNDHURST Lake Ave. storm	Efforts have been made to locate source of pollution - but to no avail
11/30 Sventy/Cuccinello TOWN OF LYNDHURST New York Ave. storm	Source of pollution under investigation - survey being made by E. T. Killam Co.
11/30 Fiore/Colello MONSANTO Pennsylvania Ave. Kearny	Ortho phosphate still evident in samples.
11/30 Fiore/Colello NATIONAL FUEL OIL Passaic Ave. Newark	Sheen on surface of river still visible.
11/30 Fiore/Kolello CITY OF NEWARK Blanchard, Lockwood, & Roanoke Storm Sewers	Samples taken found to be polluting.
11/30 Fiore/Colello NEWARK HOUSING AUTHORITY 535 Ave. P Newark (drums of contaminated material)	Special - 55 gallon drums carted off property - remaining contaminated drums on property of N.J. Turnpike must be removed.
11/30 Cordasco/Parr CITY OF NEWARK Meadowbrook Storm outlet	Status quo
11/30 Cordasco/Parr CITY OF ORANGE Washington St. Storm	Sample taken analyzed as non polluting,
11/30 Fleming/Perrapato CITY OF PASSAIC Madison St. Storm	Status quo
11/30 Fleming/Perrapato CITY OF PASSAIC Speer Village	Unable to sample this week,too high waters covering outlet.
11/30 Fleming/Perrapato CITY OF PASSAIC Oak St. & Paulison Ave. called	Special - sanitary overflow occurred, DPW notified - line cleared.
11/30 Fleming/Perrapato/ Sventy/Cuccinello PANTASOTE 26 Jefferson St. Passaic Insp. Sventy-L.C.	Received complaint of oily film on surface of river - traced to this company
11/30 Cupo/Sventy/Fleming/ & Perrapato CITY OF CLIFTON Paulison Ave. storm Progress	A series of 3 samples taken - 1 non polluting - 2 polluting - high fecal coliform -

FMG000317

946020290

12/4/79 Fleming/Perrapato CITY OF CLIFTON 8" Sanitary line crossing 3rd River at Automatic Data Processing	Progress	Progress report of work done - work began 12/4/79 - ground cut made - one length of transite sewer pipe connected into sanitary manhole.

FMG000318

946020291

Weekly Resumé
11-26-79 TO 11-30-79

11-30 Cordasco-Parr Town of Belleville Chestnut St. outlet	No samples taken this week - will continue to investigate.
11-30 Sventy-Cuccinello CBS Tap Paul Kohnee Dr. Elmwood Park	Oily material continues to drip through filter fence - company seeking solution to problem
11-30 Fleming-Perrapato City of Clifton Athenia Storm	City to conduct survey with help of PVSC river insp dept
11-30 Fleming-Perrapato City of Clifton 8" Sanitary line Crossing 3rd River at A.D.P.	Work to correct problem, to begin on 12/3/79

FMG000319

946020292

2

1.30 Sventy - Cuccinello Curtiss Wright Passaic St. Wood - Ridge	Boom & pads maintained - source of oil undetermined - brook appears clear.
11-30 Tomaro - McLaughlin Boro of S.L. North Chamber	Sp. - due to heavy rains Chamber opened - closed on following day
11-30 Sventy - Cuccinello City of Garfield Schroeder Br.	Samples taken analyzed as non - pollution
1-30 Sventy Imperial Electro Plating 52 Park Ave. Lyndhurst	No corrective action has been taken - pollution still exists - recommend our legal dept to intervene

FMG000320

946020293

11-30 Sventy-Cuccinello Boro of Lodi Millbank Br. at Saddle River	Sanitary line to be checked for any leaks or breaks
11-30 Sventy-Cuccinello Boro of Lodi Millbank Br. Before - after Gibraltar Chem. & Plastics	Dye Tests Conducted - To locate source - inconclusive - Sample taken analyzed as H.F.C.
11-30 Sventy-Cuccinello Boro of Lodi 12" overflow at Hendricks St. Pump Sta.	Monies to correct problem are a problem at present time.
11-30 Sventy-Cuccinello Town of Lyndhurst Lake Ave. Storm	Efforts have been made to locate source of pollution but to no avail.

FMG000321

946020294

11-30 Sventy - Cuccinello Town of Lyndhurst N.Y. Ave. Storm	Source of Pool under investigation Survey being made by E.T. Killam Co.
11-30 Dioro - Colello Monsanto Pennsylvania Ave. Kearny	Ortho phosphate still evident in samples
11-30 Dioro - Colello National Dual Oil Passaic Ave. Newark	Sheen [illegible] surface of river still visible
11/30 Dioro - Colello City of Newark Blanchard, Lockwood & Roanoke S.S.	Samples taken found to be polluting

FMG000322

946020295

5

11-30 Newark Housing Authority 535 Ave. P Newark	Sp. - 55 gallon drums carted off property - remaining ~~drums~~ contaminated drums on prop of N.J. Tpke. must be removed
1. 30 Cordasco-Parr City of Newark Meadowbrook Storm outlet	Status quo
11-30 Cordasco-Parr City of Orange Washington St. Storm	Sample taken analyzed as non-poll. - City continues chlorinating waters at above loc.

FMG000323

946020296

11-30 Fleming - Perrapato
City of Passaic
Madison St. S.E.

Status
Quo

11-30 Fleming - Perrapato
City of Passaic
Spear Village
outlet

unable to
sample this
week to
to high water
covering outlet

11-30 Flem - Perr.
City of Passaic
Oak St. + Paulison Ave.

Sp. Overflow
occurrence -
DPW notified -
Line Cleaned

- Flem. + Perr -
11-30 Pantarote
26 Jefferson St
Passaic

11-30 Cupo, Sventy, Fleming, Perrapato - a series
City of Clifton
Paulison Ave.
Storm Sewer

of 3 samples
Taken - 1 Non-
Poll. - 2 poll.

FMG000324

946020297

✓ board

WEEKLY RESUME

12/10/79 to 12/~~21~~14/79

12/10 Cuccinello/Fiore/ Colello P.S.E.& G. CO. 4th St. Harrison Called	Violation-Elimination - 6 inch feed line to keroscene holding tank developed a leak, thus causing oily material to flow to Passaic River.
12/12 Mc Laughlin/Tomaro/ Sventy Oily Film - Passaic River Fair Lawn - Paterson Called	Received call of oily film on surface of Passaic River - investigation made but to no avail - investigation to continue.
12/13 Cordasco/Parr Oil Spill 3rd River Chestnut Street Nutley called	Special - received complaint of oil spill - investigation made - found river clear - believe oily film due to oily runoff, from asphalt being laid for parking lot in area.
12/14 Fleming/Perrapato CITY OF CLIFTON Athenia Storm ✓	City trying to acquire necessary equipment in order to chlorinate storm line.
12/14 Fleming/Perrapato 8" Sanitary Line Crossing 3rd River at A.D.P. ✓	8 more lengths of 13' transite pipe has been installed as of 12/10.
12/14 Tomaro/Sventy BORO OF FAIR LAWN North Chamber ✓	Special - due to heavy rains - chamber opened up 12/13 p.m. - closed 12/14 a.m.
12/14 Sventy TOWN OF LYNDHURST New York Ave. storm at Livingston ✓	Fecal coliform present in storm sewer
12/14 Sventy TOWN OF LYNDHURST Lake Ave. Storm ✓	same as above
12/14 Fiore/Colello MONSANTO CO. Penn. Ave. Kearny ✓	Sample taken at outlet to Passaic River was polluting.
12/14 Colello/Fiore CITY OF NEWARK Blanchard, Lockwood, & Roanoke Storm Sewers ✓	Samples taken found to be polluting.
12/14 Cordasco/Parr CITY OF NEWARK Meadowbrook Storm ✓	Sample taken analyzed as high fecal coliform.

FMG000325

946020299

12/14 Fiore/Mc Laughlin Oil Spill on Mc Carter Highway, Newark	Insp	Special - oil truck leaking oil on road, due to broken seal oil cleaned up - none reached catch basin
12/14 Cordasco/Parr CITY OF ORANGE Washington St. Storm	✓	Observed flow to be clear - samples taken non polluting.
12/14 Fleming/Perrapato CITY OF PASSAIC Madison St.	✓	Samples taken analyzed as polluting fecal.
12/14 Fleming/Perrapato CITY OF PASSAIC Oak and Paulison	✓	Replacement of broken line to take place in a few days due to heavy work schedule repairing other broken lines in city.
12/14 Fleming/Perrapato CITY OF PASSAIC Speer Village outlet	✓	Lou Sobota stated that it would be at least another week before he could assist in locating pollution.
12/14 Tomaro/Sventy Red dye into Passaic River 5th Ave. Bridge Paterson	Called	Special - complaint of red color into river - due to heavy rain P.V.S.C. sewer overflows into river.
12/14 Fiore/Colello P.S.E.& G. CO. 4th St. Harrison Dredging Passaic River	Insp	Special - observed oil sheen on river due to wash waters from trucks.

FMG000326

946020300

Weekly Résumé
12/17 TO 12/21

Cuccinello, Dioro, Colello

12/10 P.S.E.&G. Co. 4th St. Harrison — V.E. - 6 in. feed line to Kerosene holding tank developed a leak, thus causing oily material to flow to Passaic River

12/12 McLaughlin, Tomaro, Sventy — Rec. call of oily film on surface of Passaic River - investigation made but to no avail, investigation to continue

Oily film - Passaic River
Dair Lawn - Paterson

12/13 Cordasco, Parr — Special - ~~Compl.~~ Rec. Complaint of ~~oily~~ oil spill - investigation made - Found River clear believe oily film due to oily runoff

Oil Spill 3rd River, Chestnut St. Nutley

Previous day

FMG000327

946020301

12/14 Sverty Town of Lyndhurst New York Storm at Livingston	fecal coliform present in storm sewer
12/14 Sverty Town of Lyndhurst Lake Ave. Storm	Same as ~~[illegible]~~ above
12/14 Dioe, Colello Monsanto Co. Pennsylvania Ave. Kearny	Sample taken at outlet to Passaic River was poll.
12/14 Colello, Dioe City of Newark Blanchard, Lockwood & Roanoke SS.	Samples taken found to be polluting.
12/14 Cordasco-Parr City of Newark Meadowbrook Storm	Sample taken analyzed as B.F.C.

FMG000328

946020302

12/14 Fleming / Perrapato City of Passaic Speer Village outlet	Lou Sobota stated that it would be a least another week before he could assist in locating pole
12/14 Tomaro / Sventy Red dye into Passaic River - 5th Ave. Bridge - Paterson	Sp. Compl. of red color into River - due to heavy rain PVSC sewers overflows into River
12/14 Dione - Colello P.S. 4th St. Harrison Dredging P.R.	Sp. observed oil sheen on river - due to wash waters from truck

FMG000329

946020303

✓ Book
✓ Cards

WEEKLY RESUME

12/24/79 to 12/28/79

12/26 Sventy/Perrapato CITY OF CLIFTON Scoles and Shafto Sts.	Insp	Violation-Elimination - due to broken pipe - city bypassed sanitary to storm, this practice was stopped by order of inspectors
12/28 Sventy CBS TOYS Paul Kohner Dr. Elmwood Park	monthly	Inspections made during month found no oily material seeping under filter fence
12/28 Cuccinello/Perrapato CITY OF CLIFTON Athenia Storm Sewer		Sample taken analyzed as polluting
12/28 Sventy CURTISS WRIGHT Passaic St. Wood Ridge	monthly	Filter pads and boom maintained at storm line - oily material contained · Felds Brook clear
12/28 Sventy/Tomaro CITY OF GARFIELD Cottage Place/River Drive	Insp	Violation-Elimination - blockage in sanitary line caused overflow into street catch basin thence Passaic River
12/28 Fiore/Colello/ Perrapato TOWN OF KEARNY Pennsylvania Ave.		Pennsylvania Ave. storm samples polluting - taken at Monsanto Company was non polluting
12/28 Sventy BORO OF LODI Millbank Brook at Mouth to Saddle River	monthly	8" line located 5' under Main St. discharges into brook - polluting materials-to be corrected sometime in future, stated by K. Job Boro Engineer
12/28 Sventy BORO OF LODI 12" Overflow into the Saddle River at Hendricks St. Pump Station	monthly	There has been no visible trace of seepage at this location during the month of December
12/28 Sventy TOWN OF LYNDHURST Lake Ave. Storm		Samples taken analyzed as polluting
12/28 Sventy TOWN OF LYNDHURST New York Ave. storm at Livingston		same as above

FMG000333

946020305

12/28 Fiore/Colello NATIONAL FUEL OIL Passaic Ave. East Newark update	Slight oil sheen still evident at this time
12/28 Fiore/Colello/ Perrapato CITY OF NEWARK Blanchard St., Lockwood St. & Roanoke Ave. Storm Sewers	Pollution still continues at these areas - nothing being done by city to abate problem
12/28 Cordasco/Parr CITY OF NEWARK Meadowbrook Storm	Status quo
12/28 Cordasco/Parr CITY OF ORANGE Washington St.	Sample taken non polluting-outlet running clear
12/29 Cuccinello/Perrapato CITY OF PASSAIC Madison St.	Samples indicate polluting - fecal
12/28 Tomaro/Perrapato CITY OF PASSAIC Paulison and Oak St. update	Bypassing of sanitary to storm took place - this was ordered stopped by inspectors
12/29 Cuccinello/Perrapato CITY OF PASSAIC Speer Village outlet	Sample taken analyzed as polluting
12/31/79 Cuccinello/Fleming/ Perrapato CITY OF PASSAIC Monroe St. and Parker Ave. INSP. (V.E.)	Overflow of sanitary line into Weasel Brook along Parker Ave.

FMG000334

946020306

Weekly Résumé

12/24/79 To 12/28/79

12/26 Sventy - Perrapato — V.E. due to broken pipe
City of Clifton - Scoles & Shafto St. - city bypass & split to storm

12/28 Sventy — Inspections made
CBS Toys — during month found
Paul [illegible] — no oily material
Elmwood Park — seeping under
filter [illegible]

12/28 Cuccinello - Perrapato — Sample taken
City of Clifton — analyzed as
Thenia Storm Sewer — pollution

12/28 Sventy — filter pads & [illegible]
Curtiss - Wright — maintained at
Passaic St. — storm line -
Wood - Ridge — oily material
contained - [illegible]
clear

2/28 Sventy - Tomaro — V.E. - blockage in
City of Garfield — sanitary [illegible] [illegible]
Cottage Place - — overflow [illegible] street
River Drive — catch [illegible] - [illegible]
Passaic River

FMG000335

946020307

12/28 Sventy
Town of Lyndhurst
Lake Ave. Storm

Samples taken
arranged in
pill

12/28 Sventy
Town of Lyndhurst
New York Ave.
Storm at Livingston

same as
above

12/28 Dioro-Colello
National Duel Oil
Passaic Ave.
East Newark

Slight oil
sheen still observed
on river

12/28 Dioro-Colello-
Perrapato
City of Newark
Blanchard Lockwood
St. & Roanoke Ave.
Storm Sewers

pollution still
continuing at
these loc. —
nothing being
done by
city to [illegible]

12/28 Cordasco-Parr
City of Newark
Meadowbrook
Storm

Status quo

FMG000336

946020308

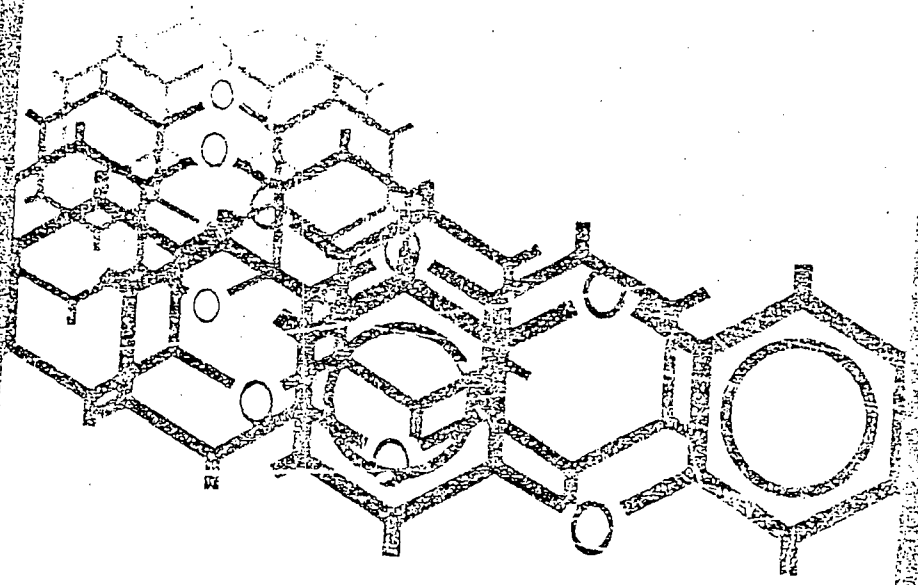
United States
Environmental Protection
Agency

Industrial Environmental Research
Laboratory
Cincinnati OH 45268

Research & Development

PB82-136847

EPA Dioxins



REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

946020310

RESEARCH REPORTING SERIES

Research reports of the Office of Research and Development, U.S. Environmental Protection Agency, have been grouped into nine series. These nine broad categories were established to facilitate further development and application of environmental technology. Elimination of traditional grouping was consciously planned to foster technology transfer and a maximum interface in related fields. The nine series are:

1. Environmental Health Effects Research
2. Environmental Protection Technology
3. Ecological Research
4. Environmental Monitoring
5. Socioeconomic Environmental Studies
6. Scientific and Technical Assessment Reports (STAR)
7. Interagency Energy-Environment Research and Development
8. "Special" Reports
9. Miscellaneous Reports

This report has been assigned to the ENVIRONMENTAL PROTECTION TECHNOLOGY series. This series describes research performed to develop and demonstrate instrumentation, equipment, and methodology to repair or prevent environmental degradation from point and non-point sources of pollution. This work provides the new or improved technology required for the control and treatment of pollution sources to meet environmental quality standards.

For further information, contact Project Officer David R. Watkins, Organic and Inorganic Chemicals Branch, IERL-Cr, Phone (513) 684-4481.

This document is available to the public through the National Technical Information Service, Springfield, VA 22161.

946020311

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO. EPA-600/2-80-197	2.	3. RECIPIENT'S ACCESSION NO. PB2 195847
4. TITLE AND SUBTITLE Dioxins		5. REPORT DATE November 1980
		6. PERFORMING ORGANIZATION CODE 345020
7. AUTHOR(S) M. P. Esposito, T. O. Tiernan, and Forrest E. Dryden		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS PEDCo Environmental, Inc. 11499 Chester Road Cincinnati, OH 45246		10. PROGRAM ELEMENT NO. 1BB610
		11. CONTRACT/GRANT NO. 68-03-2577 68-03-2579 68-03-2659
12. SPONSORING AGENCY NAME AND ADDRESS Industrial Environmental Research Laboratory Office of Research and Development U. S. Environmental Protection Agency Cincinnati, OH 45268		13. TYPE OF REPORT AND PERIOD COVERED Research Report, Final
		14. SPONSORING AGENCY CODE EPA 600/12

15. SUPPLEMENTARY NOTES
Other contributors were from the Brehan Laboratory and Chemistry Department of Wright State University and Walk, Haydel and Associates, Inc.

16. ABSTRACT

Concern about the potential contamination of the environment by dibenzo-p-dioxins through the use of certain chemicals and disposal of associated wastes prompted this study.

This report reviews the extensive amount of dioxin literature that has become available in recent years. Although most published reports deal exclusively with the highly toxic dioxin 2,3,7,8-TCDD, some include information on other dioxins. These latter reports were sought out so that a document covering dioxins as a class of chemical compounds could be prepared.

A brief description of what is known about the chemistry of dioxins is presented first. Chemical reaction mechanisms by which dioxins may be formed are reviewed, particularly those likely to occur within commercially significant processes. Various routes of formation are identified in addition to the classical route of the hydrolysis of trichlorophenol. Basic organic chemicals and pesticides with a reasonable potential for dioxin byproduct contamination are surveyed as to current and past producers and production locations. Classifications are presented both for general organic chemicals and for pesticides that indicate likelihood of dioxin formation. Conditions are noted that are most likely to promote dioxin formation in various processes.

An analytical approach for use in quantifying parts-per-trillion levels of TCDD's in various chemical wastes is included in this report. The Brehan Laboratory of Wright State University examined waste samples provided by the Environmental Protection Agency from plants manufacturing trichlorophenol, pentachlorophenol, and hexachlorophene, and from plants processing wood preservatives. The extraction procedure developed for isolating TCDD's from the various types of sample matrices is fully described. The analysis using highly specific and sensitive coupled gas chromatographic-mass spectrometric (GC/MS) methods is also described in detail. TCDD's were detected and quantitatively determined in several of the samples at levels in the ppt to ppm range.

Incidents of human exposure to dioxins are reviewed and summarized. A review of the known health effects of 2,3,7,8-TCDD and other dioxins is presented. Many toxicological studies of the effects produced by chronic exposures to these toxicants and the possible mechanisms of action are described.

Reports on possible routes of degradation are characterized. Finally, current methods of disposal of dioxin-contaminated materials are described, and possible advanced techniques for ultimate disposal are outlined.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group

18. DISTRIBUTION STATEMENT Unlimited	19. SECURITY CLASS (This Report) Unclassified	21. NO. OF PAGES
	20. SECURITY CLASS (This page) Unclassified	22. PRICE

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

946020312

PB82-136847

Dioxins

PEDCo-Environmental, Inc.
Cincinnati, OH

Prepared for

Industrial Environmental Research Lab.
Cincinnati, OH

Nov 80

U.S. Department of Commerce
National Technical Information Service

946020313

EPA-600/2-80-197
November 1980

DIOXINS

M.P. Esposito, T.O. Tiernan, and
Forrest E. Dryden

Contract Nos. 68-03-2577
68-03-2659
68-03-2579

Project Officer
David R. Watkins
Industrial Pollution Control Division
Industrial Environmental Research Laboratory
Cincinnati, Ohio 45268

INDUSTRIAL ENVIRONMENTAL RESEARCH LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

1a

946020314

DISCLAIMER

This report has been reviewed by the Industrial Environmental Research Laboratory-Cincinnati (IERL-Ci), U.S. Environmental Protection Agency, and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the U.S. Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

946020315

FOREWORD

When energy and material resources are extracted, processed, converted, and used, the related pollutional impacts on our environment and even on our health often require that new and increasingly more efficient pollution control methods be used. The Industrial Environmental Research Laboratory-Cincinnati (IERL-Ci) assists in developing and demonstrating new and improved methodologies that will meet these needs both efficiently and economically.

This report deals with a group of hazardous chemical compounds known as dioxins. The extreme toxicity of one of these chemicals, 2,3,7,8-tetrachloro-dibenzo-*p*-dioxin (2,3,7,8-TCDD), has been a concern of both scientific researchers and the public for many years. The sheer mass of published information that has resulted from this concern has created difficulties in assessing the overall scope of the dioxin problem. In this report, the voluminous data on 2,3,7,8-TCDD and other dioxins are summarized and assembled in a manner that allows comparison of related observations from many sources; thus, the report serves as a comprehensive guide in evaluation of the environmental hazards of dioxins.

Sections 2 and 3 present detailed information on the chemistry and sources of dioxins. Various routes of formation of dioxins are discussed, and the possible presence of dioxins in basic organic chemicals and pesticides is addressed. Section 4 details the development of an analytical method for detecting part-per-trillion levels of dioxins in industrial wastes. Sections 5 through 8 discuss routes of human exposure to dioxins, including accounts of public and occupational exposure, and the health effects, environmental degradation, transport, and disposal of dioxins.

David G. Stephan
Director
Industrial Environmental Research Laboratory
Cincinnati

946020316

PREFACE

This report deals with a group of hazardous chemical compounds known as dioxins. The report discusses the detailed chemistry of dioxin formation and identifies types of organic chemicals and pesticides which may have dioxins associated with them as impurities or byproducts. It investigates the development of an analytical technique for identifying dioxins in industrial wastes. Finally, it summarizes the reported incidents of human exposure to dioxins, and examines the toxicity, environmental transport, and techniques available for decontamination and disposal of dioxin-contaminated material.

An extensive amount of literature published during the past 25 years has been concerned primarily with one extremely toxic member of this class of compounds, 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. Often described in both popular and technical literature as "TCDD" or simply "dioxin," this compound is one of the most toxic substances known to science. This report, however, is concerned not only with this compound, but also with all of its chemical relatives that contain the dioxin nucleus. Throughout this report, the term "TCDDS" is used to indicate the family of 22 tetrachlorodibenzo-*p*-dioxin isomers, whereas the term "dioxin" is used to indicate any compound with the basic dioxin nucleus. The most toxic isomer among those that have been assessed is specifically designated as "2,3,7,8-TCDD."

The objective in the use of these terms is to clarify a point of technical confusion that has occasionally hindered comparison of information from various sources. In particular, early laboratory analyses often reported the presence of "TCDD," which may have been the most-toxic 2,3,7,8-isomer or may have been a mixture of several of the tetrachloro isomers, some of which are relatively nontoxic. Throughout this report, the specific term 2,3,7,8-TCDD is used when it was the intent of the investigator to refer to this most-toxic isomer. Since early analytical methods could not dependably isolate specific isomers from environmental samples, the generic term "TCDDS" is used when this term appears to be most appropriate in light of present technology.

946020317

ABSTRACT

Concern about the potential contamination of the environment by dibenzo-*p*-dioxins through the use of certain chemicals and disposal of associated wastes prompted this study.

This report reviews the extensive amount of dioxin literature that has become available in recent years. Although most published reports deal exclusively with the highly toxic dioxin 2,3,7,8-TCDD, some include information on other dioxins. These latter reports were sought out so that a document covering dioxins as a class of chemical compounds could be prepared.

A brief description of what is known about the chemistry of dioxins is presented first. Chemical reaction mechanisms by which dioxins may be formed are reviewed, particularly those likely to occur within commercially significant processes. Various routes of formation are identified in addition to the classical route of the hydrolysis of trichlorophenol. Basic organic chemicals and pesticides with a reasonable potential for dioxin byproduct contamination are surveyed as to current and past producers and production locations. Classifications are presented both for general organic chemicals and for pesticides that indicate likelihood of dioxin formation. Conditions are noted that are most likely to promote dioxin formation in various processes.

An analytical approach for use in quantifying part-per-trillion levels of TCDD's in various chemical wastes is included in this report. The Brehm Laboratory of Wright State University examined waste samples provided by the Environmental Protection Agency from plants manufacturing trichlorophenol, pentachlorophenol, and hexachlorophene, and from plants processing wood preservatives. The extraction procedure developed for isolating TCDD's from the various types of sample matrices is fully described. The analysis using highly specific and sensitive coupled gas chromatographic-mass spectrometric (GC-MS) methods is also described in detail. TCDD's were detected and quantitatively determined in several of the samples at levels in the ppt to ppm range.

Incidents of human exposure to dioxins are reviewed and summarized. A review of the known health effects of 2,3,7,8-TCDD and other dioxins is presented. Many toxicological studies of the effects produced by chronic exposures to these toxicants and the possible mechanisms of action are described.

Reports on possible routes of degradation are characterized. Finally, current methods of disposal of dioxin-contaminated materials are described, and possible advanced techniques for ultimate disposal are outlined.

CONTENTS

Foreword	iii
Preface	iv
Abstract	v
List of Figures	viii
List of Tables	xii
Acknowledgements	xv
List of Abbreviations	xvi
1. Introduction	1
2. Formation of Dibenzo-*p*-Dioxins	3
3. Sources of Dioxins	37
4. Analytical Method for Dioxins in Industrial Wastes	132
5. Routes of Human Exposures	168
6. Health Effects	187
7. Environmental Degradation and Transport	230
8. Disposal and Decontamination	257
References	271
Appendix A	307
Appendix B	344
Index	348

Preceding page blank

946020319

SECTION 3
SOURCES OF DIOXINS

This section discusses in detail the possible sources of dioxins. The first subsection deals with the basic organic chemicals with the greatest potential for byproduct formation of dioxins. Subsequent subsections examine chlorophenols and their derivatives, hexachlorobenzene, dioxins in particulate air emissions from combustion, dioxins in plastic, and dioxins produced for research.

ORGANIC CHEMICALS

Because of the very large number of organic compounds and their varying proclivities to form dioxins, the compounds were screened initially on the basis of molecular structure, process sequence, and commercial significance.

As a means of focusing attention on those organic chemicals most likely to be associated with the formation of dioxins, they were placed in the following classifications:

Class I—Polyhalogenated phenols, primarily with a halogen ortho to the hydroxyl group, with a high probability of dioxin formation. Products with such compounds appearing as intermediates are also considered. Manufacture of these materials normally involves reaction conditions of elevated temperature plus either alkalinity or free halogen presence, either of which is conducive to formation of halogenated dioxins.

Class II—Ortho-halophenols and ortho-halophenyl ethers where the substituted groups are a mixture of halogens and nonhalogens. Processing conditions are similar to those defined for Class I and produce mixed substituted dioxins. The distinction between Classes I and II is arbitrary and does not indicate necessarily a difference in likelihood of dioxin formation.

Class III—Other chemicals having the possibility, but less likelihood, of dioxin formation. These include 1) ortho substituted aromatic compounds requiring an unusual combination of reaction steps to produce dioxins, 2) aromatic compounds that might form dioxins because of their production under semicombustion conditions, and 3) products that might contain dioxins by way of contamination of their starting materials.

Since only commercially significant products are of interest in this study, the listing is limited to those produced in quantities in excess of 1000 pounds per year and/or whose sales reach $1000 per year, as required for listing in the Stanford Research Institute Directory of Chemical Producers. The product lists are based on commercial production during the past 10 years.

Table 7 lists and classifies commercial organic chemicals selected as having a relationship to dioxin formation or presence. Structures are shown for Classes I and II, the chemicals of primary importance. Class III compounds are listed by name only. In addition, Tables A1-5 in Appendix A give further information on the producers and production sites of organic chemicals.

Most of the organic chemicals considered are used as manufacturing intermediates or at least are subjected to subsequent formulation or fabrication.

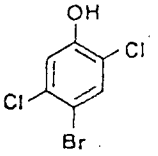
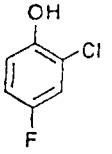
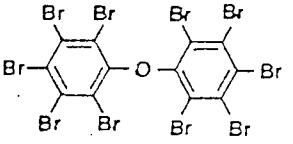
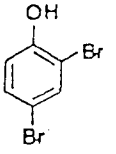
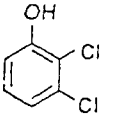
946020320

Thus further processing may introduce additional possibilities for dioxin formation, contamination, and exposure not contemplated within the scope of this study.

Toxicity of the many substituted dibenzo-*p*-dioxins varies widely. None are excluded from consideration here since disproportionation and other composition shifts may bring about changes from lower toxicity forms to higher (Buser 1976).

The intended reaction mechanisms for each Class I organic chemical are shown in Figures 2 through 12. The sequence is shown from left to right across the top of each figure, and the possible dioxin side reaction mechanism diverges to typical dioxin by products at the bottom of the figure. The specific dioxin products shown are those for which reasonably straightforward mechanisms can be postulated. In many cases more complex and secondary mechanisms may produce dioxins in addition to those shown.

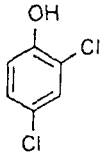
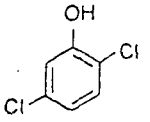
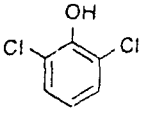
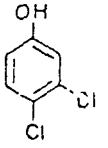
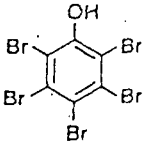
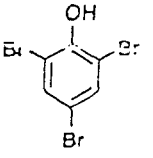
TABLE 7. ORGANIC CHEMICALS RELATED TO DIOXIN FORMATION

Class I	
4-BROMO-2,5-DICHLOROPHENOL	
2-CHLORO-4-FLUOROPHENOL	
DECABROMOPHENOXYBENZENE	
2,4-DIBROMOPHENOL	
2,3-DICHLOROPHENOL	

(continued)

946020321

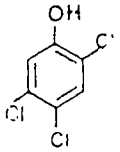
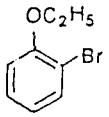
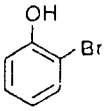
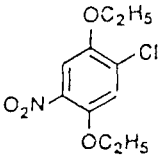
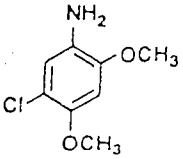
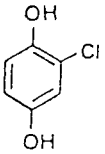
TABLE 7 (continued)

Class I (continued)	
2,4-DICHLOROPHENOL	
2,5-DICHLOROPHENOL	
2,6-DICHLOROPHENOL	
3,4-DICHLOROPHENOL	
PENTABROMOPHENOL	
2,4,6-TRIBROMOPHENOL	

(continued)

946020322

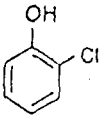
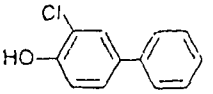
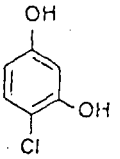
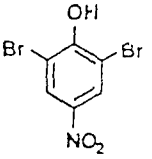
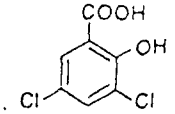
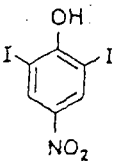
TABLE 7 (continued)

Class I (continued)	
2,4,5-TRICHLOROPHENOL	
Class II	
BROMOPHENETOLE	
O-BROMOPHENOL	
2-CHLORO-1,4-DIETHOXY-5-NITROBENZENE	
5-CHLORO-2,4-DIMETHOXY-ANILINE	
CHLOROHYDROQUINONE	

(continued)

946020323

TABLE 7 (continued)

Class II (continued)	
O-CHLOROPHENOL	
2-CHLORO-4-PHENYLPHENOL	
4-CHLORORESORCINOL	
2,6-DIBROMO-4-NITROPHENOL	
3,5-DICHLOROSALICYLIC ACID	
2,6-DIIODO-4-NITROPHENOL	

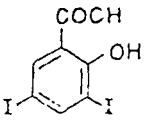
(continued)

946020324

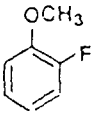
TABLE 7 (continued)

Class II (continued)

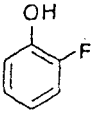
3 ,5-DIIODOSALICYLIC ACID



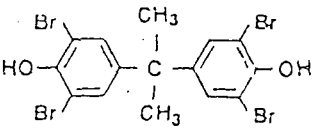
O-FLUOROANISOLE



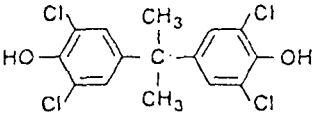
O-FLUOROPHENOL



TETRABROMOBISPHENOL-A



TETRACHLOROBISPHENOL-A



Class III

3-Amino-5-chloro-2-hydroxybenzenesulfonic acid
2-Amino-4-chloro-6-nitrophenol
o-Anisidine
Benzaldehyde
Bromobenzene
o-Bromofluorobenzene

(continued)

946020325

TABLE 7 (continued)

Class III (continued)
o-Chlorofluorobenzene
3-Chloro-4-fluoro-nitrobenzene
3-Chloro-4-fluorophenol
4-Chloro-2-nitrophenol
Chloropentafluorobenzene
2,4-Dibromofluorobenzene
3,4-Dichloroaniline
o-Dichlorobenzene
3,4-Dichlorobenzaldehyde
3,4-Dichlorobenzotrichloride
3,4-Dichlorobenzotrifluoride
1,2-Dichloro-4-nitrobenzene
3,4-Dichlorophenylisocyanate
3,4-Difluoroaniline
o-Difluorobenzene
1,2-Dihydroxybenzene-3,5-disulfonic acid, disodium salt
2,5-Dihydroxybenzenesulfonic acid
2,5-Dihydroxybenzenesulfonic acid, potassium salt
2,4-Dinitrophenol
2,4-Dinitrophenoxyethanol
3,5-Dinitrosalicylic acid
Fumaric acid
Hexabromobenzene
Hexachlorobenzene
Hexafluorobenzene
Maleic acid
Maleic anhydride
o-Nitroanisole
2-Nitro-*p*-cresol
o-Nitrophenol
Pentabromochlorocyclohexane
Pentabromoethylebenzene
Pentabromotoluene
Pentachloroaniline
Pentafluoroaniline
o-Phenetidine.
Phenol (from chlorobenzene)
1-Phenol-2-sulfonic acid, formaldehyde condensate
Phenyl ether
Phthalic anhydride
Picric acid
Sodium picrate
Tetrabromophthalic anhydride
1,2,4,5-Tetrachlorobenzene
Tetrachlorophthalic anhydride
Tetrafluoro-*m*-phenylenediamine
Tribromobenzene
1,2,4-Trichlorobenzene
2,4,6-Trinitroresorcinol

946020326

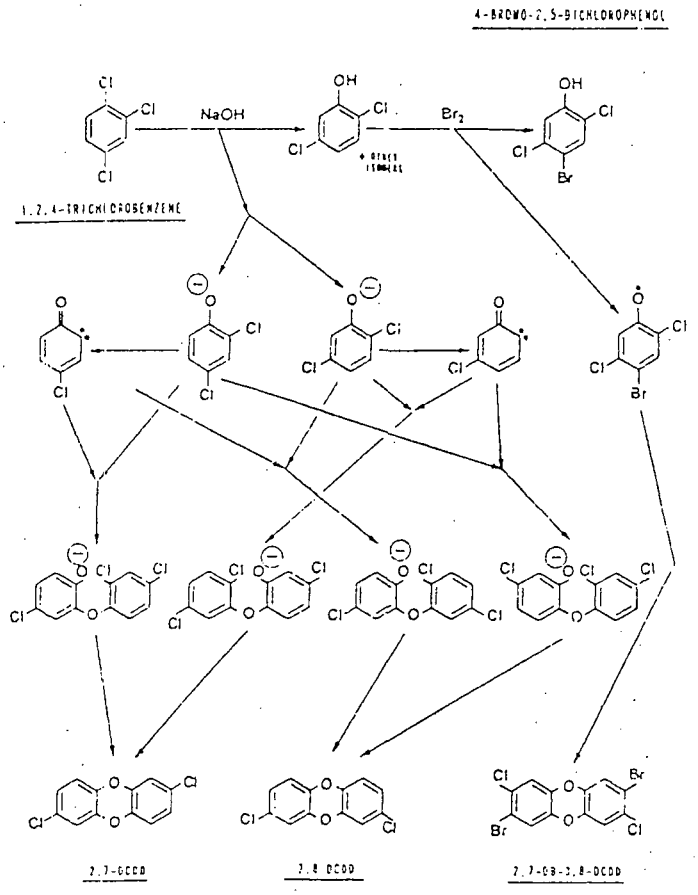


Figure 2. Proposed reaction mechanism for dioxin formation in the production of 4-bromo-2,5-dichlorophenol.

946020327

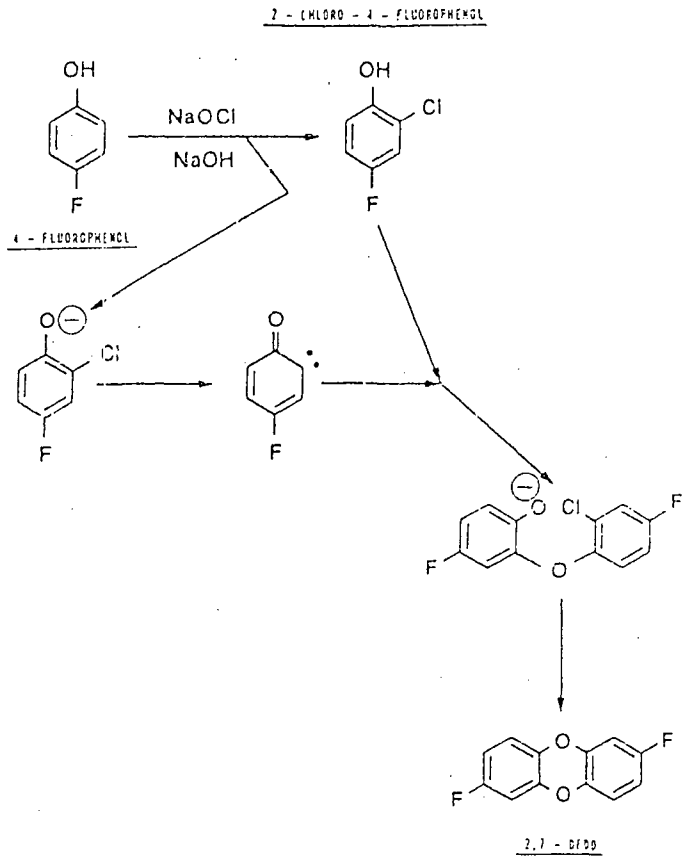


Figure 3. Proposed reaction mechanism for dioxin formation in the production of 2-chloro-4-fluorophenol.

946020328

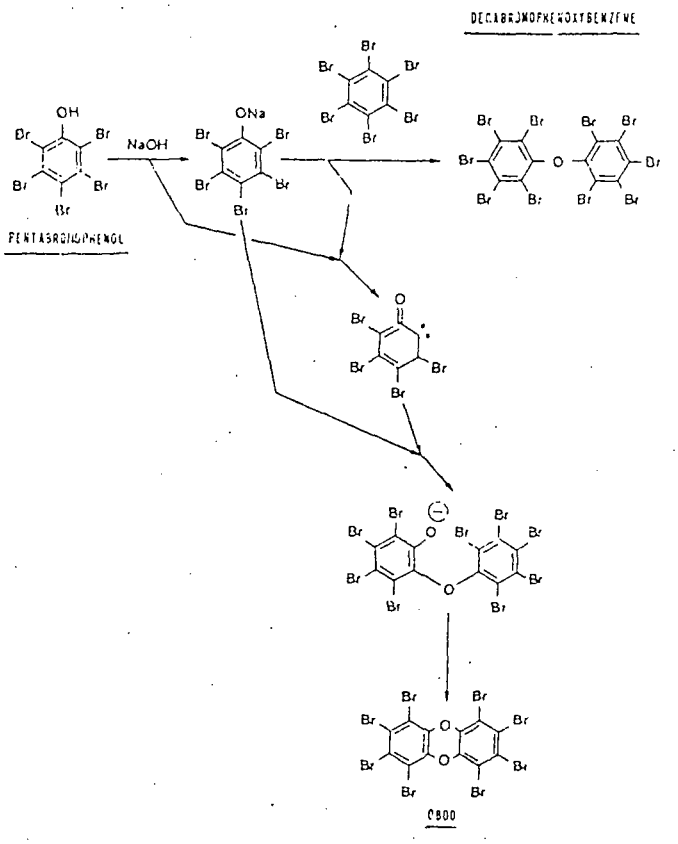


Figure 4. Proposed reaction mechanism for dioxin formation in the production of decabromophenoxybenzene.

946020329

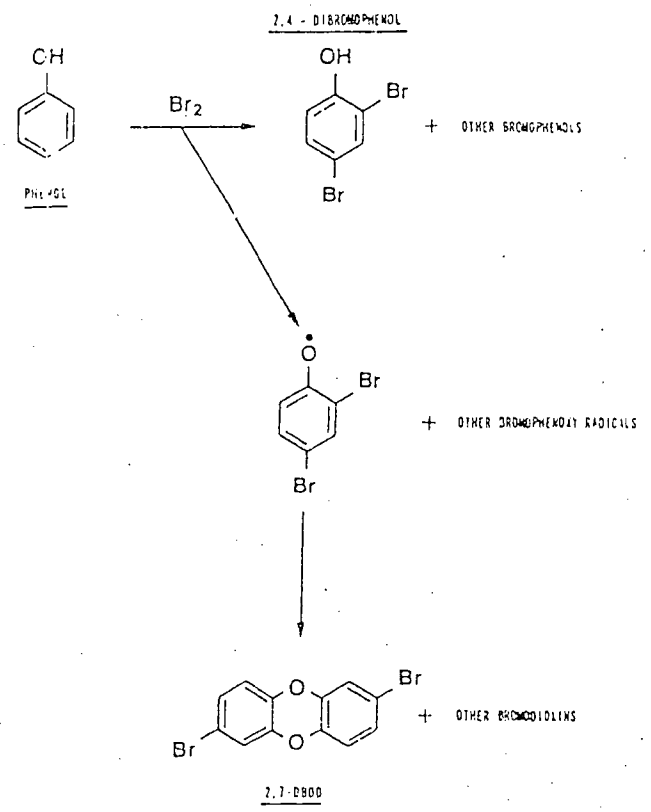


Figure 5. Proposed reaction mechanism for dioxin formation in the production of 2,4-dibromophenol.

946020330

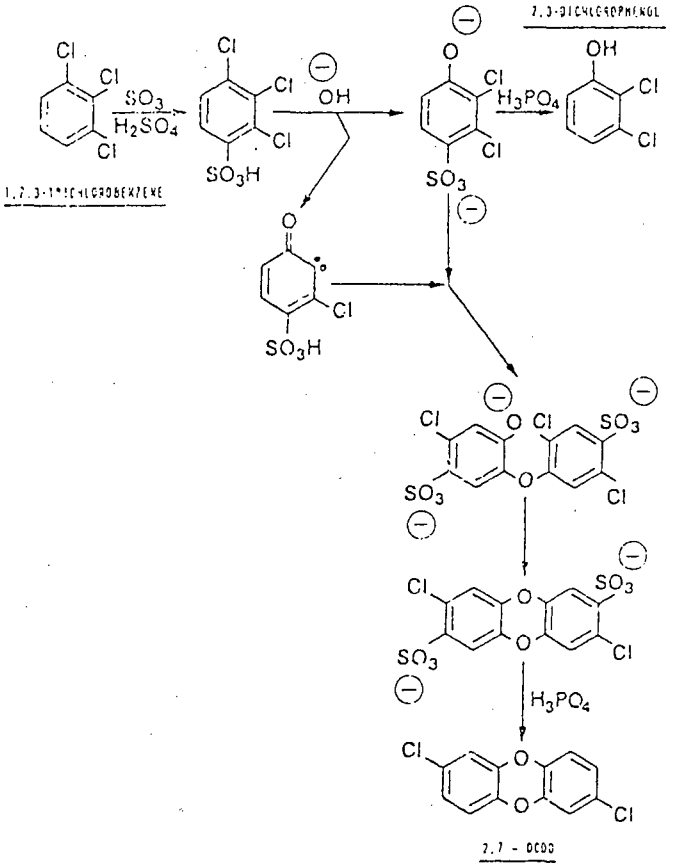


Figure 6. Proposed reaction mechanism for dioxin formation in the production of 2,3-dichlorophenol.

946020331

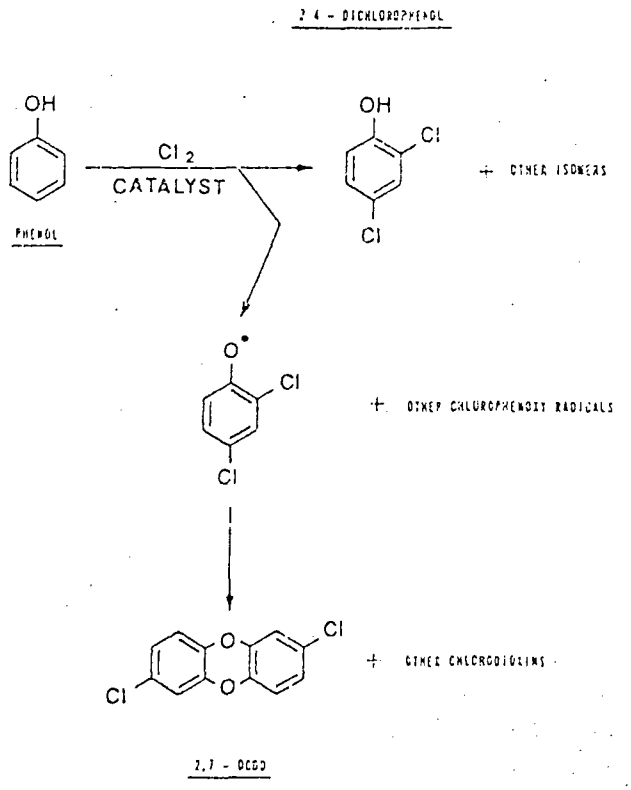


Figure 7. Proposed reaction mechanism for dioxin formation in the production of 2,4-dichlorophenol.

946020332

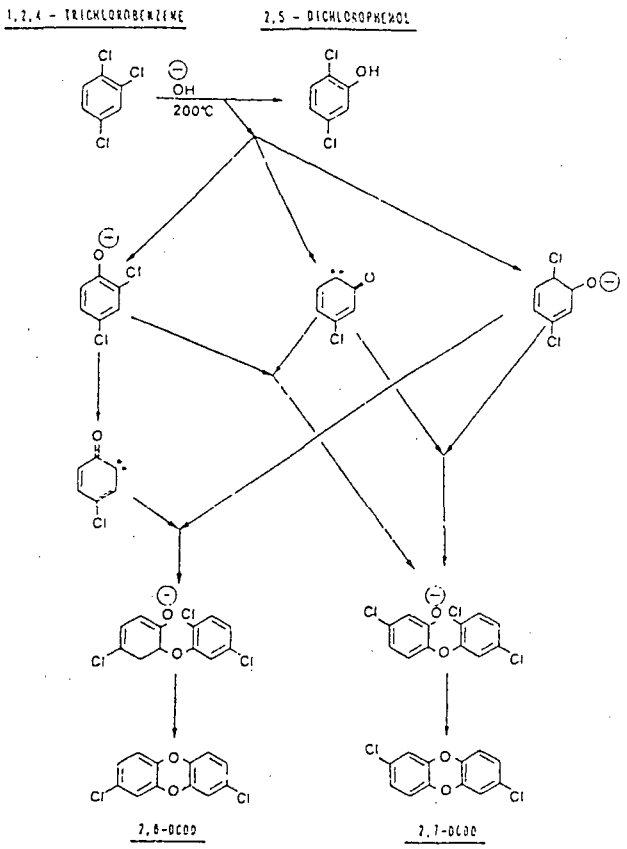


Figure 8. Proposed reaction mechanism for dioxin formation in the production of 2,5-dichlorophenol.

946020333

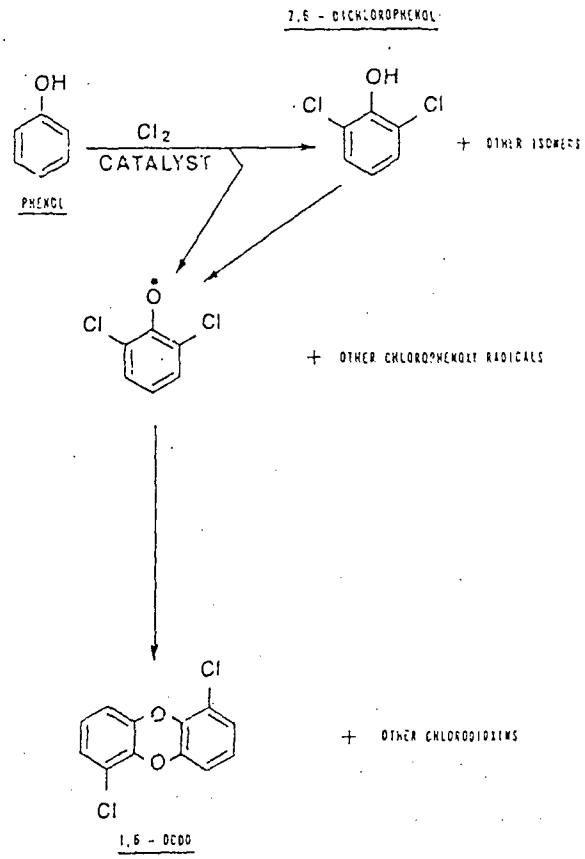


Figure 9. Proposed reaction mechanism for dioxin formation in the production of 2,6-dichlorophenol.

946020334

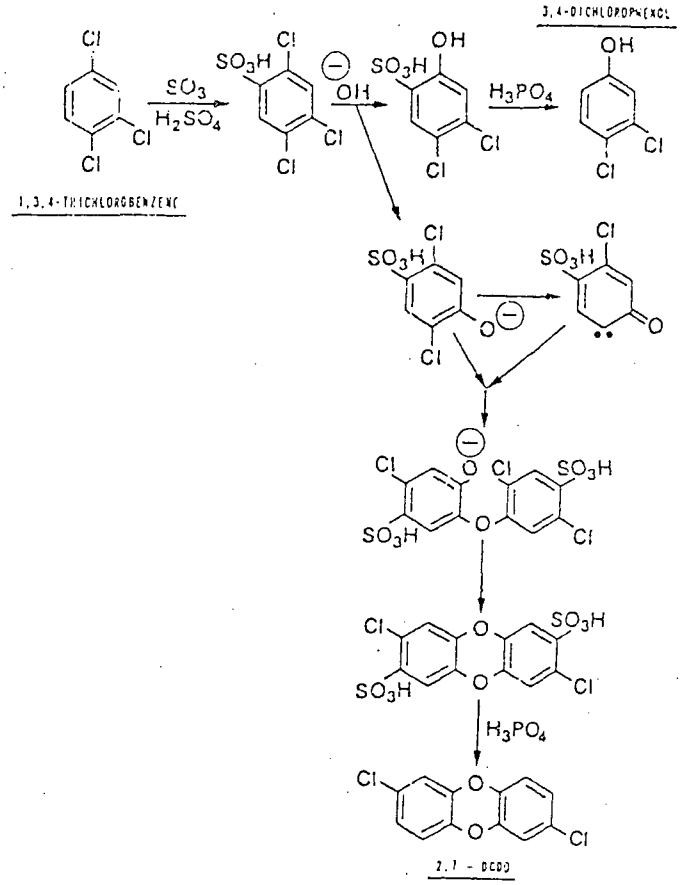


Figure 10. Proposed reaction mechanism for dioxin formation in the production of 3,4-dichlorophenol.

946020335

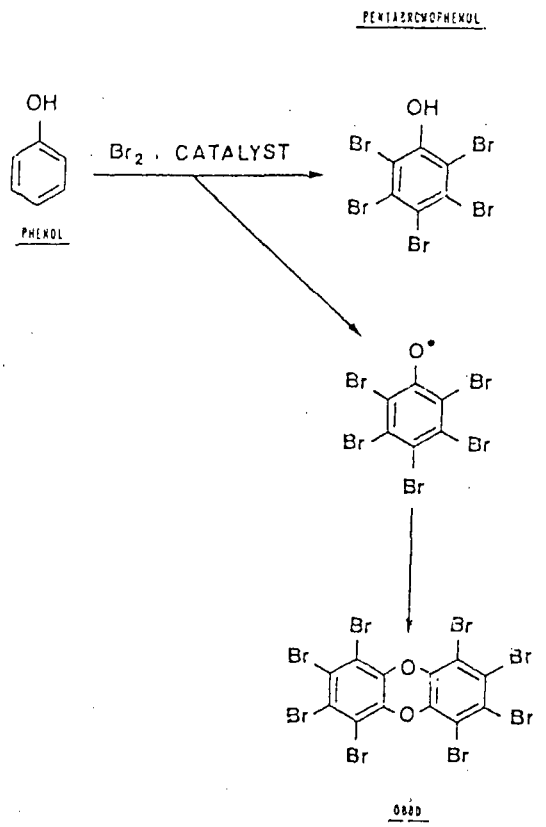


Figure 11. Proposed reaction mechanism for dioxin formation in the production of pentabromophenol.

946020336

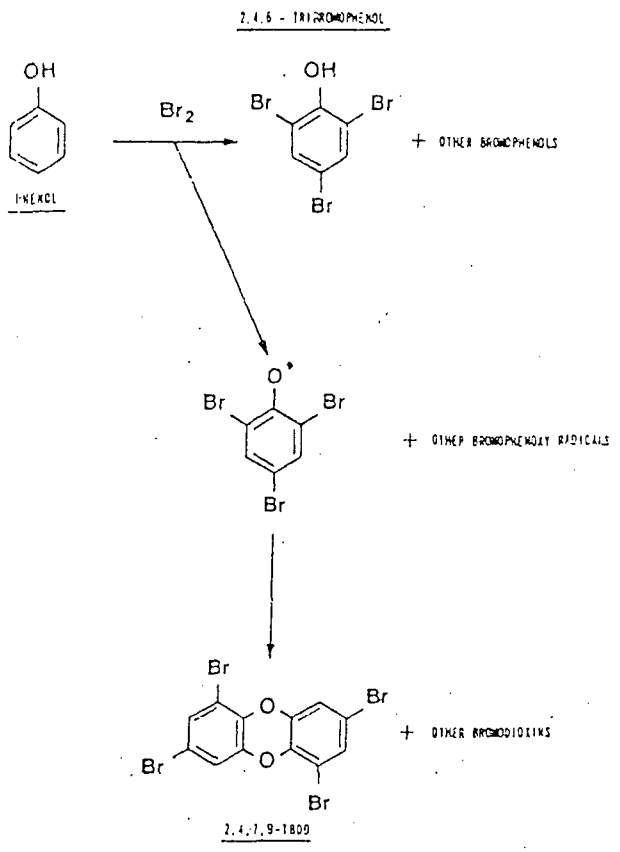


Figure 12. Proposed reaction mechanism for dioxin formation in the production of 2,4,6-tribromophenol.

946020337

PESTICIDE CHEMICALS

Pesticides are the most significant group of organic chemicals in relation to dioxin occurrence. This statement is based on the structure and reaction mechanism analogy, reaction conditions, detected presence of dioxins in a number of commercial pesticide products, and a history of environmental contamination problems, particularly with trichlorophenol and 2,4,5-T.

Chlorinated dibenzo-*p*-dioxins are known to be present in at least trace amounts in a number of pesticide chemicals. These include 2,4,5-T, silvex, 2,4-D, erbon, sesone, DMPA, ronnel, tetradifon, and the various chlorophenols (Fishbein 1973). In addition, the chemical structures, reactions, and process conditions for a number of others indicate dioxin content potential.

This study deals with production of the basic pesticide chemicals. Thus it does not address problems of dioxin formation possibly resulting from formulation, storage, distribution, and utilization of the pesticides. If exposure to alkaline formation media or elevated temperatures is encountered in any of the diverse procedures for handling and use of these pesticides, dioxin formation could be a significant problem.

Selection and Classification

The pesticide chemicals were selected for evaluation in this study on the basis of molecular structure, from those listed as commercial pesticides in the Farm Chemicals Handbook. The primary criterion was an ortho-halophenolic structure, or the derivative esters and salts thereof. Also considered were ortho dihalo aromatic structures, which conceivably could convert to phenols upon exposure to alkaline conditions.

A second criterion was a minimum commercial production level of 1000 pounds or $1000 value per year. These correspond to the minimum levels required for inclusion in the Stanford Research Institute Directory of Chemical Producers, which was a primary reference. The lists are based on production during the past 10 years.

The pesticide chemicals considered in this study are listed in Table 8. They are grouped into classes representing likelihood of dioxin formation, as follows:

Class I -- Highly likely to be associated with the presence of halogenated dibenzo-*p*-dioxins because of the presence of an ortho-halogenated phenol in the reaction sequence, with subjection to elevated temperature ($\geq$145° C+) plus either alkalinity or the presence of free halogen.

Class II -- Reasonable but lesser probability of such dioxin association because of the presence of phenolic or aromatic structures related to dioxins; although not directly involving dioxin precursive conditions, such chemicals might form dioxins under irregular operating conditions.

TABLE 8. LIST OF PESTICIDE CHEMICALS

General name	Chemical name
Class I	
Bifenox	Methyl-5-(2,4-dichloroephenoxy)-2-nitrobenzoate
Chloranil	2,3,5,6-Tetrachloro-2,5-cyclorhexadiene-1,4-dione
(continued)	

946020338

TABLE 8. (continued)

General name	Chemical name
2,4-D and esters and salts	(2,4-Dichlorophenoxy) acetic acid and esters and salts
2,4-DB and salts	2,4-Dichlorophenoxybutyric acid and salts
Dicamba	3,6-Dichloro-2-methoxybenzoic acid
Dicamba, dimethylamine salt	3,6-Dichloro-2-methoxybenzoic acid, dimethylamine salt
Dicapthon	Phosphorothioic acid *o*-(2-chloro-4-nitrophenyl) *o,o*-dimethyl ester
Dichlofenthion	Phosphorothioic acid *o*-2,4-dichlorophenyl *o,o*-diakyl ester
Disul sodium (sesone)	2,4-Dichlorophenoxyethyl sulfate, sodium salt
2,4-DP	2-(2,4-Dichlorophenoxy) propionic acid
Erbon	2,2-Dichloropropanoic acid 2-(2,4,5-trichlorophenoxy) ethyl ester
Hexachlorophene	2,2'-Methylene bis (3,4,6-trichlorophenol)
Isobac 20	2,2'-Methylene bis (3,4,6-trichlorophenol), monosodium salt
Nitrofen	2,4-Dichlorophenyl-*p*-nitrophenyl ether
Pentachlorophenol (PCP) and salts	Pentachlorophenol and salts
Ronnel	Phosphorothioic acid, *o,o*-dimethyl O-(2,4,5-trichlorophenyl) ester
Silvex and esters and salts	2-(2,4,5-Trichlorophenoxy) propionic acid and esters and salts
2,4,5-T and esters and salts	(2,4,5-Trichlorophenoxy) acetic acid
—	2,3,4,6-Tetrachlorophenol
—	2,4,5-Trichlorophenol
Class II	
—	*o*-Benzyl-*p*-chlorophenol
Bromoxynil and esters	3,5-Dibromo-4-hydroxybenzonitrile

(continued)

946020339

TABLE 8. (continued)

General name	Chemical name
Carbonphenothion	Phosphorodithioic acid *s*-[[(4-chlorophenyl)thio]methyl] *o,o*-diethyl ester
DCPA	2,3,5,6-Tetrachloro-1,4-benzenedicarboxylic acid dimethyl ester
Dichlone	2,3-Dichloro-1,4-haphthalenedione
Dinitrobutylphenol, ammonium salt	2,4-Dinitro-6-sec-butyl phenol, ammonium salt
Loxynil	3,5-Diiodo-4-hydroxybenzonitrile
Lindane	1,2,3,4,5,6-Hexachlorocyclohexane, gamma isomer
MCPA	(4-Chloro-*o*-toloxy) acetic acid
MCPB	4-(2-Methyl-4-chlorophenoxy) butyric acid
Mecoprop	2-(4-Chloro-2-methylphenoxy) propionic acid
Parathion	Phosphorothioic acid *o,o*-diethyl *o*-(4-nitrophenyl) ester
PCNB	Pentachloronitrobenzene
—	Pipecolinopropyl-3,4-dichlorobenzoate
Piperalin	3-(2-Methylpiperidinol)propyl-3,4-dichlorobenzoate
Propanil	3,4-Dichloropropionanilide
Tetradifon	1,2,4-Trichloro-5-[(4-chlorophenyl)-sulfonyl] benzene
—	2,3,6-Trichlorobenzoic acid
—	2,3,6-Trichlorophenylacetic acid and sodium salt
—	Triiodobenzoic acid

Chemical Reactions

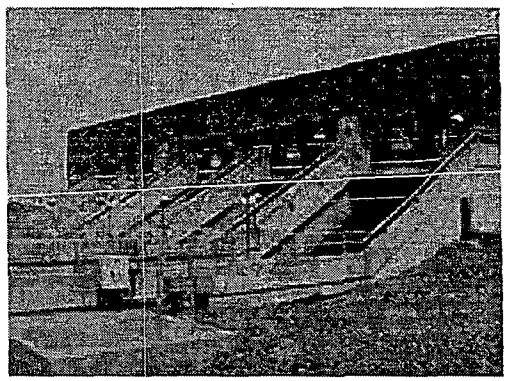
Higher chlorinated dioxins have been detected in samples of a number of pesticides produced from 1950 to 1970. Data from these analyses were summarized by Fishbein (1973), as shown in Table 9.

946020340

Newark Water and Sewer

City of Newark Sewer System

Existing Sewerage System:



Most of Newark is served by a combined sewer system. Dry weather flows (DWF) are diverted through interceptors to the Passaic Valley Sewage Commissioners (PVSC) Treatment Plant. Twenty primary combined outfalls discharge to the Passaic River and the Airport Peripheral Ditch tributaries excess combined flows from about 10.7 square miles, intermixed separate storm flows from 0.3 square miles, and intermixed separate sanitary flow from 3.4 square miles, including 2.5 square miles located in the City of East Orange. Three relief outfalls provide separate storm drainage for 1.3 square miles downstream of four interconnections that divert excess combined flows from adjacent combined sewers. There are four permitted storm sewers that drain about 0.5 square mile.

Separate sanitary systems tributary to the PVSC serve the northwestern and southeastern portions of the City. Separate sanitary sewage from the City's southwestern corner and Vailsburg section is treated at the Joint Meeting of Essex-Union (JMEU) Treatment Plant in Elizabeth.

PVSC Sewage Treatment (Goto PVSC website)

All of the City's combined sewer systems are within the PVSC service area. DWF and limited rates of combined sewage in wet weather flows (WWF) are conveyed by intercepting sewers to the PVSC. Plant effluent discharges to New York Harbor. PVSC indicates that Newark contributes about 30 percent of the average 280-300 MGD Plant Flow. About one-third of Newark's 80 to 90 MGD is domestic waste. The remainder consists of industrial wastes, infiltration, tidal intrusion, and combined system inflow.

946020342

Interceptors and Metering

Newark's sewage is delivered to the Plant by the PVSC Main Interceptor and its branches, and by the City's Southside Interceptor.

The PVSC Main Interceptor extends northward from the Plant through Newark, Belleville, Nutley, Passaic, Clifton and Paterson, generally paralleling the west bank of the Passaic River. The 30 to 50 ft. deep, 5.8 mile segment through Newark extends beneath Wilson Avenue, Ferry Street and McCarter Highway. The hydraulic capacity of this segment of the sewer, if clean, ranges from about 200 MGD upstream to 340 MGD downstream, but some capacity is lost due to sedimentation.

Branch interceptors and regulated combined sewer connections enter the Main Interceptor in Newark. PVSC branch interceptor connections include the Kearny-Newark-Harrison (KNH) near Jackson Street, and the Jabez Street near Pulaski Skyway. The Second River Union Outlet Interceptor connects to the Main Interceptor at the Belleville boundary.

Regulated combined flows from northern and downtown Newark are directly intercepted by the Main Interceptor from the following Outfalls: (a) 002 at Verona Avenue, (b) 003 near Delavan Avenue East, (c) 004-005 at Herbert Place, (d) 007-008 at Third Avenue East, (e) 009-010 at Clay Street, (f) 011 at Orange Street, (g) 012 at Bridge Street, (h) 013 near Rector Street, (i) 014 near Saybrook Place, and (j) 015 near City Dock.

Southside Interceptor

The Southside Interceptor extends four miles southwestward from the Plant, south and east of the Conrail corridor, to 1/4 mile north of the City's southern boundary. The sewer was constructed by the City but is leased and maintained by the PVSC. Its diameter ranges from 54 to 84 inches. Depths to invert range from 13 to 25 feet. The Southside Interceptor intercepts regulated combined flows from outfall 025 near the Peddie Ditch, Outfall 026 near International Way, and Outfall 027 near the Busch brewery. It also intercepts separate sanitary flows from Haynes Street industries, Newark Airport and its hotels, Busch brewery, and State Prison. The hydraulic capacity of the clean sewer (unsilted) is about 28 MGD upstream, 49 MGD downstream of Outfalls 026, and 85 MGD downstream of Outfalls 025. However, some of this capacity is lost due to sedimentation.

The Second River Union Outlet

946020343

The 54-inch PVSC Second River Union Outlet interceptor enters the Main Interceptor in McCarter Highway south of the Belleville boundary. The separate sanitary interceptor follows the banks of the Second River and services the separate systems in northwesten Newark, and portions of Belleville, Bloomfield, East Orange, Glen Ridge, Montclair and Orange. The Union Outlet connection is provided with a 48-inch overflow that discharges to the Passaic River in Newark about 150 feet north or Outfall 022. During periods of heavy rain and Main Interceptor surcharge, the PVSC may shut the interceptor connection gate and allow all sanitary flow to overflow. Although the Union Outlet overflow is within Newark, it is under the jurisdiction of the PVSC.

Collection System

There are about 410 miles of sewers in Newark's collection system that are tributary to the PVSC system, excluding building connections. Most of Newark's trunk and collection system was constructed in the nineteenth century. The combined sewer diameters range from 8 to 12 inches at the extremities to more than ten feet at some of the larger outfalls.

With the construction of the PVSC Treatment Plant and interceptors, PVSC regulators diverted a regulated maximum rate of sewage into the interceptors at the locations where each combined sewer outfall passed over the interceptor, allowing rates in excess of the intercepted flow to discharge to the waterway. Subsequently, separate storm systems and sanitary sewers have been installed in newly developed areas, and in portions of areas once served by the combined system.

In response to internal flooding caused by lack of combined sewer capacity, the City constructed relief storm sewers that allow the surcharged combined sewer to overflow into the relief sewer.

The average dry weather sanitary flow rate in Newark equals the runoff from 0.02 to 0.05 in/hr. of rainfall runoff. The City's combined sewers have capacities to convey from 0.80 to 2.00 in/hr. of rainfall runoff, many times that needed to convey peak sanitary flows. Newark's largest combined trunks have twice the capacity of the Main Interceptor. At each point of combined sewage interception, it is necessary to limit the rate of flow entering the interceptor with a regulator. Combined sewage in excess of interception capacity overflows a diversion dam and discharges to the waterway. Where the DWF diversion dam crest is below the Spring high tide elevation, tide gates are provided on the outfall to prevent the interception of waterway flow.

The PVSC maintains ten major and five minor CSO regulators on the combined Newark sewers entering their interceptors. The major regulators control interception from Outfalls (a) 002, (b) 004-005, (c) 008, (d) 009-010, (e) 013, (f) 014, (g) 015, (h) 016,

946020344

(i) 017, and (j) 018. The minor regulators control interception from Outfalls (a) 003, a second regulator downstream of the primary, (b) 007, (c) 009b in Passaic Street that discharges to Outfall 009, (d) 011 and (e) 012. The intercepted flows are limited by the capacities of vertical orifices and downstream interconnecting piping. At PVSC's ten major regulators, flow interception can be shut off with remote operated sluice gates on the downstream face of the orifice.

The City constructed nine presently active regulators, intercepting flow from seven combined sewer Outfalls, (a) 003 upstream, (b) 022, (c), 023, (2), (d) 024-030, (e) 025 (2), (f) 026, and (g) 027-029.

Due to maintenance problems and obsolescence, all float operated gates originally installed, except that upstream of Waverly Ditch Outfall 027-029, have been abandoned or removed. The rates of interception are now controlled by fixed orifices and *knife gates*.

When the Plant flow approaches 480 MGD, the PVSC operator closes the gates at one or more of the points of interception until plant flow stabilizes at 480 MGD. The gates are reopened after the rain has ended. The sequencing is based on the operator's assessment of the amount of throttling required for the specific rainfall. There are provisions for manual operation of the gates if the telemetry fails.

The City installed a knife gate on the regulator on Outfall 022. The normally open knife gate on the DWF connection shuts when the adjacent storage module flapgate opens to discharge stored combined sewage to the Passaic River.

When the *sluice gates* on the ten regulator orifices or the Union Outlet connection is closed, all tributary subsystem flows are diverted to the Passaic River untreated via the CSO outfall. When the gate on the Southside Interceptor is closed, the Interceptor surcharges about 10 to 15 feet. The surcharge backs up at the non-regulated tributary flows that discharge with the regulated flow through the Peddie and Waverly overflows into the tidal ditches. The surcharging of the Southside Interceptor could possibly flood low-lying tributary connections.

Several of the original combined sewers had insufficient capacity to prevent upstream flooding. Accordingly, the City installed interconnections that permit surcharged combined sewers to overflow into adjacent combined sewers or storm relief sewers. Interconnections with upstream combined system divert surcharged combined flow through the Meadowbrook outfall 001 to the Second River, and through Outfalls 003 and 006 to the Passaic River. (Outfall 003 is partially intercepted, but separate channels in the upstream regulator prevent the interception of the relief flow.)

The City has participated in CSO pollution control demonstration projects for in-line

946020345

storage floatable netting.

As part of a CSO abatement program for the Ironbound section, Newark, installed, in 1982 demonstration storage module regulator at Roanoke Avenue Outfall 022 to utilize available storage capacity in a large flat tributary-combined trunk. Generally the tributary sewer can store between 0.50 and 0.10 inches of tributary rainfall runoff. The module contains a hydraulically operated *flapgate* across the outfall and the knife gate on the orifice regulated DWF diversion. Interception is provided while the in-line capacity is filling. When filled, the flapgate opens, rapidly discharging all stored combined sewage, and the knife gate shuts, ceasing interception until the flap gate shuts.

As part of a 1991 USEPA demonstration grant, pontoon-mounted netting systems are installed to intercept CSO floatable 1/2 inch or larger at Saybrook Place, Outfall 014, and Peddie Ditch, Outfall 025.

Outfalls with CSO Permits

Newark's 30 permitted outfalls have been classified herein as follows: (1) 21 (17 excluding the second of twin-barrel outlets) as major primary, (2) three as minor primary, (3) two as completely unintercepted relief, and (4) four as unintercepted separate storm. Major primary outfalls drain more than 50 acres and overflow when the capacity of the regulated interception connection is exceeded. Minor primary outfalls operate similarly but have drainage areas less than 15 acres. Relief outfalls discharge CSO only when the upstream flow levels in adjacent combined sewers rise to the level of interconnections between the combined and relief system. Separate storm outfalls with CSO Permits have no legitimate sanitary connections but may have (1) served as a CSO outfall prior to sewer separation, (2) connected illicit sanitary connections, or (3) drainage from polluted surface flows.

24 Hour Hotline: 973-733-8411

946020346

946020347

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 Wilson Avenue
Newark, N.J. 07105
(201) 24-[illegible]

Date: March [illegible], 1979

Plant Ref. No. .....

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Automatic Electro-Plating Corp.

Address: 185 Foundry Str. Newark, N.J. Zip 07105

Person and Title to whom any further inquiries should be directed:

Mr. Frank Borriello

Phone No.: 201-589-0344

Number of Employees: 12

Number of Working Days Per Week: 5

Number of Shifts Per Day: 1

Area of Property: - Acres, or 7200 Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: 3471

Electroplating

Finished Product(s): Metal coatings on manufacturer's parts.

Average Production: Not applicable

Raw Materials Used: Boric Acid, Nickel Sulfate & Chloride Chromates, Acids, Alkalai cleaners, Sodium Cyanide, Sodium Hydroxide

Brief Description of Operations: Manufacturer's parts are electroplated and returned.

946020348

Water received in *Gallons* (Note: multiply cu. ft. x 7.48).

Purchased water in 19 78 from: City of Newark

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

Total Purchased 19 78: 12,000,000 gallons

Well Water

1st Quarter None

2nd Quarter

3rd Quarter

4th Quarter

Total well water received in 19___:

River Water

1st Quarter None

2nd Quarter

3rd Quarter

4th Quarter

Total river water taken in 19___:

TOTAL OF ALL WATER RECEIVED IN 19___:

Water Use in 1978:

Water to Product (include evaporated and lost water): 600,000 gals

Water to Sanitary Sewer: 160,000 gals

Water to Storm Sewer, River or Ditch: None

TOTAL WATER USE IN 19___: 11,840,000

Name of River, Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream, or tributary: Not applicable

946020349

ANSWER THE FOLLOWING QUESTIONS ONLY IF THE PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS

(Note: Analyses should be based on a 24-hour composite sample)

Characteristics of Plant Waste discharged to sanitary or combined sewer, after treatment if any. Indicate units of measure where applicable (e.g. Mg/l).

a) pH: 6.9 b) Turbidity: .....

c) Temperature: 65° d) Radioactive? Yes ..... No X

e) Solids Concentration:

1) Total Solids 250 Volatile - Mineral -

2) Suspended Solids 85 Volatile - Mineral -

f) Oil and Grease Concentration:

1) Floatable Oils None

2) Emulsified Oils None

g) Chlorides 1.0PPM

h) Chemical Oxygen Demand (C.O.D.): Not applicable

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): Not applicable

j) Total organic carbon (T.O.C.): Not applicable

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.) CR III 21PPM-0.7# 1 day
CR VI 6"" -2.2# 1 Day

Copper 1.0- Nickel 3PPM-1.1# 1 Day
Zinc 10 "" 3.8# 1 day

l) Toxic Material—Name and concentration e.g., cyanide salts, etc.): ---
cyanide - 6.0PPM - 2.2# 1 day

m) Solvents—Name and concentration: None

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics): None

o) Date and time span of sample 12/21/78 - 8hr. span - pt every 15 min.

Explain hours, method of discharge of waste to Sanitary Sewer and peak rate of flow, e.g., (continuing for 8 hours per day, 5 days per week at 100 gal./day rate) (batch twice a day for 20 minutes at 100 gal./min.) (Continuous 24 hours steady or with peaks at 2 P.M., peak rate 3 M.G.D.) etc.

Steady flow over 8 hours of operation
there are no peak hours.

946020350

Characteristics of Plant Discharge to Storm Sewer, River, or Ditch, after treatment if any. Indicate units of measure where applicable (e.g., Mg/l).

a) pH: ..... b) Turbidity: .....

c) Temperature: ..... d) Radioactive? Yes ..... No .....

e) Solids Concentration:

1) Total Solids ..... Volatile ..... Mineral .....

2) Suspended Solids ..... Volatile ..... Mineral .....

f) Oil and Grease Concentration:

1) Floatable Oils .....

2) Emulsified Oils .....

g) Chlorides .....

h) Chemical Oxygen Demand (C.O.D.): .....

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): .....

j) Total Organic Carbon (T.O.C.): .....

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.):

.....

.....

l) Toxic Material—Name and concentration (e.g., cyanide salts, etc.): .....

.....

m) Solvents—Name and concentration: .....

.....

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics): .....

.....

o) Date and time span of sample: .....

Do you pretreat any waste before discharge? .....

If so, describe process and disposal of residue removed: .....

.....

.....

.....

Certification of Laboratory doing sampling and making analyses shall be given. Procedures shall be those shown in the 13th edition of Standard Methods for the Examination of Water and Wastewater, where applicable. If no procedure is applicable, the laboratory is to describe method and procedure used in analyses.

Frank Bonello Pres.

Signature and title of person preparing report

946020351

SIC 3471

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONES: (201) 589-0344 & 589-0345

RECEIVED
JAN 8 1981
State of New Jersey
Dept. Environmental Protection
Division Water Resources

January 7, 1981

315

State of New Jersey
Dept. of Evironmental Protection
Division of Water Resources
P.O. Box CN-029
Trenton, NJ 08625

Dear Sir:

Enclosed is a copy of our Base Line Report as requested in your letter dated Nov. 18, 1980.

BASE LINE REPORT

NAME: Automatic Electro-Plating Corp.

ADDRESS: 185 Foundry Street, Newark, NJ 07105

LOCATION: Building #21

NATURE: Metal Finishing

AVERAGE RATE
OF PRODUCTION: 25,000 Lbs. per day approx.

SIC NO.: 3471

FLOW RATE: 30,000 gals. day average.

CONCENTRATION OF POLLUTANTS:

	AVERAGE
TOTAL CYANIDE	6.0 mg/l
CHROMIUM	19.0 mg/l
NICKEL	.5 mg/l
ZINC	34.8 mg/l

Above metal valves represent samples taken by Elson Killam Associates on 6-3-80 and the total cyanide by A.T. Marinaro Associates on 3-1-79. Additional pre-treatment will be necessary to bring these pollutants into compliance.

946020353

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONES: (201) 589-0344 & 589-0345

COMPLIANCE SCHEDULE

PHASE		Approx. tim of completio
1.	We have received quotations from R.M.B. Corp., and D.M.P. Corporation for a destruct system to bring us into compliance. However, since these types of systems present a problem with hazardous waste we are now exploring a closed loops recovery process.	
2.	Investigate & Develop pre-treatment alternatives	4 months
3.	Internal Review	2 months
4.	Contract for Equipment	4 months
5.	Commence construction and inplant changes	2 months
6.	Complete construction	6 months
7.	Obtain operational status	2 months

Yours very truly,

Frank Borriello

Frank Borriello
President

946020354

133-8360

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONES: (201) 589-0344 & 589-0345

January 27, 1983

Passaic Valley Sewerage
Commissioners
600 Wilson Avenue
Newark, NJ 07105

Dear Mr. D'Ascensio:

This is to inform you that in the next thirty days we are planning to make a change in our zinc plating process on our automatic barrel machine, in building #22. We are going to convert to a chloride bath which is less toxic then the conventional sodium cyanide type.

This bath, being an acid bath, should lower the PH in the effluent.

Sincerely yours,

Frank Borriello

Frank Borriello
President

FB/mg

RECEI
JAN 28 1983
PASSAIC VALLEY SEWERAGE COMMISSIONERS

1/31/83
To: M. Graglia
Pls follow up
JDD.

946020356

CHEMTECH
CONSULTING GROUP INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

130-2691

RECEIVED
MAR 27 1981
PASSAIC VALLEY SEWERAGE COMMISSIONERS

Environmental Protection Agency, Region II
26 Federal Plaza
New York, N.Y. 10007

Attn: Mr. Julio Morales-Sanchez
Director, Enforcement

Dear Mr. Morales-Sanchez:

In conjunction with A.T. Marinaro and Associates, we have completed the waste survey for the following client, as scheduled in the "Industrial User Pretreatment Base Line Report - Electroplating Category", submitted October 6, 1980.

Chemtech has prepared the enclosed "follow-up" wastewater analysis for samples submitted by:

Automatic Plating Methods
347 Ferry Street
Newark, New Jersey 07105

Based on the results of the analysis, compliance of the Pretreatment Standards has not been achieved.

Very truly yours,

CHEMTECH CONSULTING GROUP, INC.

Joseph B. Hellmann

Joseph B. Hellmann, P.E.
Chief Engineer

JBH:ar

946020358

CHEMTECH
CONSULTING GROUP, INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

February 5, 1981

A.T. Marinaro
79 Barnsdale Road
Madison, NJ 07940

Attn: A.T. Marinaro

PROJ. NO.:01053

REF.: Auto Methods

LABORATORY REPORT

TEST / SAMPLE DESCRIPTION	Units	246	247	248	249
pH	Units	11.6	11.2	11.2	10.7
Cadmium	mg/l	0.02	<0.005	0.30	<0.005
Chromium, total	mg/l	2.45	<0.01	1.80	<0.01
Cyanide, total	mg/l	95.4	6.30	81.2	<0.01
Zinc	mg/l	189	1.64	140	1.42
Date Received		1-21-81	1-21-81	1-21-81	1-21-81

REMARKS:

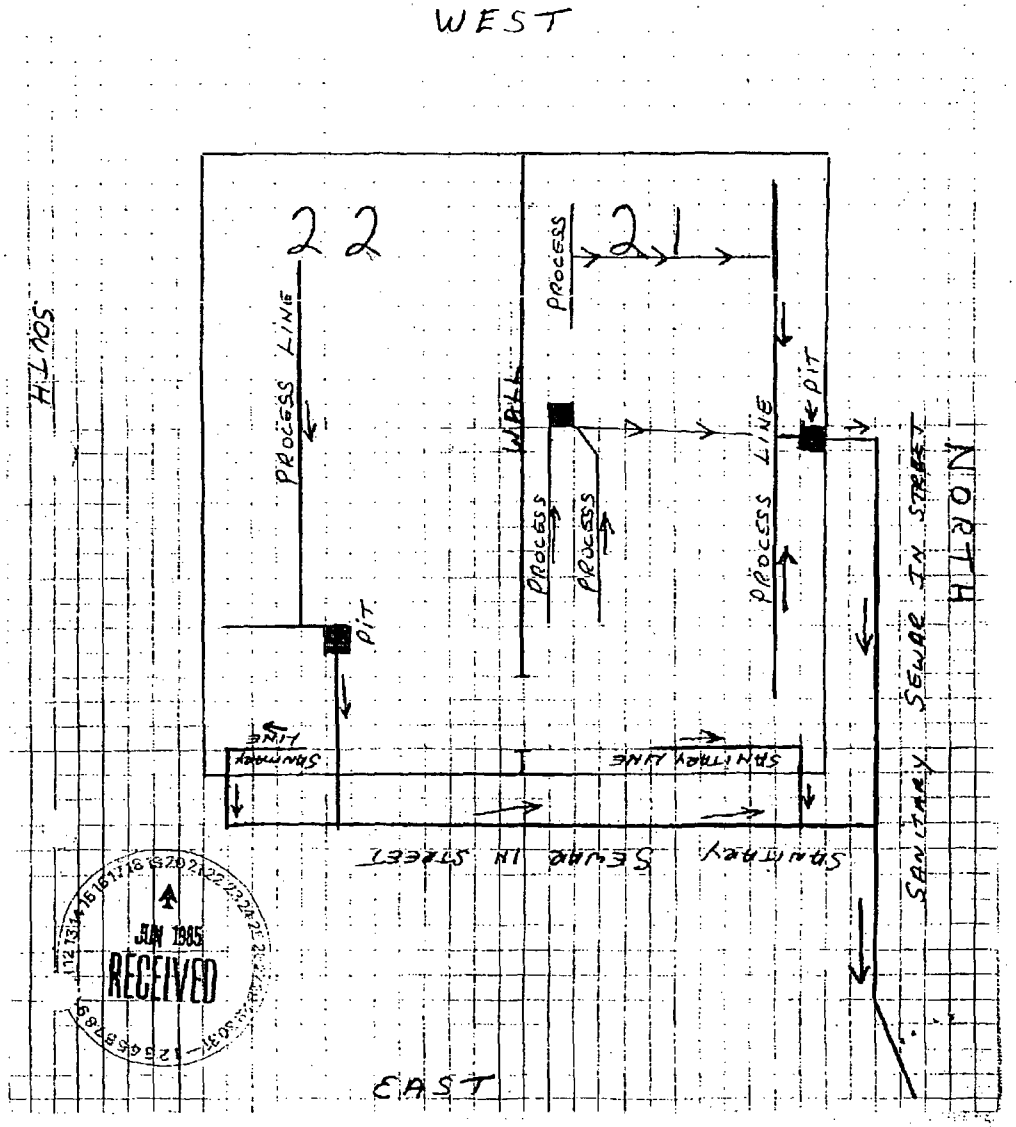
Igor Drnovsek
Supervisor, Laboratory Services

946020359

SEWAR LINES FOR 130-5474

AUTOMATIC ELECTRO PLATING CORP.

JUNE 18-85



JUN 1985
RECEIVED

946020361

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A–MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	AUTOMATIC ELECTRO PLATING CORP.
Number & Street	401b	185 FOUNDRY ST. BLDG 21
City	401c	NEWARK
County	401d	ESSEX
State	401e	NEW JERSEY
Zip Code	401f	07105

2. Primary Standard Industrial Classification Code (see instructions) — 402: 3471

3. Principal Product or Raw Material (see instructions)

			Quantity	Units (See Table III)
Product	403a	PLATING	403c	403e
Raw Material	403b	CYANIDE, CAUSTIC SODA, ACIDS	403d	403f

4. Flow Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a: .048 MG thousand gallons per day
   - 404b: ☐ Intermittent (int) ☒ Continuous (con)

5. Pretreatment Provided Indicate if pretreatment is provided prior to entering the municipal system — 405: ☐ Yes ☒ No

A

6. Characteristics of Wastewater (see instructions)

406a Parameter Name	COLOR	TS	TSS	TURB.	OIL & GREASE	CHLOR.	SULFATES	BOD	COD
406b Parameter Number	00100	00500	00530	00070	00550	00940	00945	00310	00340
Value	400	2010	239	65	1	58	490	13	373
TOC	As	Cd	Cr (tot)	Cu	Pb	Ni	Zn		
00680	01002	01027	01034	01042	01051	01067	01092		
13	001	064	19.1	525	095	508	34.8		

946020363

*Automatic Electric – 1/29/80
Sun Chemical – are fed from
Fleet Auto (sanitary) Main Meter
(2 MAN operation)
Acct # 04-737-6303-00.
Meter # 4010777
*Billed To Foundry St Corp.
LANDLORD SAME OWNER.
AUTOMATIC & SUN CHEMICAL HAVE
OWN METERS COMING OFF MAIN, for
Seperate water consumption, Letter to follow
AUTOMATIC METER # 15.7557436

946020364

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A—MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	Automatic Electro Plating Corp.
Number & Street	401b	185 Foundry Street (Bldg. #21)
City	401c	Newark
County	401d	Essex
State	401e	New Jersey
Zip Code	401f	07105

2. Primary Standard Industrial Classification Code (see instructions) — 402: 3471

Superseded 9/87

3. Principal Product or Raw Material (see instructions)

			Quantity	Units (See Table III)
Product	403a	Plate zinc, nickel and chrome parts	403c	403e
Raw Material	403b	caustic, nickel, hydrocloric acid, sulfuric acid & cn	403d	403f

4. Flow Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a: 48.7 thousand gallons per day
   - 404b: ☐ Intermittent (int) ☑ Continuous (con)

5. Pretreatment Provided Indicate if pretreatment is provided prior to entering the municipal system — 405: ☑ Yes ☐ No

(A)

6. Characteristics of Wastewater (see instructions)

406a	Parameter Name	COLOR	TS	TSS	TURBIDITY	OIL & GREASE	CHLORIDES	SULFATES	BOD	COD
	Parameter Number	00080	00500	00530	00070	00550	00940	00945	00310	00340
406b	Value	400	2010	239	65.0	1.0	58.0	490	13.0	373
	TOC	Cd	Cr(tot)	Cu	Pb	Ni	Zn	As	Hg	
	00680	01027	01034	01042	01051	01067	01092	01002	71900	
	13.0	0.035	14.5	1.21	0.171	2.89	35.0	0.001	0.040	

946020366

File
185
Foundry

120-3121

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONES: (201) 589-0344 & 589-0345

July 6, 1981

RECEIVED
JUL 10 1981
PASSAIC VALLEY SEWERAGE COMMISSIONERS

Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, N.J. 07105

Gentlemen:

We are late with our sampling project due to changes we have been trying to make in our plant. We have been trying to construct a common sampling pit and have two streams going into it, to cut down our cost for analytical work.

Dante Construction told us that due to the way the floors slope it would be too costly to chop out the floors and go under the building foundation in order to gravity feed to a common pit. We have been trying to valuate the use of a pump to get to a common sampling pit.

On July 20, we will be closed for vacation, during this time we are going to change part of our zinc plating solutions from cyanide to the acid type which will allow us to cut down on approximately 50% of the cyanide we now use.

We would like permission to start sampling as of August 3, 1981. We feel that samples taken prior would be of no value due to these changes.

Very truly yours,

Frank Borriello

Frank Borriello
President

OK
V.O.
Spoke to Mr Borriello
7/1/81

946020368

PASSAIC VALLEY SEWERAGE COMMISSIONERS

SEWER CONNECTION PERMIT

PERMIT # 20401122

(Please use the Permit Number on any correspondence with PVSC)

In compliance with the provisions of the Federal Water Pollution Control Act, its amendments, the Clean Water Act and the Rules and Regulations of the Passaic Valley Sewerage Commissioners:

SUPERSEDED

is authorized to discharge from a facility located at

185 Foundry Street

Newark, New Jersey 07105

to the Passaic Valley Sewerage Commissioners Treatment Works in accordance with discharge limitations, monitoring requirements and other conditions set forth herein.

Effective Date 7/30/81

Expiration Date 7/30/86

PASSAIC VALLEY SEWERAGE COMMISSIONERS

by: _____
Executive Director

946020370

CONDITIONS

A. General Prohibitions

(1) No person shall discharge or deposit or cause or allow to be discharged or deposited into the treatment works or public sewer any waste which contains the following:

(A) Explosive Mixtures. Pollutants which create a fire or explosion hazard to the treatment works, collection system or to the operation of the system. Prohibited materials include, but are not limited to, gasoline, kerosene, naphta, benzene, toluene, xylene, ethers, etc.

(B) Corrosive Wastes. Any waste which will cause corrosion or deterioration of the treatment works. All wastes must have a pH not less than 5. Unless otherwise stated in the Sewer Connection Permit, all waste shall have a pH not more than 10.5. Prohibited materials include, but are not limited to, acids, sulfides, concentrated chloride or flouride compounds, etc.

(C) Solid or Viscous Wastes. Solid or viscous wastes which would cause obstruction to the flow in a sewer, or otherwise interfere with the proper operation of the treatment works. Prohibited materials include, but are not limited to, uncomminuted garbage, bones, hides or fleshings, cinders, sand, stove or marble dust, glass, etc.

(D) Oils and Grease. (a) any industrial wastes containing floatable fats, wax, grease or oils. (b) any industrial wastes containing more than 100 mg/l of emulsified mineral oil or grease.

(E) Noxious Material. Noxious or malodorous solids, liquids or gases, which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life, or are or may be sufficient to prevent entry into a sewer for its maintenance and repair.

946020371

(F) Radioactive Wastes. Radioactive wastes or isotopes of such half life or concentration that they do not comply with regulations or orders issued by the appropriate authority having control over their use and which will, or may, cause damage or hazards to the treatment works or personnel operating the system.

(G) Excessive Discharge Rate. Industrial wastes discharged in a slug of such volume or strength so as to cause a treatment process upset and subsequent loss of treatment efficiency.

(H) Heat. (a) any discharge in excess of 150°F (65°C) (b) Heat in amounts which would inhibit biological activity in the PVSC treatment works resulting in a treatment process upset and [illegible] of treatment efficiency, b[illegible] heat be introduced into the PVSC treatment works in such quantities that the temperature [illegible] effluent waters at the treatment plant exceed 40°C (104°).

SUPERSEDED

(I) Unpolluted Waters. Any unpolluted water including, but not limited to, cooling water or uncontaminated storm water, which will increase the hydraulic load on the treatment system, except as approved by PVSC.

(J) Water. Any water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limits.

(2) No person shall discharge or convey, or permit to be discharged or conveyed, to the treatment works any wastes containing pollutants of such character or quantity that will:

(A) Not be susceptible to treatment or interfere with the process or efficiency of the treatment system.

(B) Violate pretreatment standards. As pretreatment standards for toxic or other hazardous pollutants are promulgated by USEPA for a given industrial category, all industrial users within that category must immediately conform

946020372

to the USEPA timetable as well as any numeric limitations imposed by USEPA. In addition, an industrial user shall comply with any more stringent standards as determined by PVSC or other agency.

(C) Cause the PVSC treatment plant to violate its NPDES permit, applicable receiving water standards, permit regulating sludge which is produced during treatment or any other permit issued to PVSC.

B. INSTALLATION OF SAMPLERS

The permittee shall install - 24 hour composite sampler on outlets 1 & 2 acceptable to PVSC with attachments for affixing seals,

which shall be maintained in proper working order at all times. The installed samplers shall draw a sample, which shall be representative of plant waste, in accordance with the monitoring schedule contained in Section C, Page (s) 5 & 6 of 14.

946020373

FMF000394

C. EFFLUENT LIMITATIONS, MONITORING AND COMPLIANCE REQUIREMENTS

1. During the period beginning (7/30/81) and lasting through (7/30/86) the permittee is authorized to discharge from outlet(s) number(s) (20401121-44100-0201).

Such discharges shall be monitored by the permittee as specified below. Outlet #1. Volume for user charge to be determined from Water Consumption data less 5% Credit for evaporation. Outlet has separate water consumption meter.

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30 Day Average	7 Day Average	Measurement Frequency	Sample Type	Reporting Period
BOD (0310)	xxxxxxxxxxx	xxxxxxxxxxxx	Twice/Month	*24 hr. comp.	Quarterly
TSS (0530)	xxxxxxxxxxx	xxxxxxxxxxxx	Twice/Month	*24 hr. comp.	Quarterly
VOLUME	xxxxxxxxxxx	xxxxxxxxxxxx	Once/Month	xxxxxxxxxxx	Quarterly

*Sampling has commenced.

SUPERSEDED

Rev: 2/83

946020374

FMF000395

C. EFFLUENT LIMITATIONS, MONITORING AND COMPLIANCE REQUIREMENTS

1. During the period beginning (7/30/81) and lasting through (7/30/86) the permittee is authorized to discharge from outlet(s) number(s) (20401122-44100-0201). Such discharges shall be monitored by the permittee as specified below. Outlet #2. Volume for user charge to be determined from Water Consumption data less 5% Credit for evaporation. Outlet has separate Water Consumption Meter.

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	XXXXX XXXXXXXX	XXXXXXXX	MEASUREMENT FREQUENCY	SAMPLE TYPE	REPORTING PERIOD
BOD (0310)	xxxxxxxxxx	xxxxxxxxxx	Twice/Month	24 hr. comp.	Quarterly
TSS (0530)	xxxxxxxxxx	xxxxxxxxxx	Twice/Month	24 hr. comp.	Quarterly
VOLUME	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxx	Quarterly
pH	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	Continuous Recorder	**

*Sampling has commenced.

**Permittee to store Recorder charts and have available for PWC Personnel on demand.

Rev: 2/83

946020375

AUTOMATIC ELECTRO PLATING

2. In addition to the monitoring required in Section C.1. the Permittee is required to meet the following schedule of compliance:

A. INSTALLATION OF MONITORING EQUIPMENT

8-3-81 - Commence daily sampling of discharge.

9-1-81 - Permittee to install pH monitoring equipment with recorder chart on each outlet and submit charts to PVSC twice a month.

9-1-81 - Permittee to submit schematic diagram of [illegible] PVSC.

B. When Final Pretreatment stand[illegible] review baseline report [illegible] final regulation. [illegible] compliance schedule are [illegible] report in accordance [illegible] revision.

SUPERSEDED

946020376

946020377

D. Monitoring and Reporting

1. Monitoring results obtained during the previous 3 months shall be reported on the designated Discharge Monitoring Report, PVSC Form MR-1 or 2. Reports are due January 21, April 21, July 21, October 21. The first report is due on (*). If an Industrial user fails to submit Form MR-1 or 2 on a timely basis, the Executive Director shall estimate the use for the period. The estimates may be made 30 days after the due date of the report, except for the fourth quarter where the estimates may be made after October [illegible]. Properly signed reports required herein shall be [illegible] to PVSC at the following address:

   Executive Director
   Passaic Valley Sewerage Commissioners
   600 Wilson Avenue
   Newark, NJ 07105

   SUPERSEDED

2. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

3. Test Procedures:

   Test procedures for the analysis of pollutants shall conform to regulations contained in the PVSC Rules and Regulations, Federal, State and local laws or regulations.

4. Recording of Results:

   For each measurement of a sample taken pursuant to the requirements of this permit, the permittee shall maintain a record of the following information:

   a) The date, exact place and the time of sampling;

   b) The dates the analyses were performed;

   c) The person(s) who performed the analysis;

   d) The analytical techniques or methods used; and

   e) The results of all required analyses.

*Permittee has been submitting monitoring reports since 8/15/81.

946020378

5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using the approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Forms (PVSC Form MR-1 or MR-2). Such increased frequency shall also be indicated.

6. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of (5) years.

7. Definitions

a) The "30 day average" discharge means the average of daily values for 30 consecutive monitoring days. For the purpose of enforcement of Pretreatment Standards, consecutive samples taken and analyzed shall be considered as being taken on consecutive days even though one or more non-sampling days intervene. In applying the Pretreatment Standards where more than one but less than 30 samples have been taken and analyzed during any month, a formula, specified by USEPA, will be used to calculate the "30 day average".

b) The "daily maximum" discharge means the highest discharge by weight or other appropriate units, as specified herein, during any caldendar day.

c) The "Daily" - each operating day.

d) "Weekly" - one day each week during a normal operation day

e) "Monthly" - one day each month during a normal operating day.

f) "Composite" - a combination of individual samples obtained at regular intervals over the entire discharge day.

946020379

The volume of each sample shall be proportional to the discharge flow rate unless specifically modified by PVSC. For a 24 hour continuous discharge, a minimum of 24 individual samples shall be collected at equal intervals and at least once per hour. For continuous discharges of 12 to 24 hours, individual samples shall be taken at equal intervals and at least once per hour. For continuous discharges of less than 12 hours, individual samples shall be taken at least once every 30 minutes. For discharges which are not continuous, individual samples shall be taken such that they will be representative of plant waste.

g. "Grab" - an individual sample collected in less than [illegible] minutes.

h. "Quarterly" - every three (3) months.

i. "N/A" - not applicable.

SUPERSEDED

E. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or modification which will result in new, different, or increased discharges of pollutants must be reported by submission of a new PVSC Sewer Connection Application or, if such changes will not violate the effluent limitations specified in this permit, by notices to PVSC of such changes. Following such notices, the permit may be modified to specify and limit any pollutants not previously limited.

946020380

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall notify PVSC within 24 hours of the occurrence. If this report is made orally, a written report containing the following information, shall be submitted within five (5) working days:

a. a description of the discharge and the cause of the period of noncompliance;

b. the period of noncompliance, including exact dates and times, or, if not corrected, the anticipated time the noncompliance is expected to continue, and

c. the steps being taken to reduce, eliminate and prevent a recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all pretreatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the PVSC Treatment Works resulting from noncompliance with any pretreatment limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. This condition in no way affects PVSC's right to suspend a permit in order to stop a discharge which presents an imminent or substantial hazard to the public health, safety or

946020381

welfare to the local environment or which interferes with the operation of the PVSC Treatment Works.

5. Removed Substances

Solids, sludges, filter backwash or other pollutants or hazardous waste removed in the course of pretreatment or control of wastewaters and/or the treatment of intake waters shall be disposed of in accordance with applicable Federal, State and local laws and regulations. Records documenting such disposal shall be made available to PVSC for review upon request.

F. MANAGEMENT RESPONSIBILITIES

SUPERSEDED

1. Right of Entry

The permittee shall allow the authorized representatives of PVSC, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring methods required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall, in writing, notify the succeeding owner or controller of the existence of this permit, and the need to apply for a new permit, a copy of which shall be forwarded to PVSC.

946020382

3. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, or revoked in whole or in part during its terms for cause including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

4. Toxic Pollutants

Notwithstanding (Section C), above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition), is established under Section 307 (b) of the Federal Water Pollution Control Act (the Act), its amendments, or any other subsequent law or regulation, for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

5. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

6. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to

946020383

any applicable State Law or regulation under authority preserved by Section 510, of the Federal Water Pollution Control Act. (The Act)

7. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

8. Severability

The provisions of this permit are severable [illegible] provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

SUPERSEDED

946020384

MEMORANDUM

APR 0 3 1986
DEPT. ENVIRONMENTAL PROTECTION
DIVISION WATER RESOURCES
BUR. OF IND. WASTE MGMT.

TO: MARY JO AIELLO, PRINCIPAL ENVIRONMENTAL ENGINEER
INDUSTRIAL PRETREATMENT SECTION

FROM: RICHARD J. KATZ, ASSISTANT CHIEF, BISE

SUBJECT: METAL FINISHERS, ELECTROPLATERS AND PRINTED CIRCUIT BOARD MANUFACTURERS
SIC CODES 3471, 3679

Company Name: AUTOMATIC ELECTRO-PLATING CORP.

Address: 185 FOUNDRY STREET
NEWARK, N.J. 07105

ECRA Case #: 85708 Case Manager: FRANK GROMAN JR.

SIC Code 3471 Date Referred: APRIL 4 1986

The above company has filed an ECRA application with the Bureau of Industrial Site Evaluation for:

[ ] Cessation of Operations

[ ] Sale of Property

[ ] Transfer of Operations - New Address _____

[X] Other SALE OF BUSINESS.

If you have any questions or information about the above company, please contact the Case Manager at 3-7141 or 3-6690.
dr
attachments

NOTE: AGREEMENT OF SALE TRIGGERING ECRA ACTIVITY HAS BEEN TERMINATED. SELLER IS TRYING TO FIND A NEW BUYER.

946020386

Automatic Electroplating
187 Foundry St
Newark, N.J.

As per Joseph Boriello owner of Automatic Electroplating he told me he lost the sale because E.C.R.A. took to long to investigate his company. He told me he has another potential buyer and as soon as deal is consummated he would notify P.V.S.C. - He said if this business is not sold they would have to liquidate because they cannot support their business with the demands of EPA + DEP.

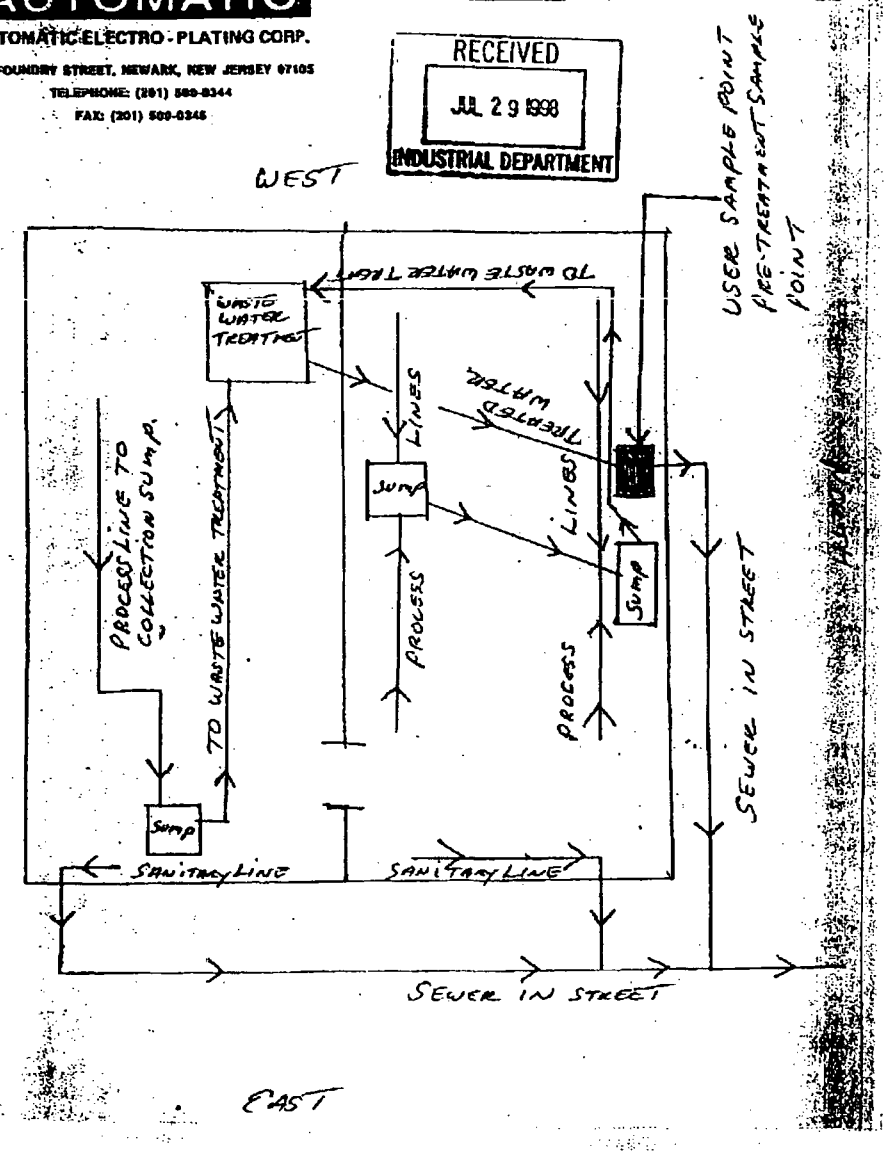
946020387

6-12-97

NEW SAMPLE POINT FOR LOCAL LIMITS

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
165 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONE: (201) 589-8344
FAX: (201) 589-0346

RECEIVED
JUL 29 1998
INDUSTRIAL DEPARTMENT



946020389

file complete

PASSAIC VALLEY SEWERAGE COMMISSIONERS INDUSTRIAL 120-339
APPLICATION FOR A SEWER USE PERMIT

8110 8115 8120 8205

FEB 2 2001

SECTION A

1. Company Name AUTOMATIC ELECTRO-PLATING CORP.
2. Permit Number if applicable: 20200015-1
3. Location: 157 Foundry Street Bldg. #21
   Newark, NJ Zip Code: 07105
4. Mailing Address 185 Foundry Street -Bldg. #21
   Newark, NJ Zip Code: 07105
5. Person to contact concerning information provided in this application:
   Name of Contact Official: Gerald Borriello
   Title: Chief Executive Officer Phone No. (973) 589-0344
   Address 185 Foundry St., Newark, NJ Zip code 07105
6. Number of Employees – Full Time: 15 Part Time: 1
   Number of Work Days Per Year: 308
   Number of Shifts Per Day: 1
7. If property is owned indicate block and lot number(s):
   N/A
   Assessed Value: _____ 19 _____
8. If property is rented indicate name and address of owner:
   Foundry Street Corp.
   185 Foundry Street, Newark, NJ 07105
   Total square feet rented: 17,000 Approx.
9. List NJPDES Permit Number if applicable, N/A and
   Name of receiving Body of Water entered _____

946020391

SECTION B

WATER DATA

10. Water Source: (Circle all appropriate answers)

Purchased	(Y) - N		
Well	Y - (N)	If Y, is it metered	Y - N
River	Y - (N)	If Y, is it metered	Y - N

11. Name of purchased water supplier: City of Newark

List all Account #'s: 0013884

12. Water Received: From Mo. Jan. Yr. 2000 Through Mo. Dec. Yr. 2000

(* Next to a figure means it is estimated).

	PURCHASED	WELL	RIVER	TOTAL
1st Qtr.	594,884 gals.			594,884 gals
2nd Qtr.	578,278 gals.			578,278 gals.
3rd Qtr.	584,188 gals.			584,188 gals.
4th Qtr.	524,273 gals.			524,273 gals.

GRAND TOTAL 2,281,623 gals.

Report in gallons

13. Water Use and Disposition (*Next to a figure means it is estimated).

	Gallons Sanitary/Combined Sewer	Discharged Stormwater/River/ Ditch	Gallons Used Other
Sanitary service only	109,207 gals.	None	
Process waste waster	2,063,796 gals.	None	
Cooling water	None	None	
Evaporation			108,620 gals. (5%)
Contained in the product			
Other (describe)			

GRAND TOTAL 2,281,623 gals.

946020392

SECTION B (continued)

14. Process wastewater which is discharged as above is metered as follows:

To the Separate Sanitary Sewer	(Y) - N
To the Combined Sewer	Y - (N)
To the Storm Sewer	Y (N)
River or Ditch	Y (N)

15. Waste hauler information: List all firms and/or independent contractors used to remove process waste or sludge from this facility.

Contractor	Address	Icc #	Waste type handled
Transport Roller LTEE	910 Blvd. Lionel Boulet Varennes PQ J3Y 1P7 Canada	EPA# NYF006000053	Water treatment sludge

SECTION C

OPERATIONAL CHARACTERISTICS

16. Discharge of Industrial Waste is continuous Yes. 8 hours daily.

or intermittent _____ each operating day.

If the discharge is intermittent, it occurs between the following hours: _____

17. Brief description of Manufacturing or other activity performed: Electro-Plating Zinc and Nickel.

List SIC CODE #: 3471

18. Principal Raw Materials used: Potassium Chloride, Nickel salts, Mineral Acids, Alkaline cleaners.

19. Principal Products or Services: Electroplate steel parts.

946020393

20. Describe seasonal variations, if significant, giving dates, volumes, rates, hours, etc. Include variations in product lines which affect waste characteristics: None

Does this facility shutdown for vacation(s)? No If so, is it basically the same time each year. _____ Provide dates usually shutdown _____

SECTION D

MONITORING

21. Describe any pretreatment process or effluent monitoring system in use:

Outlet 20200015-1 Evaporation, chemical precipitation pH control

Outlet _____

Outlet _____

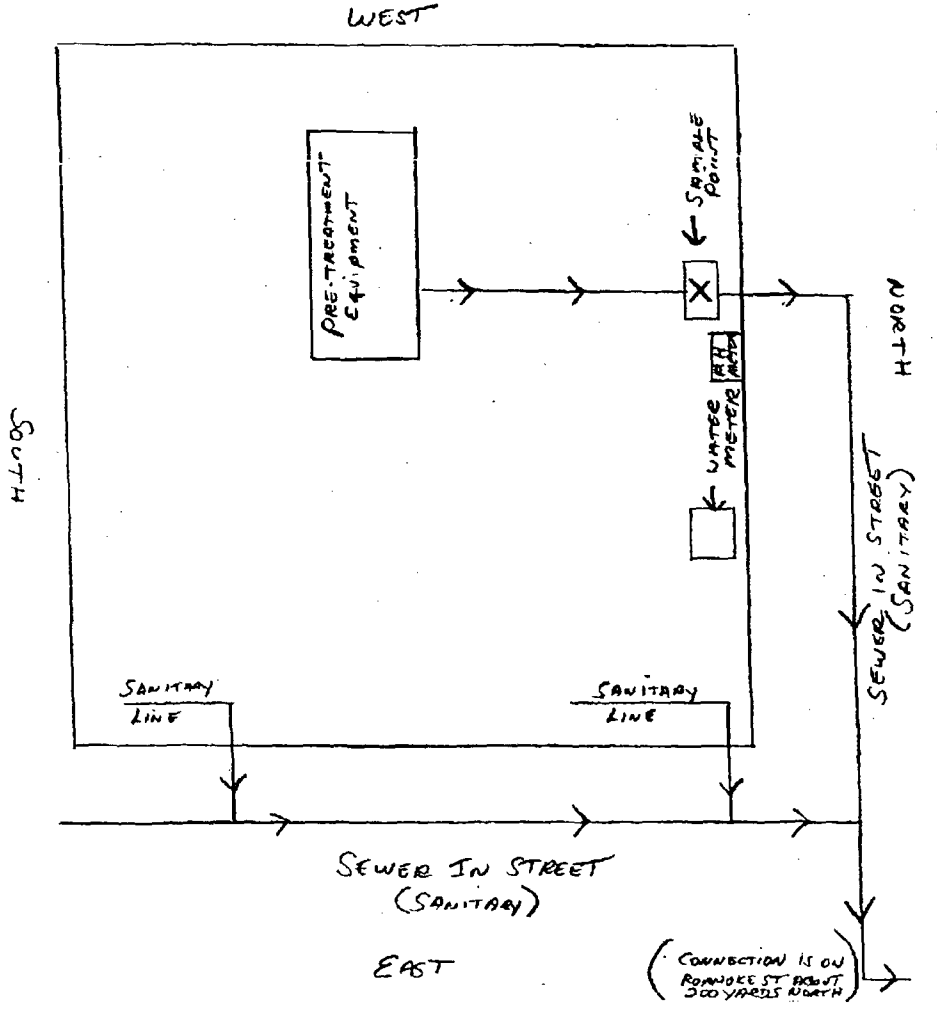
22. Sampling information:

Outlet	Contains Industrial Waste	Sampler Type	Refrigerated
20200015-1	Yes	Peristalic sampler	Yes

946020394

PLOT PLAN JANUARY 2001

AUTOMATIC
AUTOMATIC ELECTRO - PLATING CORP.
186 FOUNDRY STREET, NEWARK, NEW JERSEY 07105
TELEPHONE: (973) 589-0344
FAX: (973) 589-0345



946020395

SECTION D (continued)

23. Volume Information:

Outlet	Daily Flow (Gallons)	Metered (Y - N)	Type	Date
20200015-1	6,943 gals.	Yes		

24. Frequency of calibration of each flow meter: N/A

25. Attach plot plan of the property showing:

(a) all existing or proposed sewer and drain lines (including outlets to a storm sewer, river or ditch);

(b) sample point(s); Monitoring or Pretreatment Equipment; Incoming meter(s); Well meter(s); Internal meter (s); Flowmeter(s).

(c) details of the connection(s) to the municipal (or PVSC) sewer, including the distance and direction of each connection from the nearest street intersection.

346020396

SECTION E

ANALYSIS OF INDUSTRIAL WASTE

26. Analysis for Industrial Waste must be a proper sample taken for each outlet.

OUTLET NO. 20200015-1 1/4/01

Report to the nearest unit: XX. Except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX Except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)		1097*	Antimony (Sb)	N/A
0500	Total Solids	3000 X	1002*	Arsenic (As)	N/A
0505	Volatile Solids	540 X	1022*	Boron (B)	N/A
0530	Total Suspended Solids	6 X	1027	Cadmium (Cd)	X <0.005
0540	Volatile Suspended Solids	6 X	1034*	Chromium Total (Cr)	N/A
0555	(1)(3) Petroleum Hydrocarbons	5 X	1042	Copper (Cu)	X 0.02
0310	Biochemical Oxygen Demand (BOD)	X 15	1045*	Iron (Fe)	N/A
			1051	Lead (Pb)	X <0.1
0340	Chemical Oxygen Demand (COD)	<20 X	0720*(3)	Cyanide (Cn)	X <0.01
			1900	Mercury (Report to 0.XXX)	X 0.004
0680	Total Organic Carbon (TOC)	9 X	1067	Nickel (Ni)	X 0.03
			1147*	Selenium (Se)	N/A
9000	pH(standard unit range)	8.7 X	1077*	Silver (Ag)	N/A
0610	(1) Ammonia as N	4.1 X	1102*	Tin (Sn)	N/A
0550	(1)(3) Total Oil & Grease	5 X	1092	Zinc (Zn)	X 0.91
0745*	(1) Sulfide	N/A	2730	Phenol	0.004 X
0507*	(1) Ortho Phosphates as P	N/A	4053*	Pesticides (Report to 0.XXX)	N/A
0625*	(1) Kjeldahl N as N	N/A	0940*	Chlorides	N/A
9998*	(2)(3) TTO (Report to 0.XXX)	N/A	9999*(3)	TTVO (Report to 0.XXX)	N/A

FOOTNOTES:

(1) Report results to the nearest tenth, i.e., 1.6 mg/l.
(*) Analyze for this if reasonably expected to be present in the discharge unless otherwise exempted.
(2) See instructions.
(3) Grab sample required

Rev: 1/87
8/89
7/90
9/94
8/95
11/95
07/98

9460203 97

DATE: 1/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 00501047
Client I.D.: AUTOMATIC ELECTROPLATING CORP.

APPROVAL: PFF
QC: DD DL
Lab I.D.: 10170
Sampled by: Client

ID:00501047 Mat:Water 5 YEAR PERMIT RENEWAL DISCHARGE PIT 730-0730H 01/04/01 C

	PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
	BOD5	15mg/l	01/05/01		WD3184
	COD	<20mg/l	01/09/01		WD3215
	Ammonia-Nitrogen	4.1mg/l	01/09/01		WD3216
	TOC	9mg/l	01/15/01		WD3313
	Total Phenols	0.006mg/l	01/15/01		WD3275
	Total Solids	3000mg/l	01/09/01		WD3234
	Total Suspended Solids	6mg/l	01/08/01		WD3207
	Total Volatile Solids	540mg/l	01/09/01		WD3234
	Total Volatile Suspended Solids	6mg/l	01/08/01		WD3207
Total	Cadmium	<0.005mg/l	01/15/01		WD3204
Total	Copper	0.02mg/l	01/15/01		WD3204
Total	Lead	<0.1mg/l	01/15/01		WD3204
Total	Mercury	0.0004mg/l	01/09/01		WD3186
Total	Nickel	0.03mg/l	01/15/01		WD3204
Total	Zinc	0.91mg/l	01/15/01		WD3204

ID:00501048 Mat:Water 5 YEAR PERMIT RENEWAL DISCHARGE PIT 1320H 01/04/01 C

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
pH	8.7SU	01/05/01	17	WD3139
Amenable Cyanide	<0.01mg/l	01/16/01		WD3284
Oil & Grease (Hexane)	5mg/l	01/23/01		WD3383
Total Cyanide	<0.01mg/l	01/16/01		WD3284
Petroleum, TPH by EPA Method 418.1	5mg/l	01/26/01		GA0517

946020398

946020399

Upstate Laboratories, Inc.
6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 - Fax 437 1209

Chain Of Custody Record

Client:	Client Project # / Project Name	No. of Containers	Special Turnaround Time (Lab Notification required)
Automatic Electroplating Corp	5 year Permit Renewal		

Client Contact:	Phone #	Site Location (city/state)
George Scott	589-0341	Newark, NJ

Sample Location:	Date	Time	Matrix	Grab or Comp.	[redacted]	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
Discharge Pit	1-3-01 1-3-01	7:55 PM 7:20 PM	Wastewater	Comp		5											
" "	1-4-01	1:20 PM	"	GRAB		4											

parameter and method	sample bottle: type	size	pres.
1) TS, TSS, VS, VSS, BOD5	Plastic	1/2 GAL	None
2) COD, AMMONIA AS N	"	500mL	H2SO4
3) Total Phenols	GLASS	liter	H2SO4
4) TOC	Plastic	100mL	HCL
5) Total Zn Cd, Pb, Ni, Zn, Cu, Hg	"	500mL	HNO3
6) pH	"	120mL	—
7) OIL + Grease EPA 1664	Glass	Quart	H2SO4
8) TPH EPA 418.1	"	liter	—
9) Total + Amenable Cyanide	Plastic	1/2 GAL	NaOH
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print)

Company: Automatic Electroplating Corp

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	1-04-01	1:25 PM	[signature]
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

SECTION E (continued)

Samples collected by: Michael O'Rourke

Date: 1/4/2001

Sample analyzed by: Upstate Laboratories Inc. Date: 1/5/01 thru 1/26/01

Products being manufactured when sample was collected: Zinc and Nickel Plating

27. Who performs the analyses of the samples for User Charge? Upstate Laboratories, Inc.

28. Is the Laboratory certified by NJDEP to conduct all the analyses? Y - N Yes

29. Who performs the analyses of the samples for the Pretreatment Parameters? Upstate Laboratories, Inc.

If monitoring has not commenced for Pretreatment, indicate Laboratory you plan to use. If unknown, so state:

30. Is the Laboratory certified by NJDEP to conduct all the required Pretreatment analyses?

Y - N Yes

31. Based upon knowledge of materials and processes used at this facility check the appropriate box that best describes the potential that a Priority Pollutant, listed on Tables 1,2 & 3 is present in your discharge.

946020400

SECTION F

PRETREATMENT

32. Industrial Category: 40 CRF
    Subpart (s): 413

33. Compliance date(s): April 27, 1984

34. Is facility in compliance? Yes If not, and if compliance date has passed, explain actions being taken to get into compliance:

35. Date Baseline Monitoring Report (BMR) submitted to PVSC: Jan. 7, 1981

36. Compliance schedule submitted: N/A
    If yes is facility on schedule? _____ Explain if compliance date will not be met:

37. Does this facility come under the Resource Conservation and Recovery Act (RCRA)?
    If yes, describe Yes

38. Does this facility have a Spill Prevention Control and Countermeasures (SPCC) plan?
    If yes, describe Yes. All wastewater is contained and treated before discharge to sewer.

39. Has this facility even been cited by NJDEP or EPA for a violation of State or Federal Regulations for the nature of its wastewater discharge? Y - N Yes

40. Is this facility under an ISRA Clean up? NO If so, has a plan been approved by NJDEP:

    Is there any plan to discharge groundwater?
    NO

946020401

AUTOMATIC

AUTOMATIC ELECTRO - PLATING CORP.

185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105

TELEPHONE: (973) 589-0344

FAX: (973) 589-0345

January 30, 2001

UNANIMOUS CONSENT OF THE BOARD OF DIRECTORS OF AUTOMATIC ELECTRO-PLATING CORP., IN LIEU OF SPECIAL MEETINGS OF DIRECTORS.

The undersigned, being all the directors of AUTOMATIC ELECTRO-PLATING CORP., a corporation of the State of New Jersey, do hereby take the following action.

Granting Gerald Borriello the authority to sign the Sewer Connection Application, on behalf of the corporation.

By: _____
Gerald Borriello
Chief Executive Officer

By: _____
George H. Scott
President

946020402

CERTIFICATION*:

The information contained in this application is familiar to me and, to the best of my knowledge and belief, such information is true, complete and accurate.

If the applicant is a corporation, a corporate resolution is attached granting me the authority to sign the application on behalf of the corporation.

Name of signing official: Gerald Borriello

Print Name

TITLE: Chief Executive Officer

1-30-2001

DATE

SIGNATURE

*APPLICATION MUST BE SIGNED BY ONE OF THE FOLLOWING:

a. Principal Officer of Corporation

b. President or Owner of Company

c. General Partner if a Partnership

d. Plant Manager or Authorized Representative

946020403

TABLE 1 EPA PRIORITY POLLUTANTS

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
Acenaphthene			X		2,4 dimethylphenol			X	
acrolein			X		2,4 dinitrotoluene			X	
acrylonitrile			X		2,6 dinitrotoluene			X	
benzene			X		1,2 diphenylhydrazine			X	
benzidine			X		ethylbenzene			X	
carbon tetrachloride (tetrachloromethane)			X		fluoranthene			X	
					4-chlorophenyl phenyl ether			X	
chlorobenzene			X		4-bromophenyl phenyl ether			X	
1,2,4-trichchlorobenzene			X		bis(2-chlorosispropyl) ether			X	
hexachlorobenzene			X		bis(2-chloroethoxy) methane			X	
1,2 dichloroethane			X		methylene chloride(dichloromethane)			X	
1,1,1 trichlorethane			X						
hexachloroethane			X		methyl chloride (chloromethane)			X	
1,1,dichloroethane			X						
1,1,2 trichloroethane			X		methyl bromide (bromomethane)			X	
1,1,2,2 tetrachloroethane			X						
chloroethane			X		bromoform(tribomomethane)			X	
bis(chloromethyl) ether			X		dichlorobromomethane			X	
Bis(2 chloroethyl) ether			X		trichlorofluoromethane			X	
2-chloroethyl vinyl ether mixed			X		dichclorodifuoromethane			X	
2-chloronaphthalene			X		chlorodibromomethane			X	
2,4,6, trichlorophenol			X		hexachlorobutadiene			X	
parachlorometa cresol			X		hexachloracyclopentadiene			X	
Chloroform (trichloromethane)			X		isophorone			X	
2 chlorophenol			X		naphthalene			X	
1,2, dichlorobenzene			X		nitrobenzene			X	
1,3, dichlorobenzene			X		2-nitrophenol			X	
1,4, dichlorobenzene			X		4-nitrophenol			X	
3,3, dichlorobenzidine			X		2,4-dinitrophenol			X	
1,1,dichloroethylene			X		4,6 dinitro-o cresol			X	
1,2 trans-dichloroethylene			X		N-nitrosodimethylamine			X	
2,4,dichlorophenol			X		N-nitrosodiphenlamine			X	
1,2, dichloropropane			X		N-nitrosodi-n-propylamine			X	
1,3, dichloropropylene			X		pentachlorophenol			X	
(1,3 dichelor propene)			X		phenol			X	

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECT TO BE ABSENT

946020404

TABLE 1 EPA PRIORITY POLLUTANTS (continued)

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
bis(2-ethylhexyl) phthalate			X		endrin			X	
butylbenzylphthalate			X		endrin aldahyde			X	
di-n-butylphthalate			X		heptachlor			X	
di-n-octylphthalate			X		heptachlor (epoxide)			X	
diethylphthalate			X		BHC Alpha			X	
dimethylphthalate			X		BHC Beta			X	
benzo(a)anthracene			X		BHC Gamma			X	
benzo(a)pyrene			X		BHC Delta			X	
3,4 benzofluoranthene			X		PCB1242			X	
benzo(k) fluoranthane			X		PCB1254			X	
chrysene			X		PCB1221			X	
acenaphthylene			X		PCB1232			X	
anthracene			X		PCB1248			X	
benzo(ghi)perylene			X		PCB1260			X	
fluorene			X		PCB1016			X	
phenanthrene			X		toxaphene			X	
dibenzo (a,h) anthracene			X		antimony(total)			X	
indeno (1,2,3-c,d) pyrene			X		arsenic (total			X	
pyrene			X		asbestos (fibrous)			X	
tetrachloroethylene			X		beryllium (total)			X	
toluene			X		cadmium (total)		X		
trichloroethylene			X		chromium (total)	X			
vinyl chloride			X		copper (total)		X		
aldrin			X		cyanide (total)			X	
dieldrin			X		lead (total)		X		
chlordane			X		mercury (total)			X	
4,4 DDT			X		nickel (total)	X			
4,4, DDE			X		selenium (total)			X	
4,4, DDD			X		silver (total)			X	
endosulfan I			X		thallium (total)			X	
endosulfan II			X		zinc (total)	X			
endosulfan sulfate			X		2,3,7,8, tetrachlorodibenzo			X	
					p-dioxin			X	

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECT TO BE ABSENT

946020405

TABLE 2 NJDEP EXPANDED PRIORITY POLLUTANTS

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
acrylamide			X		n,n-dimethyl aniline			X	
amitrole			X		3,3-dimethyl benzidine			X	
amyl alcohols			X		1,1-dimethylhydrazine			X	
aniline hydrochloride			X		dioxane			X	
anisole			X		diphynylamine			X	
auramine			X		ethylenimine			X	
benzotrichloride			X		hydrazine			X	
benzylamine			X		4,4-methylene bis			X	
					(2-chloraniline)			X	
o-chloroaniline			X		4,4-methylenedianiline			X	
m-chloroaniline			X		methyl isobutyl ketone			X	
p-chloraniline			X		alpha-naphthylamine			X	
1-chloro-2-nitrobenzene			X		beta-naphthylamine			X	
1-chloro-4-nitrobenzene			X		n-methylaniline			X	
chloroprene			X		1,2- phenylenediamine			X	
chrysoidine			X		1,3- phenylenediamine			X	
cumene			X		1,4-phenylenediamine			X	
2,3-dichloroaniline			X		sudan 1 (solvent yellow 14)			X	
2,4-dichloroaniline			X		thiourea			X	
2,5-dichloroaniline			X		toluene sulfonic acids			X	
3,4-dichloroaniline			X		toluidines			X	
3,5-dichloroaniline			X		xylidines			X	
1,3-dichloropropene			X						
1,3-dimethoxybenzidine			X						

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECT TO BE ABSENT

946020406

TABLE 3 EPA HAZARDOUS SUBSTANCES

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
acetaldehyde			X		isopropanolamine			X	
allyl alcohol			X		kelthane			X	
allyl chloride			X		kepone			X	
amyl acetate			X		malathion			X	
aniline			X		mercaptodimethur			X	
benzonitrile			X		methoxychlor			X	
benzyl chloride			X		methyl mercaptan			X	
butyl acetate			X		methyl methacrylate			X	
butylamine			X		methly parathion			X	
captan			X		mevinphos			X	
carbaryl			X		mexacarbate			X	
carbofuran			X		monoethylamine			X	
carbon disulfide			X		monomethylamine			X	
chlorpyrifos			X		naled			X	
coumaphos			X		napthenic acid			X	
cresol			X		nitrotoluene			X	
crotonaldehyde			X		parathion			X	
cyclohexane			X		phenolsulfanate			X	
2,4-D (2,4-dichlorophenoxy)			X		phosgene			X	
acetic acid			X		propagrite			X	
diazinon			X		propylene oxide			X	
dicamba			X		pyrethrins			X	
dichlobenil			X		quinoline			X	
dichlone			X		resorcinol			X	
2,2-dichloropropionic acid			X		strontium			X	
dichlorvos			X		strychnine			X	
diethylamine			X		styrene			X	
dimethylamine			X		2,4,5-T (2,4,5-trichloro-phenoxy acetic acid)			X	
dinitrobenzene			X		TDE (tetrachloro-diphenylethane)			X	
diquat			X		2,4,5-TP 2(2,4,5-trichlorophenoxy			X	
disulfoton			X		trichlorofon			X	
diuron			X		triethylamine			X	
epichlorohydrin			X		trimethylamine			X	
					propanoic acid			X	

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECT TO BE ABSENT

94602040 7

TABLE 3 EPA HAZARDOUS SUBSTANCES (continued)

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
ethanolamine			X		uranium			X	
ethion			X		vanadium			X	
ethylene diamine			X		vinyl acetate			X	
ethylene dibromide			X		xylene			X	
formaldehyde			X		xylenol			X	
furfural			X		zirconium			X	
guthion			X						
isoprene			X						

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECT TO BE ABSENT

946020408

SUPPLEMENTAL SEWER USE PERMIT APPLICATION QUESTIONNAIRE

The following questionnaire must be completed and submitted by all industrial and tax-exempt users making application for a SEWER USE PERMIT. The purpose of this questionnaire is to identify the correct name of the applicant for service of process and the individual to be contacted in the event of an emergency.

SECTION ONE
(To be completed by all applicants)

NAME OF APPLICANT: State the complete name of the organization applying for a SEWER USE PERMIT ("Permit"), as it appears on the certificate of incorporation, charter, by-laws, partnership agreement or other official document which establishes the name of the applicants (if no such document exists, state the name the business uses):

AUTOMATIC ELECTRO-PLATING CORP.

Name of Applicant

TRADE NAME: Identify all trade names and/or fictitious names that the organization will utilize at the location(s) for which this Permit application is made.

None

Trade Name/Fictitious Name

BUSINESS ORGANIZATION: Please check the appropriate box:

- ☐ Sole proprietorship
- ☐ Partnership
- ☐ Limited Partnership
- ☒ Corporation
- ☐ Other (describe)
- ☐ Trust
- ☐ Joint Venture
- ☐ Non-Profit Corporation
- ☐ Limited Liability Company

EMERGENCY CONTACT PERSON: In the event of an emergency, provide the name, address and telephone number of the person(s) the PVSC can contact:

Name: George H. Scott

Street Address: 30 Chestnut Avenue

City, State & Zip Code: Bernardsville, NJ 07924

Business Telephone: (973) 589-0344

Emergency Telephone: (908) 766-3948

946020409

SECTION TWO

(To be completed only by Corporations and Limited Liability Companies)

REGISTERED AGENT: Identify the name and address of the Corporations's Registered Agent:

Name: J.J. Longley

Company Name:

Street Address: 24 Beechwood Road

City, State & Zip Code: Summit, New Jersey 07902

DATE AND PLACE OF INCORPORATION/FORMATION: Identify the state where the corporation/LLC was organized and the date on which the Certificate of Incorporation/Formation was filed:

State: New Jersey

Date: September 18, 1960

DATE AUTHORIZED IN NEW JERSEY: If other than a New Jersey corporation/LLC, state the date on which the corporation/LLC received a Certificate of Authority to Transact Business in New Jersey (and attach copy).

Date: September 18, 1960

SECTION THREE

(To be completed only by Partnerships or Joint Ventures)

FORM OF PARTNERSHIP: Check One.

☐ General partnership ☐ Limited Partnership

PARTNERS: Identify (by name, residence address, business address and daytime telephone number) each partner or joint venture. (attach additional sheets if necessary):

Name: N/A

Street Address:

City, State & Zip Code:

Name:

Street Address:

City, State & Zip Code:

946020410

SECTION FOUR

(This section to be completed only if the business concern is organized in a form other than a sole proprietorship, corporation, partnership or joint venture—such as a trust or association)

FORM OF BUSINESS ORGANIZATION: Describe how the business entity is organized and under what legal authority it was established. N/A

CERTIFICATION

(All applicants must sign and date the following certification)

I hereby certify the answers supplied in the foregoing SUPPLEMENTAL SEWER USE PERMIT APPLICATION QUESTIONNAIRE are true. I am aware that if any of the foregoing responses are willfully false, I am subject to punishment.

Dated: 1-30-2001

Signature

Gerald Borriello- CEO

Print Title & Position

94602041 1

DIENE G. ALMEIDA
CHAIRMAN

JAMES KRONE
VICE CHAIRMAN

DANIEL F. BRIGHT, ESQ.
FRANK J. CALANDRIELLO
DOMINIC M. CUCCINELLO
PETER A. MURPHY
ANGELINA M. PASERCHIA
THOMAS J. POWELL
DONALD TUCKER
COMMISSIONERS

Passaic Valley
Sewerage Commissioners

600 WILSON AVENUE
NEWARK, N.J. 07105
(973) 344-1800
Fax: (973) 344-2951
www.pvsc.com

ROBERT J. DAVENPORT
EXECUTIVE DIRECTOR

PETER G. SHERIDAN
CHIEF COUNSEL

LOUIS LANZILLO
CLERK

Industrial Fax: (973) 344-4876

RECEIPT FOR

APPLICATION FEE

PERMIT FEE

Received from: Automatic Electroplating Corp

Address: 185 Foundry Street Newark, NJ 07105

Amount of Payment: 750.00

Date of Payment 75 Feb 2, 01

Payment Received by: _____

Signature: [signature]

Amount: 750.00 Date: 2/5/01

94602041 2

PASSAIC VALLEY SEWERAGE COMMISSIONERS INDUSTRIAL 120-799
APPLICATION FOR A SEWER USE PERMIT

8110 ___ 8115 ___ 8120 ___ 8205 ___

FEB 2 2001

SECTION A

1. Company Name AUTOMATIC ELECTRO-PLATING CORP.
2. Permit Number if applicable: 20200015-1
3. Location: 157 Foundry Street Bldg. #21
   Newark, NJ Zip Code: 07105
4. Mailing Address 185 Foundry Street -Bldg. #21
   Newark, NJ Zip Code: 07105
5. Person to contact concerning information provided in this application:
   Name of Contact Official: Gerald Borriello
   Title: Chief Executive Officer Phone No. (973) 589-0344
   Address 185 Foundry St., Newark, NJ Zip code 07105
6. Number of Employees – Full Time: 15 Part Time: 1
   Number of Work Days Per Year: 308
   Number of Shifts Per Day: 1
7. If property is owned indicate block and lot number(s):
   N/A

AUTOMATIC ELECTRO-PLATING CORP
185 FOUNDRY STREET
NEWARK, NJ 07105

2324

Pay to the order of Passaic Valley Sewerage Commissioners Date Jan 30 2001

Seven hundred fifty and 00/100 $750.60 Dollars

PNCBANK
PNC Bank, N.A. 060
New Jersey

For Permit Fee

⑈002324⑈ ⑆031207607⑆ 8012787824⑈

946020413

U.S. Environmental Protection Agency

Envirofacts Data Warehouse

Recent Additions | Contact Us | Print Version EF Search: GO

EPA Home > Envirofacts > Multisystem > Report

MultiSystem Report

Envirofacts

Report an Error

AUTOMATIC ELECTRO PLATING CORPORATION
185 FOUNDRY STREET
NEWARK, NJ 071054297

Map this facility

EPA Facility Information

This query was executed on FEB-10-2006

Toxic Releases for Reporting Year 2003

TRI FACILITY ID: 07105TMTDL185FO

SIC Codes for 2003

SIC CODE	SIC CODE DESCRIPTION
3471	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

Chemicals Transferred to other Sites

CHEMICAL NAME	TRI CHEM ID	DOCUMENT	RELEASE AMOUNTS LBS/YR	RELEASE BASIS CODE	TYPE OF WASTE MANAGEMENT	TRANSFER SITE NAME	TRANSFER SITE CITY

946020415

ZINC COMPOUNDS	N982	1303202071573	250	MONITORING DATA	SOLIDIFICATION/STABILIZATION - METALS AND METAL COMPOUNDS ONLY	STABLEX CANADA	BLAINVILLE

Chemicals Released to Air

There was no data of this type reported for this facility.

Chemicals Released via Underground Injection

There was no data of this type reported for this facility.

Chemicals Released to Land

There was no data of this type reported for this facility.

Chemicals Released to Surface Water

There was no data of this type reported for this facility.

Additional Information can be obtained from the Toxics Release Inventory System TRIS Query.

The Environmental Defense Fund's (EDF) Chemical Scorecard has on-line environmental information regarding this EXIT EPA facility's reported TRI releases. This information resource is not maintained, managed, or owned by the Environmental Protection Agency (EPA) or the Envirofacts Support Team. Neither the EPA nor the Envirofacts Support Team is responsible for their content or site operation. The Envirofacts Warehouse provides this reference only as a convenience to our Internet users.

RCRAInfo

HANDLER ID: NJD002445500

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring

---

HANDLER / FACILITY CLASSIFICATION

946020416

HANDLER TYPE
Small Generator

No Process Information is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information RCRAInfo Query.

946020417

U.S. Environmental Protection Agency

Facility Registry System (FRS)

Facility Detail Report

Report an Error

FRS

Facility Name:	AUTOMATIC ELECTRO PLATING CORPORATION
Location Address:	185 FOUNDRY STREET
Supplemental Address:	BUILDING 21
City Name:	NEWARK
State	NJ
County Name:	ESSEX
ZIP/Postal Code:	071054297
EPA Region:	02
Congressional District Number:	13
Legislative District Number:	NO
HUC Code:	02030103
Federal Facility:	NO
Tribal Land :	NO
Latitude:	40.727199
Longitude:	-74.13218
Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point Description:	PLANT ENTRANCE (GENERAL)
Duns Number:	002445500
Registry ID:	110000739808

Map this facility

Environmental Interests

946020418

Information System	Information System ID	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
ICIS	6682275	ENFORCEMENT/COMPLIANCE ACTIVITY	ICIS	10/19/2004	
ICIS	9227	FORMAL ENFORCEMENT ACTION	ICIS	01/19/1995	**ICIS**-02-1985-0062 FORMAL ENFORCEMENT ACTION
RCRAINFO	NJD002445500	SQG	RCRAINFO	07/01/2003	
TRIS	07105TMTDL185FO	TRI REPORTER	TRI REPORTING FORM	05/03/2001	

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
CONTACT/GENERAL	185 FOUNDRY ST	NEWARK	NJ	07105	TRIS
CONTACT/GENERAL	185 FOUNDRY ST BLG 21 & 22	NEWARK	NJ	07105	RCRAINFO
CONTACT/OPERATOR	185 FOUNDRY ST BLDG 21 & 22	NEWARK	NJ	07105	RCRAINFO
CONTACT/REGULATORY	FOUNDRY ST BLG 21 & 22	NEWARK	NJ	07105	RCRAINFO

NAICS Codes

Data Source	NAICS Code	Description	Primary
RCRAINFO	332813	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.	

SIC Codes

Data Source	SIC Code	Description	Primary
ICIS	3471	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING	
TRIS	3471	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING	

Contacts

946020419

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
CONTACT/GENERAL	GEORGE H. SCOTT	9735890344	TRIS	
CONTACT/REGULATORY	MICHAEL J OROURKE	9735890344	RCRAINFO	View

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
CONTACT/OPERATOR	AUTOMATIC ELECTRO PLATING CORP		RCRAINFO	View
CONTACT/OWNER	FOUNDRY STREET CORP		RCRAINFO	

Alternative Names

Alternative Name	Source of Data
AUTOMATIC ELECTRO-PLATING CORP.	TRI REPORTING FORM

Query executed on: FEB-10-2006

EPA Home | Privacy and Security Notice | Contact Us

Last updated on Friday, February 10th, 2006
http://oaspub.epa.gov/enviro/fii_query_dtl.disp_program_facility

946020420

This page intentionally left blank

Decide with Confidence

Comprehensive Report

To save report(s) to your PC, click here for instructions.

Print this Report

Copyright 2006 Dun & Bradstreet - Provided under contract for the exclusive use of subscriber 263725069L

ATTN: **EE_LPRSA7**

Report Printed: JAN 31 2006

Overview

BUSINESS SUMMARY

AUTOMATIC ELECTRO PLATING CORP
185 Foundry St Ste 3
Newark, NJ 07105

D&B D-U-N-S Number: 00-244-5500

Now Included with this Report NEW!

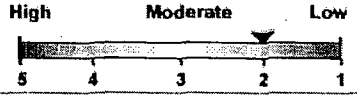
D&B's Credit Limit Recommendation
How much credit should you extend?
Learn More — **View Now**

Payment Trends Profile
Payment trends and industry benchmarks
Jump to Payment Trends

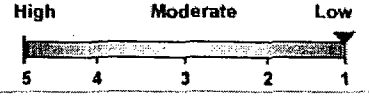
This is a **single** location.

Telephone:	973 589-0344
Fax:	973 589-0345
Chief executive:	GEORGE SCOTT, CHAIRMAN
Year started:	1960
Employs:	25
History:	CLEAR
SIC:	3471
Line of business:	Plating/polishing service

Credit Score Class: 2
Moderate risk of severe payment delinquency over next 12 months



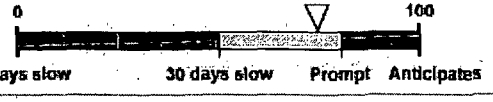
Financial Stress Class: 1
Low risk of severe financial stress over the next 12 months



946020423

12-Month D&B PAYDEX®: 77

When weighted by dollar amount, payments to suppliers average 5 days beyond terms.



D&B Rating:	**1R2**
Number of employees:	1R is **10 or more** employees.
Composite credit appraisal:	2 is **good**.

D&B EXCLUSIVE

EXECUTIVE SUMMARY

The **Financial Stress Class of 1** for this company shows that during the previous year, firms with this classification had a failure rate of 0.49% (49 per 10,000), which is lower than the national average.

The **Credit Score class of 2** for this company shows that during the previous year, 4.7% of the firms with this classification paid one or more bills severely delinquent, which is lower than the national average.

Predictive Scores	This Business	Comments
Financial Stress Class	1	Failure Rate lower than the national average
Financial Stress Score	1470	Highest Risk: 1,001; Lowest Risk: 1,850
Credit Score Class	2	Probability of Severely Delinquent Payment is lower than the national average.

Other Key Indicators		
PAYDEX Scores	5 days beyond terms	Pays more promptly than the average for its industry of 6 days beyond terms
Industry Median	6 days beyond terms	
Present management control	46 years	
UCC Filings	UCC filing(s) are reported for this business	
Public Filings	No record of open Suit(s), Lien(s), or Judgment(s) in the D&B database	
History	Is clear	

CREDIT CAPACITY SUMMARY

D&B Rating:	**1R2**
Number of employees:	1R indicates **10 or more** employees.

946020424

Composite credit appraisal: 2 is **good**.

The 1R and 2R ratings categories reflect company size based on the total number of employees for the business. They are assigned to business files that do not contain a current financial statement. In 1R and 2R Ratings, the 2, 3, or 4 creditworthiness indicator is based on analysis by D&B of public filings, trade payments, business age and other important factors. 2 is the highest Composite Credit Appraisal a company not supplying D&B with current financial information can receive. For more information, see the D&B Rating Key.

# of Employees Total:	25	**Payment Activity:** (based on 14 experiences)	
		Average High Credit:	$2,742
		Highest Credit:	$30,000
		Total Highest Credit:	$38,400

Jump to:

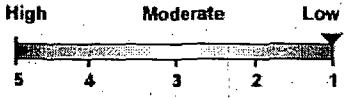
Overview | Payments | Public Filings | History & Operations | Banking & Finance

Scores D&B Exclusive

FINANCIAL STRESS SUMMARY

The Financial Stress Summary Model predicts the likelihood of a firm ceasing business without paying all creditors in full, or reorganization or obtaining relief from creditors under state/federal law over the next 12 months. Scores were calculated using a statistically valid model derived from D&B's extensive data files.

Financial Stress Class: 1



Low risk of severe financial stress, such as a bankruptcy, over the next 12 months.

Incidence of Financial Stress

Among Businesses with this Classification:	0.49% (49 per 10,000)
National Average	1.40% (140 per 10,000)

Financial Stress National Percentile: 72 (Highest Risk: 1; Lowest Risk: 100)

Financial Stress Score: 1470 (Highest Risk: 1,001; Lowest Risk: 1,850)

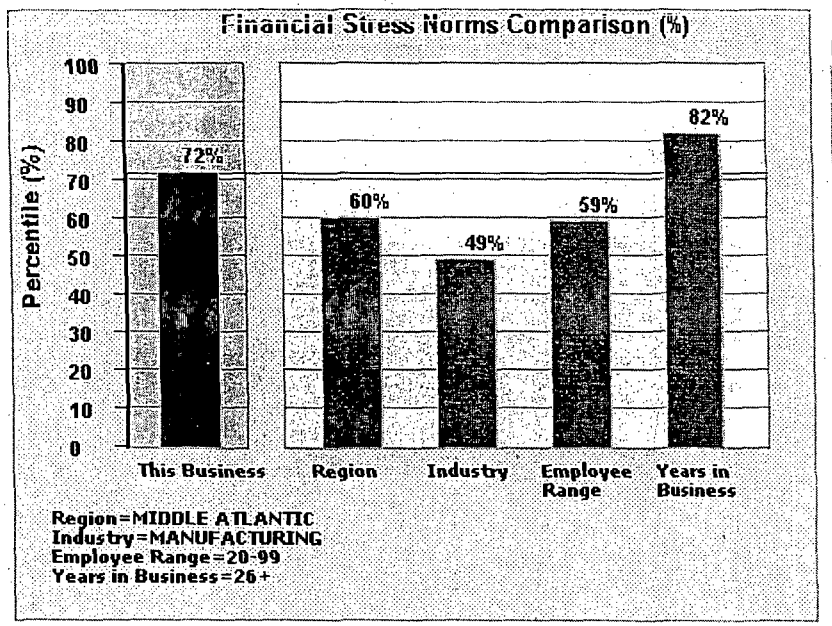
The Financial Stress Class of this business is based on the following factors:

946020425

- No record of open suit(s), lien(s), or judgement(s) in the D&B files.
- 36% of trade experiences indicate slow payment(s) are present.
- Control age or date entered in D&B files indicates lower risk.

Notes:

- The Financial Stress Class indicates that this firm shares some of the same business and financial characteristics of other companies with this classification. It does not mean the firm will necessarily experience financial stress.
- The Incidence of Financial Stress shows the percentage of firms in a given Class that discontinued operations over the past year with loss to creditors. The Incidence of Financial Stress - National Average represents the national failure rate and is provided for comparative purposes.
- The Financial Stress National Percentile reflects the relative ranking of a company among all scorable companies in D&B's file.
- The Financial Stress Score offers a more precise measure of the level of risk than the Class and Percentile. It is especially helpful to customers using a scorecard approach to determining overall business performance.
- All Financial Stress Class, Percentile, Score and Incidence statistics are based on 2002.



Norms	National %
This Business	72
Region: **MIDDLE ATLANTIC**	60
Industry: **MANUFACTURING**	49
Employee Range: **20-99**	59
Years in Business: **26+**	82

This business has a Financial Stress Percentile that shows:

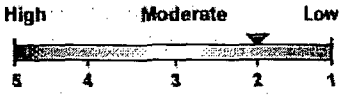
- Lower risk than other companies in the same region.
- Lower risk than other companies in the same industry.
- Lower risk than other companies in the same employee size range.
- Higher risk than other companies with a comparable number of years in business.

946020426

CREDIT SCORE CLASS SUMMARY

The Credit Score class predicts the likelihood of a firm paying in a severely delinquent manner (90+ Days Past Terms) over the next twelve months. It was calculated using statistically valid models and the most recent payment information in D&B's files.

Credit Score Class: 2



Moderate risk of severe payment delinquency over next 12 months.

Incidence of Delinquent Payment

Among Companies with this Classification: 4.70%

Credit Score Percentile: 76 (Highest Risk: 1; Lowest Risk: 100)

The Credit Score Class of this business is based on the following factors:

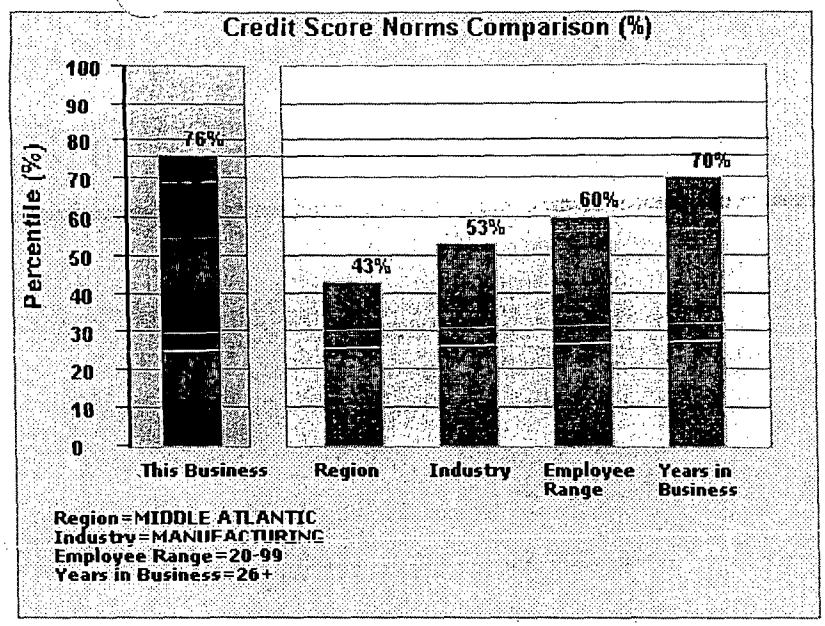
- Control age or date entered in D&B files indicates lower risk.
- No record of open suit(s), lien(s), or judgments(s) in the D&B files.
- Business does not own facilities.

Notes:

- The Incidence of Delinquent Payment is the percentage of companies with this classification that were reported 90 days past due or more by creditors. The calculation of this value is based on an inquiry weighted sample.
- The Percentile ranks this firm relative to other businesses. For example, a firm in the 80th percentile has a lower risk of paying in a severely delinquent manner than 79% of all scorable companies in D&B's files.

Norms	National %
This Business	76
Region: **MIDDLE ATLANTIC**	43
Industry: **MANUFACTURING**	53
Employee Range: **20-99**	60
Years in Business:	70

946020427



26+

This business has a Credit Score Percentile that shows:

- Lower risk than other companies in the same region.
- Lower risk than other companies in the same industry.
- Lower risk than other companies in the same employee size range.
- Lower risk than other companies with a comparable number of years in business.

Jump to:

Overview | Scores | Public Filings | History & Operations | Banking & Finance

Payments D&B Exclusive

PAYMENT TRENDS

Total Payment Experiences in D&B's File:	14
Payments Within Terms: (not dollar weighted)	78%
Total Placed For Collection:	0
Average Highest Credit:	$2,742

Current PAYDEX is:	**77**	equal to 5 days beyond terms
Industry Median is:	**76**	equal to 6 days beyond terms
Payment Trend currently is:	↔	**unchanged**, compared to payments three months ago

946020428

Largest High Credit:	$30,000
Highest Now Owing:	$10,000
Highest Past Due:	$0

Indications of slowness can be the result of dispute over merchandise, skipped invoices, etc. Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed.

PAYDEX Scores

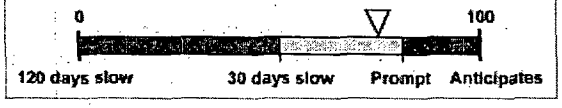
Shows the D&B PAYDEX scores as calculated on the most recent 3 months and 12 months of payment experiences.

The D&B PAYDEX is a unique, dollar weighted indicator of payment performance based on up to payment experiences as reported to D&B by trade references. A detailed explanation of how to read and interpret PAYDEX scores can be found at the end of this report.

3-Month D&B PAYDEX: 77
When weighted by dollar amount, payments to suppliers average 5 days beyond terms.

Based on payments collected over last 3 months.

12-Month D&B PAYDEX: 77
When weighted by dollar amount, payments to suppliers average 5 days beyond terms.



Based on payments collected over last 12 months.

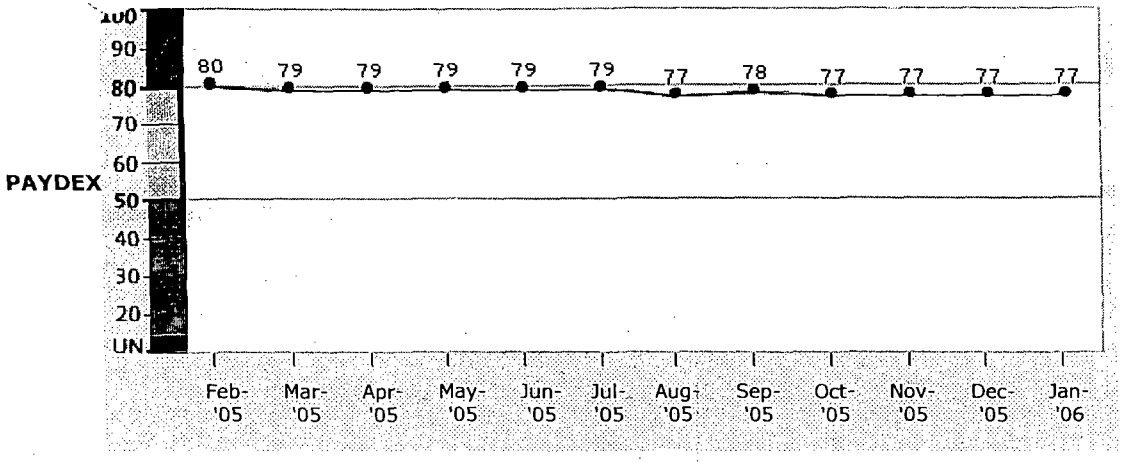
PAYDEX Yearly Trend

12 Month PAYDEX Scores Comparison to Industry

	2/05	3/05	4/05	5/05	6/05	7/05	8/05	9/05	10/05	11/05	12/05	1/06
This Business	80	79	79	79	79	79	77	78	77	77	77	77
Industry Quartiles												
Upper		79			79			79			79	
Median		75			75			76			76	
Lower		67			67			68			68	

Shows the trend in D&B PAYDEX scoring over the past 12 months.

946020429



Last 12 Months

Based on payments collected over the last 12 months.

- Current PAYDEX for this Business is 77, or equal to 5 days beyond terms
- The 12-month high is **80**, or equal to generally within terms
- The 12-month low is **77**, or equal to 5 days beyond terms

PAYDEX Comparison to Industry

Shows PAYDEX scores of this Business compared to the Primary Industry from each of the last four quarters. The Primary Industry is Plating/polishing service, based on SIC code 3471.

Quarterly PAYDEX Scores Comparison to Industry

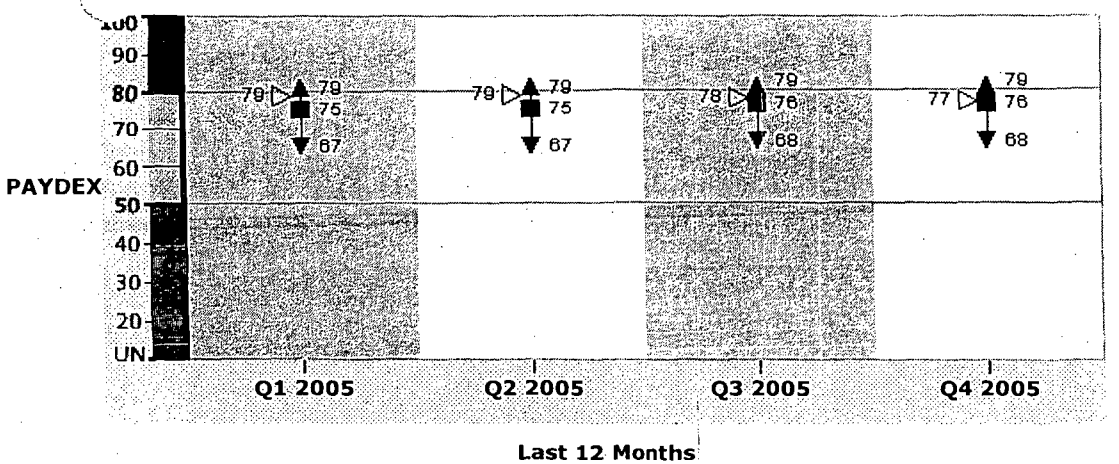
Previous Year

	3/04	6/04	9/04	12/04
This Business	80	80	80	80
Industry Quartiles				
Upper	79	79	79	79
Median	75	75	75	75
Lower	66	66	66	67

Current Year

	3/05	6/05	9/05	12/05
This Business	79	79	78	77
Industry Quartiles				
Upper	79	79	79	79
Median	75	75	76	76
Lower	67	67	68	68

946020430



Based on payments collected over the last 4 quarters.

Score Comparison Key:	▷ This Business	▲ Industry upper quartile
		■ Industry median
		▼ Industry lower quartile

- Current **PAYDEX** for this Business is **77**, or equal to 5 days beyond terms
- The present industry **median score** is **76**, or equal to 6 days beyond terms.

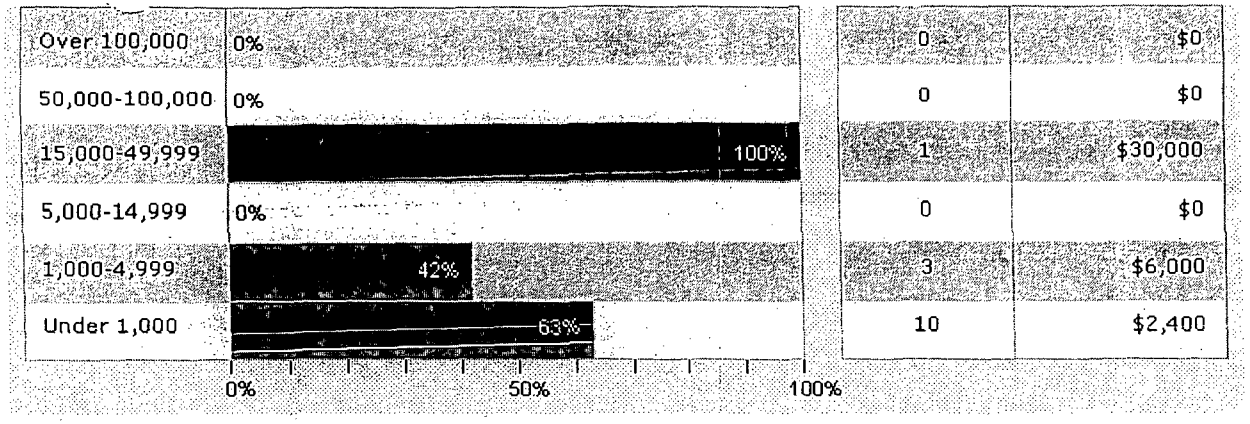
- Industry upper quartile represents the performance of the payers in the 75th percentile
- Industry lower quartile represents the performance of the payers in the 25th percentile

Payment Habits

For all payment experiences within a given amount of credit extended, shows the percent that this Business paid within terms. Provides number of experiences used to calculate the percentage, and the total dollar value of the credit extended.

$ Credit Extended	% of Payments Within Terms	# Payment Experiences	$ Total Dollar Amount

946020431



Based on payments collected over the last 12 months.

Payment experiences reflect how bills are met in relation to the terms granted. In some instances, payment beyond terms can be the result of disputes over merchandise, skipped invoices, etc.

PAYMENT SUMMARY

The Payment Summary section reflects payment information in D&B's file as of the date of this report.

There are 14 payment experiences in D&B's file for the most recent 12 months, with 11 experiences reported during the last three month period.

Below is an overview of the company's dollar-weighted payments, segmented by its suppliers' primary industries:

	Total Rcv'd (#)	Total Dollar Amts ($)	Largest High Credit ($)	Within Terms (%)	Days Slow <31 (%)	31-60 (%)	61-90 (%)	90> (%)
Top industries:								
Nonclassified	4	33,300	30,000	98	2	0	0	0
Short-trm busn credit	2	2,550	2,500	2	98	0	0	0
Whol electrical equip	2	1,250	1,000	20	80	0	0	0
Ret new/used autos	1	750	750	100	0	0	0	0
Telephone communictns	1	250	250	100	0	0	0	0
Ret mail-order house	1	100	100	50	50	0	0	0
Mfg pumping equipment	1	100	100	0	50	50	0	0
Data processing svcs	1	50	50	100	0	0	0	0
Misc business service	1	50	50	100	0	0	0	0
Other payment categories:								
Cash experiences	0	0	0					
Payment record unknown	0	0	0					

946020432

Unfavorable comments	0	0	0	

Placed for collections:

With D&B	0	0	0	
Other	0	N/A	0	
Total in D&B's file	14		30,000	

The highest **Now Owes** on file is $10,000 The highest **Past Due** on file is $0

Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed. Indications of slowness can be result of dispute over merchandise, skipped invoices, etc.

PAYMENT DETAILS

Detailed payment history

Date Reported (mm/yy)	Paying Record	High Credit ($)	Now Owes ($)	Past Due ($)	Selling Terms	Last Sale Within (months)
12/05	Ppt	30,000	10,000	0		1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	250	0	0	N30	1 mo
	Ppt	50	50	0		1 mo
	Ppt	50	0	0		2-3 mos
	Ppt	50	50	0		1 mo
	Ppt-Slow 30	100	100	0	N30	1 mo
	Slow 5	1,000	750	0	N30	1 mo
	Slow 30	2,500	750	0		1 mo
	Slow 30-60	100	0	0		4-5 mos
11/05	Ppt	250	0	0		6-12 mos
07/05	Slow 30	750	0	0		
06/05	Ppt	50	0	0		6-12 mos
04/05	Ppt	750	750	0		1 mo

Payment experiences reflect how bills are met in relation to the terms granted. In some instances payment beyond terms can be the result of disputes over merchandise, skipped invoices etc.

Each experience shown is from a separate supplier. Updated trade experiences replace those previously reported.

Jump to:

Overview | Scores | Payments | History & Operations | Banking & Finance

Public Filings

946020433

PUBLIC FILINGS

The following data includes both open and closed filings found in D&B's database on the subject company.

Record Type	# of Records	Most Recent Filing Date
Bankruptcy Proceedings	0	-
Judgments	0	-
Liens	0	-
Suits	0	-
UCC's	2	01/28/2000

The following Public Filing data is for information purposes only and is not the official record. Certified copies can only be obtained from the official source.

UCC FILINGS

Collateral: Equipment and proceeds
Type: Original
Sec. party: MODERN HANDLING EQUIPMENT OF N.J., INC., EDISON, NJ
Assignee: HYSTER CREDIT COMPANY, PORTLAND, OR
Debtor: AUTOMATIC ELECTRO-PLATING
Filing number: 1953832
Filed with: SECRETARY OF STATE/UCC DIVISION, TRENTON, NJ

Date filed: 01/28/2000
Latest Info Received: 03/01/2000

Collateral: Leased Equipment
Type: Original
Sec. party: ABSOLUTE FINANCIAL SERVICES, INC., KEENE, NH
Assignee: CFX FUNDING, L.L.C., MANCHESTER, NH
Debtor: AUTOMATIC ELECTRO PLATING CORP.
Filing number: 1750416
Filed with: SECRETARY OF STATE/UCC DIVISION, TRENTON, NJ

Date filed: 02/19/1997
Latest Info Received: 04/01/1997

The public record items contained in this report may have been paid, terminated, vacated or released prior to the date this report was printed.

GOVERNMENT ACTIVITY

Activity summary

946020434

Borrower (Dir/Guar):	NO
Administrative debt:	NO
Contractor:	NO
Grantee:	NO
Party excluded from federal program(s):	NO

Possible candidate for socio-economic program consideration

Labor surplus area:	YES (2005)
Small Business:	YES (2006)
8(A) firm:	N/A

The details provided in the Government Activity section are as reported to Dun & Bradstreet by the federal government and other sources.

Jump to:

Overview | Scores | Payments | Public Filings | Banking & Finance

History & Operations

HISTORY

The following information was reported **10/04/2005**:

Officer(s): GEORGE SCOTT, PRES
GEORGE SCOTT, CHAIRMAN

DIRECTOR(S): THE OFFICER(S)

Business started 1960 by Frank Borriello. 100% of capital stock is owned by officers.

Subject has been in control of the Borriello family since its inception in 1960. Frank Borriello withdrew from the corporation.

GEORGE SCOTT born 1941. 1965 to 1987 employed by Engelhard Corp, NJ. 1987 to 1992 employed by Doduco Corp, Cedar Knolls, NJ. 1992 to present active here.

GEORGE SCOTT. Work history unknown.

Affiliate:
The following is related through common ownership and/or financial interest. Foundry Street Corp, Newark, NJ, started 1970. Operates as a real estate management company. Intercompany relations: Consist of landlord and tenant relationship.

Business address has changed from 185 Foundry St, Bldg 19 & 21, Newark, NJ, 07105 to 185 Foundry St, Bldg & 21, Newark, NJ, 07105.

Business address has changed from 185 Foundry St, Bldg & 21, Newark, NJ, 07105 to 185 Foundry St, Newark,

946020435

NJ, 07105.

BUSINESS REGISTRATION

CORPORATE AND BUSINESS REGISTRATIONS PROVIDED BY MANAGEMENT OR OTHER SOURCE

The Corporate Details provided below may have been submitted by the management of the subject business and may not have been verified with the government agency which records such data.

Registered Name: automatic electro plating corp

Business type: CORPORATION
Corporation type: PROFIT
Date incorporated: AUG 18 1960
State of incorporation: NEW JERSEY

Common stock
Authorized shares: 1,000
Par value: NO PAR VALUE

Where filed: Secretary of State, Trenton, NJ

OPERATIONS

10/04/2005

Description: Engaged in metal plating and polishing, specializing in electroplating of metals or formed products (100%).

Terms are net 30 days. Has 75 account(s). Sells to commercial accounts. Territory : Local.

Nonseasonal.

Employees: 25 which includes officer(s).

Facilities: Rents 25,000 sq. ft. on 1st-2nd floor of a two story brick building.

SIC & NAICS

SIC:

Based on information in our file, D&B has assigned this company an extended 8-digit SIC. D&B's use of 8-digit SICs enables us to be more specific to a company's operations than if we use the standard 4-digit code.

The 4-digit SIC numbers link to the description on the Occupational Safety & Health Administration (OSHA) Web site. Links open in a new browser window.

NAICS:

332813 Electroplating, Plating, Polishing, Anodizing, and Coloring

946020436

34710105 Electroplating of metals or formed products

Jump to:

Overview | Scores | Payments | Public Filings | History & Operations

Banking & Finance

KEY BUSINESS RATIOS

D&B has been unable to obtain sufficient financial information from this company to calculate business ratios. Our check of additional outside sources also found no information available on its financial performance.
To help you in this instance, ratios for other firms in the same industry are provided below to support your analysis of this business.

Based on this number of establishments: 39

Industry Norms based on 39 establishments

	This Business	Industry Median	Industry Quartile
Profitability			
Return on Sales	UN	2.7	UN
Return on Net Worth	UN	11.1	UN
Short-Term Solvency			
Current Ratio	UN	1.8	UN
Quick Ratio	UN	1.4	UN
Efficiency			
Assets Sales	UN	45.7	UN
Sales / Net Working Capital	UN	7.6	UN
Utilization			
Total Liabs / Net Worth	UN	98.5	UN

UN = Unavailable

FINANCE

09/27/2005

Sources contacted verified information on September 19, 2005.

946020437

CUSTOMER SERVICE

If you have questions about this report, please call our Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. If you are outside the U.S. contact your local D&B office.

*** Additional Decision Support Available ***

Additional D&B products, monitoring services and specialized investigations are available to help you evaluate this company or its industry. Call Dun & Bradstreet's Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. or visit our website at www.dnb.com.

Copyright 2006 Dun & Bradstreet - Provided under contract for the exclusive use of subscriber 263725069L

946020438

APR 30 1996

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Mr. George Scott, President
Automatic Electroplating Corp.
185 Foundry Street
Newark, New Jersey 07105

Re: Request for Information Under 42 U.S.C. §9601 et seq.
Diamond Alkali Superfund Site, Passaic River Study Area

Dear Sir:

The United States Environmental Protection Agency ("EPA") is investigating the presence of hazardous substances in the sediments of the Passaic River. EPA is charged with responding to the release and/or threatened release of hazardous substances, pollutants and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9601 et seq.

This "Request for Information", EPA requests information concerning the nature and quantity of certain materials (hazardous substances and hazardous waste, as those terms are defined at Section 101(14) of CERCLA, 42 U.S.C. §9601(14), and Section 1004 of RCRA, 42 U.S.C. §6903 respectively) which may have been generated, treated, stored, or disposed at your facility located at 185 Foundry Street in Newark, New Jersey. EPA makes its request pursuant to Section 104 of CERCLA, 42 U.S.C. §9604.

Pursuant to these statutory provisions, EPA hereby requires that you provide the information requested in Attachment A of this letter, and include, as required, the "Certification of Answers to Request for Information," with your notarized signature.

In preparing your response to this "Request for Information," please follow the instructions provided in Attachment B.

843620001

SYMBOL -->	NNJS2	SUP-ORC	NNJS2	NJB2	NJP	DD	D	
SURNAME -->	RICHMAN	WAGNER	DEORTE	BASSO	FRISCO	PAVLOU	CALLAHAN	
DATE -->	4/17	4/17/96	4/23	4/29		4/29		

946020440

Your response to this "Request for Information" should be postmarked or received by EPA within thirty (30) calendar days of your receipt of this letter. Your response should be mailed to:

Mr. Lance R. Richman, P.G.
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
New York, New York 10007-1866

with a copy to Ms. Amelia Wagner, Assistant Regional Counsel, Office of Regional Counsel, on the 17th Floor at the same address.

Your failure to respond to this "Request for Information" within the time specified above may subject you to an enforcement action under Section 104(e)(5) of CERCLA, 42 U.S.C. §9604(e)(5). An enforcement action may include the assessment of penalties of up to $25,000 for each day of continued noncompliance.

Be advised that you are under a continuing obligation to supplement your response if information not known or not available to you as of the date of submission of your response should later become known or available. If at any time in the future you obtain or become aware of additional information and/or find that any portion of the submitted information is false, misleading or misrepresents the truth, you must promptly notify EPA. If any part of your response is found to be untrue, you may be subject to criminal prosecution.

If desired, you may assert a business confidentiality claim covering all or part of the information requested by this letter. The claim must be supported by each of the four factors specified in Section 104(e)(7)(E) of CERCLA, 42 U.S.C. §9604(e)(7)(E), and must be asserted at the time of submission, by placing on (or attaching to) the information a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret", or "proprietary", or "company confidential". Information covered by such a claim will be disclosed by EPA only to the extent and by means of procedures set forth in Title 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

843620002

946020441

If you have any questions concerning this "Request for Information," please contact Mr. Richman, of my staff, at (212) 637-4409 or Ms. Wagner at (212) 637-3141. Inquiries from attorneys should be directed to Ms. Wagner. Your cooperation is appreciated.

Sincerely yours,

Kathleen C. Callahan, Director
Emergency and Remedial Response Division

Enclosures

843620003

946020442

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of _____:

County of _____:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that my company is under a continuing obligation to supplement its response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or the company's response thereto should become known or available to the company.

_____
NAME (print or type)

_____
TITLE (print or type)

_____
SIGNATURE

Sworn to before me this
day of , 19___

_____
Notary Public

843620004

946020443

ATTACHMENT A

REQUEST FOR INFORMATION

Background

The United States Environmental Protection Agency ("EPA") is investigating the release of hazardous substances into the Passaic River. EPA has information indicating that hazardous substances from your facility located at 185 Foundry Street in Newark, New Jersey may have been discharged into the Passaic River.

Provide the information requested below, including copies of all available documentation that supports your answers.

1) How long has your company operated at the facility designated above? If your company no longer operates at this facility, during what years did your company operate at the facility?

2) a) Does your company have or has it in the past had a permit or permits issued pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq.? If "yes", please provide the years that your company held such a permit and its EPA Identification Number.

b) Does your company have or has it in the past had a permit or permits issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. § 1251, et seq.? If "yes", please provide the years that your company held such a permit.

c) Has your company renewed the permit for your facility that expired as of 7/14/91 to release discharged chemicals to the PVSC (Passaic Valley Sewerage Commission)?

3) Did your company receive, utilize, manufacture, discharge, release or dispose of any materials containing the following substances:

	Yes	No
2,3,7,8 tetrachlorodibenzo-p-dioxin or other dioxin compounds	___	___
Boric acid	___	___
Nickel sulfate	___	___
Zinc Chloride	___	___
Nickel Chloride	___	___
Chromium	___	___
Arsenic	___	___
Cadmium	___	___
Copper	___	___
Lead	___	___
Mercury	___	___
Nickel	___	___

Silver	___	___
Zinc	___	___
Cyanide	___	___
PCBs	___	___

4) a) Provide a description of the manufacturing processes for which all hazardous substances, including, but not limited to, the substances listed in response to item (3) were a product or by-product.

b) During what parts of the manufacturing processes identified in the response to items (4)(a), above, were hazardous substances, including, but not limited to, the substances listed in response to item (3), generated?

i) Describe the chemical composition of these hazardous substances.

ii) For each process, what amount of hazardous substances was generated per volume of finished product?

iii) Were these hazardous substances combined with wastes from other processes? If so, wastes from what processes?

5) Describe the methods of collection, storage, treatment, and disposal of all hazardous substances, including, but not limited to, the substances listed in response to item (3) and (4). Include information on the following:

a) Identify all persons who arranged for and managed the processing, treatment, storage and disposal of hazardous substances.

b) If hazardous substances were taken off-site by a hauler or transporter, provide the names and addresses of the waste haulers and the disposal site locations.

c) Describe all storage practices employed by your company with respect to all hazardous substances from the time operations commenced until the present. Include all on-site and off-site storage activities.

d) What processes do you use to treat your waste? What do you do with the waste after it is treated?

6) a) For process waste waters generated at the facility which contained any hazardous substances, including, but not limited to, the substances listed in response to item (3) and (4):

843620006

946020445

i) Did the waste stream connect to a sanitary sewer and if so, during what years?

ii) Were they treated before being discharged to the sanitary sewer and if so, how? Please be specific.

iii) If the waste waters were not discharged to the sanitary sewer, where were they disposed and during what years?

iv) Please provide the results of any analyses performed on any waste process streams generated at the facility.

b) For floor drains or other disposal drains at the facility:

i) Did the drains connect to a sanitary sewer and if so, during what years?

ii) If the floor drains or other disposal drains at the facility were not discharged to the sanitary sewer, where did they discharge and during what years?

c) EPA has evidence that priority pollutant metals were detected in sediment or surface water samples collected from catch basins on your property. Please provide information on:

i) the number of catch basins at your facility.

ii) drainage from your facility to each of the catch basins.

iii) the composition of the waste water from your facility that drains into each catch basin.

iv) whether or not these catch basins are lined or unlined.

v) whether there was a release from any of these catch basins and, if so, during what years. If there was a discharge, was it to a storm sewer or a sanitary sewer. Was it treated in any way prior to discharge and, if so, how and during what years.

vi) during what years each catch basin existed at your facility.

d) i) Did any storm sewers or lagoons exist at any time at the facility and if so, during what years?

843620007

946020446

ii) If lagoons existed, were they lined or un-lined?

iii) What was stored in the lagoons?

iv) Where was the discharge from any of these storm sewers or lagoons released and during what years? Was this discharge treated before its release and if so, how and during what years?

e) Please supply diagrams of any waste water collection or disposal systems on the property.

7) a) For each hazardous substances, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4), above, provide the total amount generated during the operation of the facility on an annual basis.

b) Were any hazardous substances, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4), above, disposed of in the Passaic River or discharged to the Passaic River? If yes, estimate the amount of material discharged to or disposed of in the Passaic River and the frequency with which this discharge or disposal occurred. Also please include any sampling of the river which you might have done after any discharge or disposal.

8) Please identify any leaks, spills, explosions, fires, or other incidents of accidental material discharge that occurred at the facility during which or as a result of which any hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4), were released on the property, into the waste water or storm drain system of the facility or discharged to the Passaic River. Provide any documents or information relating to these incidents, including the results of any sampling of the soil, water, air, or other environmental media after any such incident and before and after clean-up, as well as details of the ultimate disposal of any contaminated materials.

9) a) Was your facility ever subject to flooding. If so, was the flooding due to:

i) overflow from sanitary or storm sewer back-up,

843620008

946020447

ii) flood overflow from the Passaic River?

b) Please provide the date and duration of each flood event.

10) Please provide a detailed description of any civil, criminal or administrative proceedings against your company for violations of any local, State or federal laws or regulations relating to water pollution or hazardous waste generation, storage, transport or disposal. Provide copies of all pleadings and depositions or other testimony given in these proceedings. Include in your response the details of your company's alleged violation of Sections 307 and 308 of the Clean Water Act, which was settled in 1987.

11) Please provide any documents or information you have relating to the 1989 initiation of an ECRA Study at your facility. Was there investigation and/or sampling of your site pursuant to ECRA? If so, please provide any results or related documents.

12) Provide a copy of each document which relates to the generation, purchase, use, handling, hauling, and/or disposal of all hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4). If you are unable to provide a copy of any document, then identify the document by describing the nature of the document (e.g. letter, file memo, invoice, inventory form, billing record, hazardous waste manifest, etc.). Describe the relevant information contained therein. Identify by name and job title the person who prepared the document. If the document is not readily available, state where it is stored, maintained, or why it is unavailable.

13) a) Did you or anyone else sample the soil, ground water, surface water ambient air, or other environmental media at the facility for purposes other than those identified in questions above?

b) Provide all other documents pertaining to the results of any analyses of ground water, surface water, ambient air, and any other environmental media performed at the facility.

14) a) Has your company owned the facility at the location designated above? If so, from whom did your company purchase the property and in what year? If your company subsequently sold the property, to whom did your company sell it and in what year? Please provide copies of any deeds and documents of sale.

b) If your company did not own the facility, from whom did your company rent the facility and for what years? Please provide copies of any rental agreements.

843620009

946020448

assisted in responding. Please include the names and addresses of former employees who were contacted to respond to any of these questions.

843620011

946020449

ATTACHMENT B

INSTRUCTIONS FOR RESPONDING TO REQUEST FOR INFORMATION

1. A complete separate response must be made to each individual question in this "Request for Information".

2. Precede each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all current or former employees and agents of your company who may be familiar with the matter to which the question pertains.

4. Interpret "and" as well as "or" to include within the scope of the question as much information as possible. If two interpretations of a question are possible, use the one that provides more information.

5. If you are unable to give a detailed and complete answer or to provide any of the information or documents requested, indicate the reasons for your inability to do so.

6. If you have reason to believe that an individual other than one employed by your company may be able to provide additional details or documentation in response to any question, state that person's name, last known address, phone number and the reasons for your belief.

7. For each document produced in response to this "Request for Information", indicate on the document, or in some other reasonable manner, the number of the question to which it applies.

8. If anything is deleted from a document produced in response to this "Request for Information", state the reason for, and the subject matter of, the deletion.

9. Provide all documents that relate to each question. If a document is requested but is not available, state the reason for its unavailability. In addition, to the best of your ability, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. As used herein "relate to" or "relating to" means constituting, defining, containing, embodying, reflecting, identifying, stating, referring to, dealing with, or in any way pertaining to. "Document" as used herein means any recording of information in tangible form, including memoranda, handwritten notes, invoices, checks, manifests, tape recordings, computer databases, or any tangible or physical objects however produced or reproduced upon which words or other information "are affixed

843620012

946020450

or recorded or from which by appropriate transcription written matter or a tangible thing may be produced.

11. Whenever in this "Request for Information" there is a request to identify a person or an entity other than a person, state the person or entity's full name, last known employment, present or last known home address, and telephone number.

12. As used herein, the term "facility," "hazardous substance," "person," and "release" shall have the meaning set forth in Section 101(9), (14), (21) and (22) of CERCLA, 42 U.S.C. §9601(9), (14), (21), and (22), respectively.

13. In answering these questions, every source of information to which you have access should be consulted, regardless of whether the source is in your immediate possession or control. All documents or other information, including records of all types of manufacturing, treatment, transportation or disposal operations, in your possession or in the possession of the Corporation should be consulted. If you do not have access to certain information and/or documents, state the nature of this information and/or documents, and indicate in whose possession they can be found.

843620013

946020451

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. George Scott, President
Automatic Electroplating Corp.
145 Foundry Street
Newark, NJ 07105

4a. Article Number

EG918944795US

4b. Service Type

☐ Registered ☐ Certified
☒ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5/1/96

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*

X

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

843620014

946020452

AUTOMATIC

AUTOMATIC ELECTRO - PLATING CORP.

185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105

TELEPHONE: (201) 589-0344

FAX: (201) 589-0345

1) Since 1970

2) a. NO
b. NO
c. YES

3) Boric Acid (Not a toxic chemical)
Nickel Sulfate
Zinc Chloride (Not a toxic chemical)
Chromium as a chromate solution
Nickel Anodes
Silver
Zinc Anodes (Not a toxic chemical)

4) a. Electro-plating of steel components with a Zinc or Nickel finish.

b. During the plating process the chemicals listed in question #3 were consumed by depositing the Zinc & Nickel on customers components. Any excess chemicals were rinsed off the components and discharged to the sanitary sewer after treatment as expressed in 40CFR-413-14 Sub Part A.

I. Chemicals were combined in a plating solution to allow metals to ionize and plate onto customers components.

II. Trace amounts of substances were from plating solution, are dragged into rinse water, and discharged to sewer after treatment.

III. NO

5) Rinse waters from the plating processes are piped to a collection/ sampling pit.

a. Gerald Borriello

b. George Scott

b. NONE

c. All chemicals are stored in drums, carboys, and tanks within the confines of the facility.

d. We adjust the pH of the waste water with either caustic soda or sulfuric acid to 7.0 and discharge to the sewer. There is no other waste generated.

843610008

946020454

AUTOMATIC ELECTRO-PLATING CORP.
Newark, New Jersey

6) (A) I. YES, since 1970
II. YES. Adjusted for pH
III. NO
IV. See P.V.S.C. reports.

(B) I. YES, since 1970
II. NONE

(C) I. Two common road troughs catching runoff from the surrounding area.
II. NONE
III. NONE
IV. Unlined
V. They flood during heavy rains. (See photo's).
VI. Since facility was built in early 1900's to the best of my knowledge.

(D) I. Storm sewers and catch basins are the same. There are no lagoons.
II. NONE
III. N/A
IV. NONE

(E) See enclosed diagram.

7) (A) See List. Three (3) years average
(B) Absolutely not.

8) NONE

9) (A) YES
I. YES
II. NO
(B) See List. 2-3 year average

10) See settlement of E.P.A. action.

11) See ECRA filing.

12) N/A

843610009

946020455

AUTOMATIC ELECTRO-PLATING CORP.
Newark, NJ

13) A. YES

B. See results Analytical T.L. Soil Test.

14) A. NO

B. Kem Realty Co. 1970 - 1971
Foundry Street Corp. 1971 - Present

C. Chemical Industries
Kem Realty Corp.

There was no relationship.

15) A. Automatic Electro-Plating Corp.

B. Gerald Borriello - Park Ridge, NJ
George H. Scott - Bernardsville, NJ

C. New Jersey

J.J. Longley, Esq.
Summit, NJ

D. See copy.

E. NONE

F. NONE

G. NONE

H. See documents

I. Frank Borriello
Daytona, Florida
May 11, 1983

843610035

946020456

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of New Jersey:

County of Bergen:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that my company is under a continuing obligation to supplement its response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or the company's response thereto should become known or available to the company.

GERALD BORRIELLO
NAME (print or type)

C.E.O.
TITLE (print or type)

SIGNATURE

Sworn to before me this 24th day of May 1996

Notary Public

CAROL D. TAGNE
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES MAR. 3, 1997

843610010

946020457

AUTOMATIC

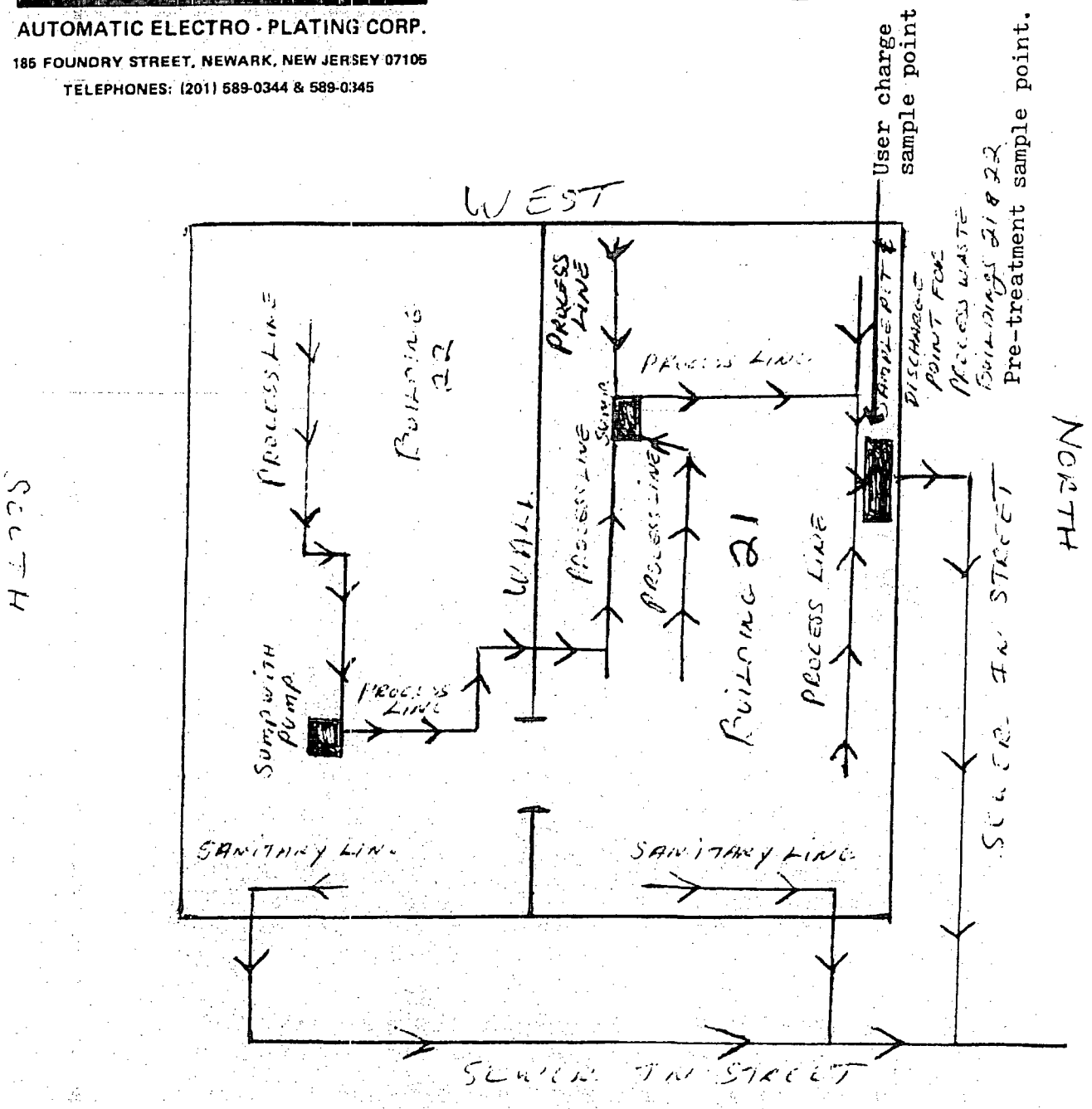
AUTOMATIC ELECTRO - PLATING CORP.

185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105

TELEPHONES: (201) 589-0344 & 589-0345

SEWER LINES

6-E



843610011

946020458

AUTOMATIC

AUTOMATIC ELECTRO-PLATING CORP.

185 FOUNDRY STREET, NEWARK, NEW JERSEY 07105

TELEPHONE: (201) 589-0344

FAX: (201) 589-0345

Pounds per year purchased -- 1994 7. A

Boric Acid	100 Lbs.
Nickel Sulfate	0
Zinc Chloride	440 Lbs.
Chromium from a chromate solution (1994)	
Luster-On 250A	450 Lbs.
Luster-On 25AB	460 Lbs.
	910 Lbs.
Nickel Anodes	250 Lbs.
Silver Nitrate	3 Lbs.
Zinc Anodes	23,000 Lbs.

843610012

946020459

CHART 1

MONTHLY ANALYSIS - LEAD

9-B

MONTH	Pb.	DATE SAMPLED:	FLOOD DATES:
1/1 - 1/31	< .1	1/06/94	
2/1 - 2/28	< .1	2/03/94	
3/1 - 3/31	< .1	3/03/94	
4/1 - 4/30	< .1	4/07/94	4/27/94
5/1 - 5/31	< .1	5/05/94	
6/1 - 6/30	< .1	6/02/94	6/29/94
7/1 - 7/31	< .1	7/07/94	7/26/94
8/1 - 8/31	< .1	8/04/94	
9/1 - 9/30	< .1	9/01/94	
10/1 - 10/31	< .1	10/06/94	
11/1 - 11/30	< .1	11/03/94	11/21/94
12/1 - 12/31		12/03/94	12/06/94

86000006
SC

(10)

12

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

ENTERED NOV 26
ON
THE DOCKET
ON 11-23-87
WILLIAM T. WALSH CLERK
By [signature]
(Deputy Clerk)

UNITED STATES OF AMERICA,

Plaintiff,

v.

AUTOMATIC ELECTRO-PLATING CORP.,

Defendant.

Civil Action No. 86-0920(MTB)

FILED

NOV 23 1987

AT 8:30 1:00 P M

WILLIAM T WALSH
CLERK

CONSENT DECREE

WHEREAS, Plaintiff, United States of America, on behalf of the Administrator of the United States Environmental Protection Agency (hereinafter "EPA" or "Plaintiff"), has filed a complaint alleging that Automatic Electro-Plating Corp. has violated Section 307 and Section 308 of the Clean Water Act, 33 U.S.C. §1317 and §1318 ("the Act"); and

WHEREAS, the Defendant, Automatic Electro-Plating Corp., is a corporation incorporated under the laws of the State of New Jersey and owns and operates a plant engaged in electroplating located at 185 Foundry Street, Newark, New Jersey, (hereinafter "the Plant"); and

843610014

946020461

WHEREAS, the Defendant, in carrying out its industrial operations, generates wastewater from its electroplating operations which is ultimately discharged to a Publicly Owned Treatment Works (POTW) owned and operated by the Passaic Valley Sewerage Commissioners; and

WHEREAS, the Defendant discharges non-domestic pollutants from its electroplating industrial processes into a POTW, the Defendant is an Industrial User in the Electroplating Point Source Category and is required to comply with the General Pretreatment Regulations, 40 C.F.R. Part 403 and the categorical pretreatment standards for the Electroplating Point Source Category, 40 C.F.R. Part 413, which were promulgated pursuant to Section 307(b) and Section 308 of the Clean Water Act, 33 U.S.C. §1317(b) and §1318; and

WHEREAS, the Defendant is an Industrial User subject to a categorical standard, and it was required to submit a Baseline Monitoring Report (BMR) on its operations by September 12, 1981 and subsequent compliance reports beginning July 27, 1984 pursuant to 40 C.F.R. §403.12 (b), (d) and (e); and

WHEREAS, the Defendant operates a non-integrated electroplating facility, and it was required to comply with the Electroplating Categorical Pretreatment Standards under 40 C.F.R. Part 413 by April 27, 1984; and

WHEREAS, the Plaintiff and the Defendant have agreed that settlement of this matter is in the public interest and that entry of this Decree without further litigation, and before any finding of fact and without any admissions or denials, is the most appropriate way to resolve the dispute between the parties;

NOW, THEREFORE, upon consent and agreement of the parties to this Decree, it is hereby ADJUDGED, ORDERED AND DECREED as follows:

I.

JURISDICTION

This Court has jurisdiction of the subject matter herein and of the parties consenting hereto pursuant to 28 U.S.C. §1345 and Section 309 of the Clean Water Act, 33 U.S.C. §1319. The Complaint states a claim upon which relief can be granted against the Defendant under Sections 307, 308 and 309 of the Act, 33 U.S.C. §§1317, 1318 and 1319.

II.

APPLICATION

The provisions of this Decree shall apply to and be binding upon the parties to this action and their officers, directors, agents, servants, employees, successors and assigns, and all persons, firms and corporations having notice of the

Decree and who are, or will be, acting in concert or privity with the Defendant in this action or its officers, directors, agents, servants, or employees, successors and assigns. In the event the Defendant proposes to sell or transfer the property or operations which are the subject of this Decree, prior to such sale or transfer, it shall advise such purchaser or transferee of the existence of this Decree, and shall notify in writing all parties to this Decree of such proposed sale or transfer.

III.

COMPLIANCE PROGRAM

A. The Defendant represents that by September 30, 1986, it had achieved compliance at the Plant with the General Pretreatment Regulations in 40 C.F.R. Part 403, the Electroplating Categorical Pretreatment Standards in 40 C.F.R. Part 413, and stricter corresponding local standards regulating its discharge to the POTW. The Defendant shall demonstrate compliance by March 31, 1987 and shall thereafter maintain compliance at the Plant with the General Pretreatment Regulations, Electroplating Categorical Pretreatment Standards, and stricter corresponding local standards in effect at the time this Decree is entered. The Defendant shall demonstrate compliance by meeting all applicable federal, state and local pretreatment

standards as measured by the results of 6 composite samples it shall take within the 2-week period beginning March 16, 1987 in accordance with the procedures set forth in Exhibit A. The Defendant shall transmit such results to the addressees specified in Exhibit B on or before April 30, 1987. Until the Defendant achieves and demonstrates final compliance, the Defendant shall undertake such additional measures reasonably necessary in its effort to minimize its violations of the General Pretreatment Regulations in 40 C.F.R. Part 403, the Electroplating Categorical Pretreatment Standards in 40 C.F.R. Part 413, and stricter corresponding local standards in effect at the time this Decree is entered.

IV.

MONITORING AND SAMPLING

Beginning April 1987, and continuing monthly until six consecutive months of continuous compliance is achieved and demonstrated, the Defendant shall sample the effluent discharges into the collection system of the POTW. Sampling shall determine the concentrations of the following pollutants: cyanide (amenable), lead, cadmium, and pH. Sampling results shall be submitted by the fifteenth day of the month following the taking of said samples. The Defendant shall conduct representative sampling in conformance with the methodology contained in 40 C.F.R. Part 136 of the effluent characteristics of its normal production operations and ancillary production functions at the plant in accordance with the following schedule:

Monthly Sampling and Monitoring Schedule

Sample Type	24-hour composite	[for pH, 2 grab samples per day]
Frequency	A minimum of 4 days per month, in sequences of 4 consecutive production days.	

V.

REPORTING

Beginning on May 15, 1987, and continuing on the fifteenth day of every month thereafter until six consecutive months of continuous compliance is achieved and demonstrated, the Defendant shall transmit a report signed by a duly authorized representative (as provided in 40 C.F.R. §403.12(i)(3)) to EPA Region II, the Passaic Valley Sewerage Commissioners, and the Department of Environmental Protection of the State of New Jersey setting forth the following information for the preceding month:

A. Results of the sampling required by Section IV., and a description of the sampling method and exact location of sampling points used; and

B. The following flow measurements during sampling: Total regulated plant flow in maximum gallons per day for each day in which there is a discharge into the collection system of the POTW.

The Defendant shall maintain records of all flow measurements in accordance with 40 C.F.R. §403.12(1)(2);

C. Whether compliance has been achieved and demonstrated as specified in Paragraph III., and if not, an explanation of the cause(s) of noncompliance, the length of time necessary for the Defendant to achieve compliance, and a timetable by which the Defendant will implement measures to achieve compliance;

D. A description of any modifications (1) to the Plant's production systems; (2) to the Plant's volume or rate production; (3) to the Plant's maintenance procedures; and/or (4) to the Plant's pretreatment practices to the extent that any such modification may materially affect the monitored flows or concentrations of regulated pollutants contained in the effluent from the Plant's wastewater treatment system, or the sampling points at which the Defendant monitors.

The reporting requirements of this Decree do not relieve the Defendant of its responsibility to submit reports required by 40 C.F.R. §403.12(d) and (e), or other provisions of the Act or regulations promulgated thereunder. Any information provided under this Decree may be used as an admission of the Defendant in any proceeding to enforce this Decree or the Act.

VI.

CIVIL PENALTY

The Defendant shall pay a civil penalty to the United States in the amount of One Hundred Thousand Dollars ($100,000) within fifteen days of the date of entry of this Decree. Payment shall be made by certified check payable to "Treasurer,

United States of America" and shall be delivered to the United States Attorney for the District of New Jersey. The Defendant shall be permitted to pay this penalty in thirty-six monthly installments, delivered by the fifteenth day of the month, of $3,110.62 each, which includes interest at the rate of 7.5% per annum. The first payment shall be made by the fifteenth day of the month immediately following entry of this Decree. Prepayment of the principal balance still owing, as set out in Exhibit C, is allowed. Payment of the principal balance still owing also must be made by the fifteenth day of the month. In the month in which the principal balance still owing is paid off in its entirety, the monthly payment for that month also must be made.

VII.

STIPULATED PENALTIES

Failure by the Defendant to comply with any requirement in this Decree shall require the Defendant to pay stipulated penalties automatically and without demand as follows:

A. If the Defendant fails to achieve and demonstrate compliance by March 31, 1987 with the General Pretreatment Regulations, the Electroplating Categorical Pretreatment Standards, and stricter corresponding local standards in effect at the time this Decree is entered, it shall pay a stipulated

penalty of $1,000 per day commencing on April 1, 1987 until the day on which such compliance was achieved as thereafter demonstrated by testing results.

B. If the Defendant fails to submit any report pursuant to Paragraph V, it shall pay a stipulated penalty of $1,000 for each week after the end of the month in which such report is due or overdue and not submitted.

C. If the Defendant fails to sample and monitor as provided in Paragraph IV, it shall pay a stipulated penalty of $1,000 for each such failure to sample.

D. If the Defendant fails to comply with the applicable pretreatment limitation for any Standard after compliance has been achieved and demonstrated pursuant to Paragraph III., it shall pay a stipulated penalty of $1,000 for each violation of a Four-Day Average Limitation and $500 for each violation of a Daily Maximum or Instantaneous Maximum Limitation for said parameter.

Payment of the stipulated penalties set out above shall be made by tender of certified check, payable to "Treasurer, United States of America" and shall be delivered to the United States Attorney for the District of New Jersey by the fifteenth day of the month following the month in which the violations occurred, together with a letter describing the basis for the penalties. A copy of the transmittal letter

accompanying payment shall be sent to the Regional Counsel, United States Environmental Protection Agency, Region II, 26 Federal Plaza, Room 437, New York, New York 10278, with the succeeding monthly report specified in Paragraph V. Payment for violations discovered by any government agency shall be transmitted within 15 days of notification to the Defendant that a violation has occurred. Any dispute with respect to the Defendant's liability for a stipulated penalty shall be resolved by this Court pursuant to Paragraph X.A.

Payment of the stipulated penalties incurred under this decree does not relieve the Defendant of its obligation to achieve compliance with this decree or the Act.

VIII.

RIGHT OF ENTRY

During the term of this Decree, Plaintiff, the Passaic Valley Sewerage Commissioners, the State of New Jersey, and their authorized contractors and consultants shall have authority to enter on the premises of the Plant, as provided under the Act and applicable regulations. This provision in no way limits the Plaintiff's authority under Section 308 of the Act, 33 U.S.C. §1318, to conduct inspections.

IX.

FORCE MAJEURE

A. As to any event which causes or may cause a delay in the schedule set out in Paragraph III., the Defendant shall notify the Court and EPA Region II, in writing, within fifteen days of the date on which the Defendant first knew or should have known that such event would cause a delay in the final compliance date set out in Paragraph III. The notice shall describe the anticipated length of time the delay may persist, cause or causes of the delay, the measures taken or to be taken by the Defendant to prevent or minimize the delay and the timetable by which Defendant will implement those measures. The Defendant shall adopt all reasonable measures to avoid or minimize such delay. Failure by the Defendant to comply with the notice requirements of this section shall render this section void and of no effect as to the particular incident involved, and shall constitute a waiver of the Defendant's right to obtain an extension of time for its obligations under this section based on such incident.

B. If the parties agree that the delay has been or will be caused by circumstances beyond the control of the Defendant, and that Defendant could not have reasonably foreseen and prevented such delay, the parties will jointly request the Court to extend the time for performance of such requirement

by a period not to exceed the actual delay resulting from such circumstance. Said circumstances shall be limited to an act of God, fire, flood, riot, strike, or circumstances entirely beyond the control of the Defendant. In the event the parties are unable to agree, the matter may be submitted by either party to the Court for resolution.

C. Economic hardship or increased cost to Defendant are not grounds for exercising any rights or claiming any relief under this section.

D. An extension of one compliance date based on a particular incident does not result in an extension of a subsequent compliance date or dates.

E. The Defendant shall bear the burden of proving that any delay was caused by circumstances beyond the control of the Defendant.

X.

GENERAL PROVISIONS

A. The Court shall retain jurisdiction to modify and enforce the terms and conditions of this decree and to resolve disputes arising hereunder as may be necessary or appropriate for the construction or execution of this Decree.

B. Any modification of this Decree shall be in writing and approved by the Court.

C. This Decree is neither a permit nor a modification of any existing permit and in no way relieves the Defendant of its

obligation to comply with all applicable federal, state or local laws or regulations.

D. Plaintiff reserves any and all legal and equitable remedies available to enforce the provisions of this Decree.

E. Nothing herein shall be construed to limit the authority of the United States to undertake any action against any person, including the Defendant, in response to conditions which may present an imminent and substantial endangerment to the public health, welfare or the environment.

F. This Decree shall terminate at such time as all penalties that Defendant is obligated to pay hereunder have been paid in full, all construction and installation of required pretreatment equipment has been completed and Defendant has maintained continuous compliance with all applicable federal, state, and local pretreatment standards for a period of six consecutive months and EPA has so certified with all deliberate speed to the Court.

G. Notices required in this Decree, as applicable, shall be transmitted to the addressees noted in Exhibit B.

H. The parties agree and acknowledge that final approval and entry of this Decree is subject to the requirements of 28 C.F.R. Part 50.7.

843610026

946020473

For Plaintiff, United States of America:

F. HENRY HABICHT II
Assistant Attorney General
Land and Natural Resources
Division
United States Department
of Justice

7/5/87
Dated

THOMAS W. GREELISH
United States Attorney for
the District of New Jersey

By SUSAN C. CASSELL
Assistant U.S. Attorney

7/13/87
Dated

THOMAS L. ADAMS, JR.
Assistant Administrator
for Enforcement and
Compliance Monitoring
United States Environmental
Protection Agency

MAY 22 1987
Dated

CHARLES E. HOFFMANN
Assistant Regional Counsel
United States Environmental
Protection Agency, Region II

April 22, 1987
Dated

Of Counsel:

JOSEPH MORAN
Attorney
United States Environmental
Protection Agency

843610027

946020474

For Defendant, Automatic Electro-Plating Corp.

Gerald Bonillo - President
Title:

4-15-87
Dated

SO ORDERED

Dated: Newark, New Jersey
November 19, 1987

Maryanne Trump Barry
UNITED STATES DISTRICT JUDGE

843610028

946020475

8600086:01 December 12, 1989

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

UNITED STATES OF AMERICA,	: HON. MARYANNE TRUMP BARRY
PLAINTIFF,	: CIVIL ACTION NO. 86-0920
v.	: SATISFACTION OF JUDGMENT
AUTOMATIC ELECTRO-PLATING CORP:	
DEFENDANT,	:

DEC 1 [illegible]

The Judgment in the above-entitled case having been paid in full, the Clerk of the United States Court for the District of New Jersey is hereby authorized and requested to satisfy and cancel said judgment of record, as to defendant, Automatic Electro-Plating Corp.

SAMUEL A. ALITO JR.
UNITED STATES ATTORNEY

By: JANICE MONTANA
ASSISTANT U.S. ATTORNEY

Sworn and subscribed to
before me on this date
Today December 12, 1989

LISA R. HATCHER
Notary Public of New Jersey
My commission expires 4/7/94.

843610029

946020476

U.S. Department of Justice

United States Attorney
District of New Jersey

970 Broad Street, Room 502
Newark, New Jersey 07102

201-621-2700
FTS/348-2700

TCHA:CU

January 6, 1990 8600086/01

Automatic Electro-Plating Corp
165 Foundry St.
Newark, NJ 07105

Re: AUTOMATIC ELECTRO-PLATING CORP
Civil Action No. 86-6920

Dear Automatic Electro-Plating Corp:

Enclosed is a conformed copy of the Warrant For Satisfaction of Judgement filed in U.S. District Court.

The file is now marked "Paid In Full" and closed on the records of this office.

Thank you for your cooperation.

Very truly yours,

SAMUEL A. ALITO JR.
UNITED STATES ATTORNEY

By: Belinda Esteves
BELINDA ESTEVES
Legal Technician
Debt Collections Unit
(201621-2917

Enc.

JANICE MONTANA
ASSISTANT U.S. ATTORNEY

843610030

946020477

OCT 21 1992

Susan Cassell, Esq.
Assistant United States Attorney
District of New Jersey
970 Broad Street
Newark, New Jersey 07102

Re: U.S. v. Automatic Electro-Plating Corp.
Civil Action No. 86-0920 (MTB)

Dear Ms. Cassell:

The United States, on behalf of the Environmental Protection Agency entered into a Consent Decree with the Automatic Electro-Plating Corp. in the above matter, which Decree was entered by the Court on November 23, 1987. Under Paragraph X.F, the Decree would terminate when EPA certified to the court that the Defendant had met all the requirements of the Decree. I can report and certify that the Defendant has so complied with the Decree and the Decree may be terminated. May I ask that you kindly so inform the Court. Thank you.

Very truly yours,

Charles E. Hoffmann
Assistant Branch Chief
Water, Grants and General Law Branch

cc: ~~Automatic Electro-Plating Corp~~
Lourdes Bufill, Esq. LE-134W
Patrick Durack, P.E. 2 WM-WPC

843610031

946020478

(11)

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton, NJ 08625-0028
Tel. # 609-633-7141
Fax. # 609-777-4285

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

AUG 21 1991

Gerald Boriello
Automatic Electro-Plating Corp.
185 Foundry Street 19 - 22
Newark City, NJ 07105

RE: Automatic Electro-Plating Corp.
Newark City, Essex County
ECRA Case #89944

Dear Mr. Boriello:

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the affidavit signed by you and, based upon the information contained in this affidavit, the NJDEP hereby withdraws the above referenced ECRA Case. This determination is made in light of the termination of the contract of sale for the stock of Automatic Electro-Plating, thereby ending the transaction which triggered the Environmental Cleanup Responsibility Act (ECRA) (N.J.S.A. 13:1K-6 et seq.) review.

Any inaccuracies in the above referenced affidavit could alter this decision. Additionally, the current inapplicability of ECRA does not absolve Automatic Electro-Plating Corp. of any responsibilities it may have under any other environmental statutes and regulations, nor does the NJDEP waive its right to take any actions appropriate under same.

Finally, you are advised that a cessation of operations or a sale of those operations by Automatic Electro-Plating Corp., or a sale of the real property will once again subject this facility to our review. Consummation of any ECRA-affected transaction without compliance with ECRA is subject to fines of up to $25,000 per day.

If you have any questions regarding this matter, please contact Grace Jacob at (609) 633-7141.

Sincerely,

Kevin F. Kratina

Kevin F. Kratina, Acting Chief
Bureau of Environmental Evaluation
and Cleanup Responsibility Assessment

843610032

New Jersey Is an Equal Opportunity Employer
Recycled Paper

946020479

Gerald F. Mahoney

22 MILLSTREAM ROAD
U. SADDLE RIVER, NJ 07458

(201) 327-5987

4/5 interest

August 16, 1990

Mr. Gerald Borriello
260 Knoll Drive
Park Ridge, NJ 07656

Dear Jerry:

I reluctantly write this letter regarding the contract on Automatic Electro-Plating Corp. The contract was signed on November 22, 1989. Next week the contract will be nine months old and we still don't have a time frame to close. As you know Gerry Volkov and I put into an escrow fund a $50,000 deposit. We believe this money should be returned at this time along with the applicable interest. We are offically terminating the contract under section 10.1(b).

We both want to emphasize that we are still very interested in completing the acquisition of Automatic. We just believe this is too much money to be on deposit for such a long period of time. Once you receive ECRA clearance we would like to get together again and try and complete the deal.

Please have your attorney and escrow agent, Mr. Longley, send to me at the above address $40,000 plus applicable interest. Also please have him send $10,000 plus interest to Gennady Volkov at 1576 Rising Way, Mountainside, NJ 07092. 1/5 interest

It is unconscionable that our state government has taken so long on your ECRA application. I hope you receive clearance in the near future.

Sincerely,

Jerry

cc: J. J. Longley Esq.
Jeffrey A. Leighton Esq.
Gennady Volkov
Fidcol

843610033

946020480

TO WHOM IT MAY CONCERN

Re: ECRA Case No. 89944

1. I am the President of Automatic Electro-Plating Corp. located at 185 Foundry St., Newark, NJ 07105.

2. On November 22, 1989 a contract was signed to sell the business to one Gerald F. Mahoney and one Gennady Volkov, subject to ECRA approval before May 1, 1990.

3. Because delays caused by those administering the ECRA program, the May 1, 1990 deadline was not met.

4. Attached hereto is a true copy of the contract cancellation letter of 8/16/90 from the protected buyers. The deposit moneys were returned to them on 8/30/90 and the matter came to a close - Automatic Electro-Plating Corp.

having lost the sale.

843610034

Automatic Electro-Plating Corp.

946020481

13-B

ANALYTICAL
TESTING
LABORATORIES

840 Colfax Avenue . Kenilworth, NJ 07033 . 201-241-5040

NJDEPA CERTIFIED WASTEWATER LABORATORY ID NUMBER 20477

AUTOMATIC ELECTROPLATING
185 FOUNDRY STREET
NEWARK NJ 07105

ATT: MR GERRY BORRIELLO

Code No:10377
Customer No:A-042
Date Received:8/8/90
Date Sent:8/20/90
Sample Type: SOIL
Sample I.D: AE1L

COMPONENT	ANALYSIS (mg/kg)	DUPLICATE (mg/kg)
CHROMIUM	35.26	35.72 OK
ZINC	448.21	594.82 +
NICKEL	20.43	21.62 OK
LEAD	1,222.99	1,176.16 +
CADMIUM	1.691	1.654 OK

MOISTURE CONTENT 24.02 % BY wt.

REMARKS:

843610036

Dr. Michael Banhidi
Technical Director

946020482

253— LEASE (GILSEY) Advanced Revision

14-B

V S T

Copyright 1974 ® by ALL STATE LEGAL SUPPLY CO.
269 Sheffield St. Mountainside, N. J. 07092

This Lease Agreement, made the 1st day of March 1989,

Between FOUNDRY STREET CORPORATION (a NJ corporation)

residing or located at 185 Foundry St. in the City of Newark in the County of Essex and State of New Jersey, herein designated as the Landlord,

And

AUTOMATIC ELECTRO-PLATING CORP.

residing or located at 185 Foundry St. in the City of Newark in the County of Essex and State of New Jersey, herein designated as the Tenant;

Witnesseth that, the Landlord does hereby lease to the Tenant and the Tenant does hereby rent from the Landlord, the following described premises:

Buildings #19, #21, & #22 and adjacent parking lot of Building #19 as shown on the 10/10/75 survey of Richlan, Pupo & Pronesti, P.A.

for a term of ten (-10-) years commencing on March 1, 1989, and ending on February 28 19 99 to be used and occupied only and for no other purpose than metal plating and metal finishing

Upon the following Conditions and Covenants:

1st: The Tenant covenants and agrees to pay to the Landlord, as rent for and during the term hereof, the sum of Nine hundred five thousand, six hundred eight & 20/100ths ($905,608.20) as the minimum Basic Rent, payable monthly in accord with the schedule set forth in the attached Rider to this Lease.

2nd: The Tenant has examined the premises and has entered into this lease without any representation on the part of the Landlord as to the condition thereof. The Tenant shall take good care of the premises and shall at the Tenant's own cost and expense, make all repairs, including painting and decorating, and shall maintain the premises in good condition and state of repair, and at the end or other expiration of the term hereof, shall deliver up the rented premises in good order and condition, wear and tear from a reasonable use thereof, and damage by the elements not resulting from the neglect or fault of the Tenant, excepted. The Tenant shall neither encumber nor obstruct the sidewalks, driveways, yards, entrances, hallways and stairs, but shall keep and maintain the same in a clean condition, free from debris, trash, refuse, snow and ice.

3rd: The Tenant shall promptly comply with all laws, ordinances, rules, regulations, requirements and directives of the Federal, State and Municipal Governments or Public Authorities and of all their departments, bureaus and subdivisions, applicable to and affecting the said premises, their use and occupancy, for the correction, prevention and abatement of nuisances, violations or other grievances in, upon or connected with the said premises, during the term hereof; and shall promptly comply with all orders, regulations, requirements and directives of the Board of Fire Underwriters or similar authority and of any insurance companies which have issued or are about to issue policies of insurance covering the said premises and its contents, for the prevention of fire or other casualty, damage or injury, at the Tenant's own cost and expense.

4th: The Tenant shall not assign, mortgage or hypothecate this lease, nor sublet or sublease the premises or any part thereof; nor occupy or use the leased premises or any part thereof, nor permit or suffer the same to be occupied or used for any purposes other than as herein limited, nor for any purpose deemed unlawful, disreputable, or extra hazardous, on account of fire or other casualty.

5th: No alterations, additions or improvements shall be made, and no climate regulating, air conditioning, cooling, heating or sprinkler systems, television or radio antennas, heavy equipment, apparatus and fixtures, shall be installed in or attached to the leased premises, without the written consent of the Landlord. Unless otherwise provided herein, all such alterations, additions or improvements and systems, when made, installed in or attached to the said premises, shall belong to and become the property of the Landlord and shall be surrendered with the premises and as part thereof upon the expiration or sooner termination of this lease, without hindrance, molestation or injury.

6th: In case of fire or other casualty, the Tenant shall give immediate notice to the Landlord. If the premises shall be partially damaged by fire, the elements or other casualty, the Landlord shall repair the same as speedily as practicable, but the Tenant's obligation to pay the rent hereunder shall not cease. If, in the opinion of the Landlord, the premises be so extensively and substantially damaged as to render them untenantable, then the rent shall cease until such time as the premises shall be made tenantable by the Landlord. However, if, in the opinion of the Landlord, the premises be totally destroyed or so extensively and substantially damaged as to require practically a rebuilding thereof, then the rent shall be paid up to the time of such destruction and then and from thenceforth this lease shall come to an end. In no event however, shall the provisions of this clause become effective or be applicable, if the fire or other casualty and damage shall be the result of the carelessness, negligence or improper conduct of the Tenant or the Tenant's agents, employees, guests, licensees, invitees, sublenants, assignees or successors. In such case, the Tenant's liability for the payment of the rent and the performance of all the covenants, conditions and terms hereof on the Tenant's part to be performed shall continue and the Tenant shall be liable to the Landlord for the damage and loss suffered by the Landlord. If the Tenant shall have been insured against any of the risks herein covered, then the proceeds of such insurance shall be paid over to the Landlord to the extent of the Landlord's costs and expenses to make the repairs hereunder, and such insurance carriers shall have no recourse against the Landlord for reimbursement.

7th: The Tenant agrees that the Landlord and the Landlord's agents, employees or other representatives, shall have the right to enter into and upon the said premises or any part thereof, at all reasonable hours, for the purpose of examining the same or making such repairs or alterations therein as may be necessary for the safety and preservation thereof. This clause shall not be deemed to be a covenant by the Landlord nor be construed to create an obligation on the part of the Landlord to make such inspection or repairs.

8th: The Tenant agrees to permit the Landlord and the Landlord's agents, employees or other representatives to show the premises to persons wishing to rent or purchase the same, and Tenant agrees that on and after one year next preceding the expiration of the term hereof, the Landlord or the Landlord's agents, employees or other representatives shall have the right to place notices on the front of said premises or any part thereof, offering the premises for rent or for sale; and the Tenant hereby agrees to permit the same to remain thereon without hindrance or molestation.

843610037

946020483

23rd: *The various rights, remedies, options and elections of the Landlord, expressed herein, are cumulative, and the failure of the Landlord to enforce strict performance by the Tenant of the conditions and covenants of this lease or to exercise any election or option or to resort or have recourse to any remedy herein conferred or the acceptance by the Landlord of any installment of rent after any breach by the Tenant, in any one or more instances, shall not be construed or deemed to be a waiver or a relinquishment for the future by the Landlord of any such conditions and covenants, options, elections or remedies, but the same shall continue in full force and effect.*

24th: *All notices required under the terms of this lease shall be given and shall be complete by mailing such notices by certified or registered mail, return receipt requested, to the address of the parties as shown at the head of this lease, or to such other address as may be designated in writing, which notice of change of address shall be given in the same manner.*

25th: *The Landlord covenants and represents that the Landlord is the owner of the premises herein leased and has the right and authority to enter into, execute and deliver this lease; and does further covenant that the Tenant on paying the rent and performing the conditions and covenants herein contained, shall and may peaceably and quietly have, hold and enjoy the leased premises for the term aforementioned.*

26th: *This lease contains the entire contract between the parties. No representative, agent or employee of the Landlord has been authorized to make any representations or promises with reference to the within letting or to vary, alter or modify the terms hereof. No additions, changes or modifications, renewals or extensions hereof, shall be binding unless reduced to writing and signed by the Landlord and the Tenant.*

27th: Tenant shall, during the term of this lease, be responsible for providing its own heat as well as water, fire line, sewer, electricity and all other possible unitities. Tenant shall be responsible for the care and maintenance of the heating systems as well as the water meter in Building #21.

28th: Tenant shall be responsible, during the term of this lease, for the care and maintenance of all plumbing, sprinklers, windows, doorsand all other care and maintanance not specifically the responsibility of the Landlord. Landlord shall be responsible for the care and maintenance of the roofs, building exteriors, and the interior structural. However, these responsibilities shall shift to the tenant if the loss or deterioration is caused by tenant or anyone or entity connected to the tenant.

29th: Tenant shall obtain a policy of liability insurance of at least $2,000,000 with the Landlord listed as an Additional Insured. The policy shall have no co-insurance or deductible clauses. It shall be against loss to 3rd parties (including employees and others connected to or with the Tenant) related to Tenant's operations and general liability as to the overall premises leased. Landlord may insist on a larger policy as to policy limit at any time it reasonablly feels required to do so.

30th: Tenant shall obtain a Fire and Extended coverage policy as to each building, listed separately, with Landlord listed as the Named Insured, but with Tenant responsible for all premiums. The amount of coverage shall be as determined each year by the Landlord.

31st: Tenant shall pay to Landlord, as a separate form of monthly rent, at the same time as the Basic Rent is due, 50.00% of the Real Estate tax, and any assessments, due on the overall premises owned by Landlord at 185 Foundry St., Newark, NJ. Acknowledging that increases in Real Estate Taxes do not go into effect until each July 1st occurs, such increases will not go into effect and become due until the respective July 1st occurs. Payment shall be due from the Tenant to the Landlord on the 1st of the month preceding the date such taxes are due from the Landlord to the Municipality.

SEE RIDER

The Landlord may pursue the relief or remedy sought in any invalid clause, by conforming the said clause with the provisions of the statutes or the regulations of any governmental agency in such case made and provided as if the particular provisions of the applicable statutes or regulations were set forth herein at length.

In all references herein to any parties, persons, entities or corporations the use of any particular gender or the plural or singular number is intended to include the appropriate gender or number as the text of the within instrument may require. All the terms, covenants and conditions herein contained shall be for and shall inure to the benefit of and shall bind the respective parties hereto, and their heirs, executors, administrators, personal or legal representatives, successors and assigns.

In Witness Whereof, *the parties hereto have hereunto set their hands and seals, or caused these presents to be signed by their proper corporate officers and their proper corporate seal to be hereto affixed, the day and year first above written.*

Signed, Sealed and Delivered in the presence of or Attested by

Gerald Borriello, Secretary

Gerald Borriello, Secretary

FOUNDRY STREET CORPORATION

by: Frank Borriello

Frank Borriello, President

AUTOMATIC ELECTRO-PLATING CORP.

by: Gerald Borriello

Gerald Borriello, President

843610038

946020484

Damage Repairs

Tenant or the Tenant's agents, employees [illegible] repair the said damage or replace or restore any destroyed parts of the premises [illegible] cost and expense.

Signs

10th: The Tenant shall not place nor allow to be placed any signs of any kind whatsoever, upon, in or about the said premises or any part thereof, except of a design and structure and in or at such places as may be indicated and consented to by the Landlord in writing. In case the Landlord or the Landlord's agents, employees or representatives shall deem it necessary to remove any such signs in order to paint or make any repairs, alterations or improvements in or upon said premises or any part thereof, they may be so removed, but shall be replaced at the Landlord's expense when the said repairs, alterations or improvements shall have been completed. Any signs permitted by the Landlord shall at all times conform with all municipal ordinances or other laws and regulations applicable thereto.

Non-Liability of Landlord

11th: The Landlord shall not be liable for any damage or injury which may be sustained by the Tenant or any other person, as a consequence of the failure, breakage, leakage or obstruction of the water, plumbing, steam, sewer, waste or soil pipes, roof, drains, leaders, gutters, valleys, downspouts or the like or of the electrical, gas, power, conveyor, refrigeration, sprinkler, airconditioning or heating systems, elevators or hoisting equipment; or by reason of the elements; or resulting from the carelessness, negligence or improper conduct on the part of any other Tenant or of the Landlord or the Landlord's or this or any other Tenant's agents, employees, guests, licensees, invitees, subtenants, assignees or successors; or attributable to any interference with, interruption of or failure, beyond the control of the landlord, of any services to be furnished or supplied by the Landlord.

Mortgage Priority

12th: This lease shall not be a lien against the said premises in respect to any mortgages that may hereafter be placed upon said premises. The recording of such mortgage or mortgages shall have preference and precedence and be superior and prior in lien to this lease, irrespective of the date of recording and the Tenant agrees to execute any instruments, without cost, which may be deemed necessary or desirable, to further effect the subordination of this lease to any such mortgage or mortgages. A refusal by the Tenant to execute such instruments shall entitle the Landlord to the option of cancelling this lease, and the term hereof is hereby expressly limited accordingly.

Security

13th: The Tenant has this day deposited with the Landlord the sum of $ NONE as security for the payment of the rent hereunder and the full and faithful performance by the Tenant of the covenants and conditions on the part of the Tenant to be performed. Said sum shall be returned to the Tenant, without interest, after the expiration of the term hereof, provided that the Tenant has fully and faithfully performed all such covenants and conditions and is not in arrears in rent. During the term hereof, the Landlord may, if the Landlord so elects, have recourse to such security, to make good any default by the Tenant, in which event the Tenant shall, on demand, promptly restore said security to its original amount. Liability to repay said security to the Tenant shall run with the reversion and title to said premises, whether any change in ownership thereof be by voluntary alienation or as the result of judicial sale, foreclosure or other proceedings, or the exercise of a right of taking or entry by any mortgagee. The Landlord shall assign or transfer said security, for the benefit of the Tenant, to any subsequent owner or holder of the reversion or title to said premises, in which case the assignee shall become liable for the repayment thereof as herein provided, and the assignor shall be deemed to be released by the Tenant from all liability to return such security. This provision shall be applicable to every alienation or change in title and shall in no wise be deemed to permit the Landlord to retain the security after termination of the Landlord's ownership of the reversion or title. The Tenant shall not mortgage, encumber or assign said security without the written consent of the Landlord.

Increase of Insurance Rates

14th: If for any reason it shall be impossible to obtain fire and other hazard insurance on the buildings and improvements on the leased premises, in an amount and in the form and in insurance companies acceptable to the Landlord, the Landlord may, if the Landlord so elects at any time thereafter, terminate this lease and the term hereof, upon giving to the Tenant fifteen days notice in writing of the Landlord's intention so to do, and upon the giving of such notice, this lease and the term thereof shall terminate. If by reason of the use to which the premises are put by the Tenant or character of or the manner in which the Tenant's business is carried on, the insurance rates for fire and other hazards shall be increased, the Tenant shall upon demand, pay to the Landlord, as rent, the amounts by which the premiums for such insurance are increased. Such payment shall be paid with the next installment of rent but in no case later than one month after such demand, whichever occurs sooner.

Utilities

15th: The Tenant shall pay when due all the rents or charges for water or other utilities used by the Tenant, which are or may be assessed or imposed upon the leased premises or which are or may be charged to the Landlord by the suppliers thereof during the term hereof, and if not paid, such rents or charges shall be added to and become payable as additional rent with the installment of rent next due or within [illegible] days of demand therefor, whichever occurs sooner.

Condemnation Eminent Domain

16th: If the land and premises leased herein, or of which the leased premises are a part, or any portion thereof, shall be taken under eminent domain or condemnation proceedings, or if suit or other action shall be instituted for the taking or condemnation thereof, or if in lieu of any formal condemnation proceedings or actions, the Landlord shall grant an option to purchase and or shall sell and convey the said premises or any portion thereof, to the governmental or other public authority, agency, body or public utility, seeking to take said land and premises or any portion thereof, then this lease, at the option of the Landlord, shall terminate, and the term hereof shall end as of such date as the Landlord shall fix by notice in writing; and the Tenant shall have no claim or right to claim or be entitled to any portion of any amount which may be awarded as damages or paid as the result of such condemnation proceedings or paid as the purchase price for such option, sale or conveyance in lieu of formal condemnation proceedings; and all rights of the Tenant to damages, if any, are hereby assigned to the Landlord. The Tenant agrees to execute and deliver any instruments, at the expense of the Landlord, as may be deemed necessary or required to expedite any condemnation proceedings or to effectuate a proper transfer of title to such governmental or other public authority, agency, body or public utility seeking to take or acquire the said lands and premises or any portion thereof. The Tenant covenants and agrees to vacate the said premises, remove all the Tenant's personal property therefrom and deliver up peaceable possession thereof to the Landlord or to such other party designated by the Landlord in the aforementioned notice. Failure by the Tenant to comply with any provisions in this clause shall subject the Tenant to such costs, expenses, damages and losses as the Landlord may incur by reason of the Tenant's breach hereof.

Remedies upon Tenant's Default

17th: If there should occur any default on the part of the Tenant in the performance of any conditions and covenants herein contained, or if during the term hereof the premises or any part thereof shall be or become abandoned or deserted, vacated or vacant, or should the Tenant be evicted by summary proceedings or otherwise, the Landlord, in addition to any other remedies herein contained or as may be permitted by law, may either by force or otherwise, without being liable for prosecution therefor, or for damages, re-enter the said premises and the same have and again possess and enjoy; and as agent for the Tenant or otherwise, re-let the premises and receive the rents therefor and apply the same, first to the payment of such expenses, reasonable attorney fees and costs, as the Landlord may have been put to in re-entering and repossessing the same and in making such repairs and alterations as may be necessary; and second to the payment of the rents due hereunder. The Tenant shall remain liable for such rents as may be in arrears and also the rents as may accrue subsequent to the re-entry by the Landlord, to the extent of the difference between the rents reserved hereunder and the rents, if any, received by the Landlord during the remainder of the unexpired term hereof, after deducting the aforementioned expenses, fees and costs; the same to be paid as such deficiencies arise and are ascertained each month.

Termination on Default

18th: Upon the occurrence of any of the contingencies set forth in the preceding clause, or should the Tenant be adjudicated a bankrupt, insolvent or placed in receivership, or should proceedings be instituted by or against the Tenant for bankruptcy, insolvency, receivership, agreement of composition or assignment for the benefit of creditors, or if this lease or the estate of the Tenant hereunder shall pass to another by virtue of any court proceedings, writ of execution, levy, sale, or by operation of law, the Landlord may, if the Landlord so elects, at any time thereafter, terminate this lease and the term hereof, upon giving to the Tenant or to any trustee, receiver, assignee or other person in charge of or acting as custodian of the assets or property of the Tenant, five days notice in writing, of the Landlord's intention so to do. Upon the giving of such notice, this lease and the term hereof shall end on the date fixed in such notice as if the said date was the date originally fixed in this lease for the expiration hereof; and the Landlord shall have the right to remove all persons, goods, fixtures and chattels therefrom, by force or otherwise, without liability for damages.

Removal of Tenant's Property

19th: Any equipment, fixtures, goods or other property of the Tenant, not removed by the Tenant upon the termination of this lease, or upon any quitting, vacating or abandonment of the premises by the Tenant, or upon the Tenant's eviction, shall be considered as abandoned and the Landlord shall have the right, without any notice to the Tenant, to sell or otherwise dispose of the same, at the expense of the Tenant, and shall not be accountable to the Tenant for any part of the proceeds of such sale, if any.

Reimbursement of Landlord

20th: If the Tenant shall fail or refuse to comply with and perform any conditions and covenants of the within lease, the Landlord may, if the Landlord so elects, carry out and perform such conditions and covenants, at the cost and expense of the Tenant; and the said cost and expense shall be payable on demand, or at the option of the Landlord shall be added to the installment of rent due immediately thereafter but in no case later than one month after such demand, whichever occurs sooner, and shall be due and payable as such. This remedy shall be in addition to such other remedies as the Landlord may have hereunder by reason of the breach by the Tenant of any of the covenants and conditions in this lease contained.

Non-Performance by Landlord

21st: This lease and the obligation of the Tenant to pay the rent hereunder and to comply with the covenants and conditions hereof, shall not be affected, curtail[illegible] impaired or excused because of the Landlord's inability to supply any service or material called for herein, by reason of any rule, order, regulation or preemption by any governmental entity, authority, department, agency or subdivision or for any delay which may arise by reason of negotiations for the adjustment of any fire or other casualty loss or because of strikes or other labor trouble or for any cause beyond the control of the Landlord.

Validity of Lease

22nd: The terms, conditions, covenants and provisions of this lease shall be deemed to be severable. If any clause or provision herein contained shall be adjudged to be invalid or unenforceable by a court of competent jurisdiction or by operation of any applicable law, it shall not affect the validity of any other clause or provision herein, but such other clauses or provisions shall remain in full force and effect.

843610039

946020485

State of New Jersey, County of ... Be it Remembered,
that on 19 , before me, the subscriber,

personally appeared

who, I am satisfied, the person named in and who executed the within Instrument, and thereupon acknowledged that signed, sealed and delivered the same as act and deed, for the uses and purposes therein expressed.

State of New Jersey, County of UNION ss.: Be it Remembered,
that on March 1989, before me, the subscriber,
a Notary Public
personally appeared Gerald Borriello
who, being by me duly sworn on his oath, deposes and makes proof to my satisfaction, that he is the Secretary of Foundry Street Corporation the Corporation named in the within Instrument;
that Frank Borriello is the President of said Corporation; that the execution, as well as the making of this Instrument, has been duly authorized by a proper resolution of the Board of Directors of the said Corporation; that deponent well knows the corporate seal of said Corporation; and that the seal affixed to said Instrument is the proper corporate seal and was thereto affixed and said Instrument signed and delivered by said President as and for the voluntary act and deed of said Corporation, in presence of deponent, who thereupon subscribed his name thereto as attesting witness.

Sworn to and subscribed before me,
the date aforesaid.

Notary Public Gerald Borriello

J. J. LONGLEY, ESQ.
426 Springfield Avenue
P.O. Box 698
Summit, New Jersey 07902
(201) 273-8110

Lease.

TO

Dated, 9

Expires

Rent, $

State of New Jersey, County of UNION ss.: Be it Remembered,
that on March 1989, before me, the subscriber,
A Notary Public
personally appeared Gerald Borriello
who, being by me duly sworn on his oath, deposes and makes proof to my satisfaction, that he is the Secretary of Automatic Elector-Plating Corp. the Corporation named in the within Instrument;
that Gerald Borriello is the President of said Corporation; that the execution, as well as the making of this Instrument, has been duly authorized by a proper resolution of the Board of Directors of the said Corporation; that deponent well knows the corporate seal of said Corporation; and that the seal affixed to said Instrument is the proper corporate seal and was thereto affixed and said Instrument signed and delivered by said President as and for the voluntary act and deed of said Corporation, in presence of deponent, who thereupon subscribed his name thereto as attesting witness.

Sworn to and subscribed before me,
the date aforesaid.

Notary Public Gerald Borriello

J. J. LONGLEY, ESQ.
426 Springfield Avenue
P.O. Box 698
Summit, New Jersey 07902
(201) 273-8110

843610040

946020486

RIDER

Landlord: FOUNDRY STREET CORPORATION

Tenant: AUTOMATIC ELECTRO-PLATING CORP.

Premises: 185 Foundry St., Newark, NJ 07105

Lease Date: 3/01/89 - 10 years

Where appropiate, the following paragraphs are modified or added to in the basic printed contract as follows:

1st: Tenant's Basic Rent shall be payable monthly with the first payment due on March 1, 1989. It shall increase each year by the higher of 5% of the just past year's rent or the increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers for New York-Northeastern N.J. figure expressed as the Index number for the then current March divided by the Index number for the just prior March, times the rent for the just prior year. The minimum Basic Rent amounts, assuming the Consumer Price Index approach does not go into effect, will be:

Year	Annually	Monthly
1	$ 72,000.00	$ 6,000.00
2	75,600.00	6,300.00
3	79,380.00	6,615.00
4	83,349.00	6,945.75
5	87,515.48	7,293.04
6	91,892.28	7,657.69
7	96,486.84	8,040.57
8	101,311.20	8,442.60
9	106,376.76	8,864.73
10	111,695.64	9,307.97
	$ 905,608.20	

There shall be a 5 day grace period as to the payment of the (Basic) Rent as well as to the separate Rent specified in Paragraph 31st. A late payment fee of 5% of the amount shall be due and payable for each payment not received by Landlord within the 5 days. This penalty shall be cumulative to cover each month a particular payment has not been made thereafter.

843610041

946020487

32nd: Tenant shall have the option to terminate this lease as of the end of the fifth year of this lease providing it shall give Landlord at least one full year's written notice. Tenant shall then comply with the Environmental Requirements found later in this Lease that apply to any lease termination.

33rd: Notwithstanding Paragraph 4th, Tenant may assign or sublet the premises upon obtaining Landlord's written permission, which shall not be unreasonably withheld. However:

(a) As a condition precedent to Tenant's right to sublease the premises or to assign this lease, Tenant shall, at Tenant's own expense, first comply with ECRA and fulfill all of Tenant's environmental obligations under this lease pursuant to the Environmental provisions of this lease which also arise upon termination of Tenant's lease term. If this condition shall not be satisfied, then Landlord shall have the right to withhold consent to sublease or assignment.

(b) Tenant shall promptly furnish to Landlord true and complete copies of all documents, submissions and correspondence provided by Tenant to the Element and all documents, reports, directives and correspondence provided by the Element to Tenant. Tenant shall also promptly furnish to Landlord true and complete copies of all sampling and test results obtained from samples and tests taken at and around the premises. Tenant shall notify Landlord in advance of all meetings scheduled between Tenant and the NJEDA or other such governmental agencies, which Landlord may attend.

(c) Any such Assignment or Sub-lease shall in no way relieve Tenant from any obligations or responsibilities under this Lease.

843610042

946020488

34th: The Tenant shall have the following Environmental duties under this Lease, as well as under any prior Leases it had in the past with Landlord:

(a) Tenant shall, at Tenant's own expense, comply with the Environmental Cleanup Responsibility Act, N.J.S.A. 13:1K-6 et seq., the regulations promulgated thereunder and any successor legislation and regulations ("ECRA"). Tenant shall, at Tenant's own expense, make all submissions to, provide all information to, and comply with all requirements of, the Industrial Site Evaluation or its successor ("Element") of the New Jersey Department of Environmental Protection or its successor ("NJDEP").

(b) Tenant's obligations under this paragraph shall arise if there is any closing, terminating or transferring of operations of an industrial establishment at the premises pursuant to ECRA, whether triggered by Landlord or Tenant.

(c) Provided this lease is not previously cancelled or terminated by either party or by operation of law, Tenant shall commence its submission to the Element in anticipation of the end of the lease term no later than one (1) year prior to the expiration of the lease term. Tenant shall promptly furnish to Landlord true and complete copies of all documents, submissions, correspondence and oral or written communications provided by Tenant to the Element, and all documents, reports, directives, correspondence and oral or written communications by the Element to Tenant. Tenant shall also promptly furnish to Landlord true and complete copies of all sampling and test results and reports obtained and prepared from samples and tests taken at and around the premises. Tenant shall notify Landlord in advance of all meetings scheduled between Tenant and NJDEP, and Landlord may attend all such meetings.

(d) Should the Element or any other division of NJDEP determine that a cleanup plan be prepared and that a cleanup be undertaken because of a spill or discharge of a hazardous substance or waste at the premises which occurred during the term of the lease, Tenant shall, at Tenant's own expense, promptly prepare and submit the required plans and financial assurances and shall promptly carry out the approved plans.

(e) At no expense to Landlord, Tenant shall promptly provide all information requested by Landlord or NJDEP for preparation of a non-applicability affidavit, de minimus quantity exemption application, limited conveyance application or other submission and shall promptly sign such affidavits and submissions when requested by Landlord or NJDEP.

843610043

946020489

(f) Should Tenant's operations at the premises be outside of those industrial operations covered by ECRA, Tenant shall, at Tenant's own expense, obtain a letter of non-applicability or de minimus quantity exemption from the Element prior to termination of the lease term and shall promptly provide Tenant's submission and the Element's exemption letter to Landlord. Should Tenant obtain a letter of non-applicability or de minimus quantity exemption from the Element, then Tenant shall, at Landlord's option, hire a consultant satisfactory to Landlord to undertake sampling at the premises sufficient to determine whether or not Tenant's operations have resulted in a spill or discharge of a hazardous substance or waste at or around the premises. Tenant's sampling shall, at a minimum, establish the integrity of all underground storage tanks at the premises. Should the sampling reveal any spill or discharge of a hazardous substance or waste, then Tenant shall, at Tenant's expense, promptly clean up the premises to the satisfaction of Landlord and NJDEP.

(g) If Tenant fails to obtain either: (i) a non-applicability letter; (ii) a de minimus quantity exemption; (iii) a negative declaration; or (iv) final approval of cleanup; (collectively referred to as "ECRA Clearance") from the Element; or fails to clean up the premises pursuant to subparagraph (f) above, prior to the expiration or earlier termination of the lease term, then upon the expiration or earlier termination of the lease term Landlord shall have the option either to consider the lease as having ended or to treat Tenant as a holdover tenant in possession of the premises. If Landlord considers the lease as having ended, then Tenant shall nevertheless be obligated to promptly obtain ECRA Clearance and to fulfill the obligations set forth in subparagraph (f) above. If Landlord treats Tenant as a holdover tenant in possession of the premises, then Tenant shall monthly pay to Landlord double the regular and additional monthly rent which Tenant would otherwise have paid, until such time as Tenant obtains ECRA Clearance and fulfills its obligations under subparagraph (f) above, and during the holdover period all of the terms of this lease shall remain in full force and effect.

(h) Tenant represents and warrants to Landlord that Tenant intends to use the premises for metal plating and metal finishing, which operations have the following Standard Industrial Classification ("S.I.C.") numbers as defined by the most recent edition of the Standard Industrial Classification Manual published by the Federal Executive Office of the President, Office of Management and Budget: 3471. Tenant's use of the premises shall be restricted to the classifications set forth above unless Tenant obtains Landlord's prior written consent to any change in use of the premises. Prior to the commencement date of Tenant's lease term, Tenant shall supply to Landlord an affidavit of an officer of Tenant ("Officer's Affidavit") setting

843610044

946020490

forth Tenant's S.I.C. numbers and a detailed description of the operations and processes Tenant will undertake at the premises, organized in the form of a narrative report including a description and quantification of hazardous substances and wastes to be generated, manufactured, refined, transported, treated, stored, handled or disposed of at the premises. Following commencement of the lease term, Tenant shall notify Landlord by way of Officer's Affidavit as to any changes in Tenant's operation, S.I.C. number or use or generation of hazardous substances and wastes, by way of a supplemental Officer's Affidavit. Tenant shall also supplement and update Officer's Affidavit upon each anniversary of the commencement of the lease term. Tenant shall not commence or alter any operations at the premises prior to (i) obtaining all required operating and discharge permits or approvals, including but not limited to air pollution control permits and pollution discharge elimination system permits from NJDEP, from all governmental or public authorities having jurisdiction over Tenant's operations or the premises, and (ii) providing copies of permits or approvals to Landlord.

(i) Tenant shall permit Landlord and Landlord's agents, servants and employees, including but not limited to legal counsel and environmental consultants and engineers, access to the premises for the purposes of environmental inspections and sampling during regular business hours, or during other hours either by agreement of the parties or in the event of any environmental emergency. Tenant shall not restrict access to any part of the premises, and Tenant shall not impose any conditions to access. In the event that Landlord's environmental inspection shall include sampling and testing of the premises, Landlord shall use its best efforts to avoid interfering with Tenant's use of the premises, and upon completion of sampling and testing shall repair and restore the affected areas of the premises from any damage caused by the sampling and testing.

(j) Tenant shall indemnify, defend and hold harmless Landlord from and against all claims, liabilities, losses, damages and costs, foreseen or unforeseen, including without limitation counsel, engineering and other professional or expert fees, which Landlord may incur by reason of Tenant's action or nonaction with regard to Tenant's obligations under this paragraph.

(k) This paragraph shall survive the expiration or earlier termination of this lease. Tenant's failure to abide by the terms of this paragraph shall be restrainable by injunction.

Reporting Requirements: Tenant shall promptly supply Landlord with copies of all notices, reports, correspondence and submissions made by Tenant to EPA, NJDEP, the United States Occupational Safety and Health Administration or any other local, state or federal authority which requires submission of any information concerning environmental matters or hazardous wastes

843610045

946020491

or substances pursuant to laws including but not limited to the New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. and the regulations promulgated thereunder (the "Spill Act"), the Worker and Community Right to Know Act, N.J.S.A. 34:5A-1 et seq. and the regulations promulgated thereunder, the Hazardous Substance Discharge -- Reports and Notices Act, N.J.S.A. 13:1K-15 et seq. and the regulations promulgated thereunder, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 et seq. and the regulations promulgated thereunder, and the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. and the regulations promulgated thereunder.

Environmental Liens. Tenant shall promptly notify Landlord as to any liens threatened or attached against the premises pursuant to the Spill Act or any other environmental law. In the event that such a lien is filed against the premises, then Tenant shall, within thirty days from the date that the lien is placed against the premises, and at any rate prior to the date any governmental authority commences proceedings to sell the premises pursuant to the lien, either: (a) pay the claim and remove the lien from the premises; or (b) furnish either (i) a bond satisfactory to Landlord in the amount of the claim out of which the lien arises, (ii) a cash deposit in the amount of the claim out of which the lien arises, or (iii) other security satisfactory to the Landlord in an amount sufficient to discharge the claim out of which the lien arises.

35th: This Lease shall be considered made and to be performed and construed in New Jersey and under the laws of New Jersey. It shall be enforced using the Courts of the State of New Jersey only. Service of Process shall be fully accomplished upon the mailing of the appropiate Summons & Complaint both by Certified Mail - Return Receipt and by regular mail, to the last known address of the other party(ies). Proof of receipt shall not be required.

IN WITNESS WHEREOF, the representatives of the corporate parties have set their hands and seals on this day of , 1989 to this Rider to the main Lease Agreement.

attest:

Gerald Borriello, Secretary

FOUNDRY STREET CORPORATION

BY: Frank Borriello, President

Gerald Borriello, Secretary

AUTOMATIC ELECTOR-PLATING, INC.

by: Gerald Borriello, President

843610046

946020492

B. 29 - SM 1-59

15-D

Fidelity Union Trust Company

I, Frank Borriello the undersigned, Secretary of Automatic Electroplating Corp.

do hereby certify that the following is a true copy of a resolution duly adopted at a ~~regular~~ special meeting of the Board of Directors of the said Corporation duly held at Newark N.J. on the 21st day of September 1960, a quorum being present, and that the said resolution is in full force and effect at this date:

"Resolved: that Frank Borriello the Treasurer of Automatic Electroplating Corp. is authorized and instructed to continue open a deposit account for and in the name of this Corporation with the FIDELITY UNION TRUST COMPANY in the City of Newark, to deposit therein funds of this Corporation to be withdrawn until further notice in writing to said Trust Company only by check signed in the name of this Corporation by Frank Borriello Treasurer

or and

or and

or by promissory note, draft or bill of exchange made payable at the said Trust Company, when signed in like manner and by the same officers."

The above resolution is in accord with the By-Laws of this Corporation.

The following are the officers of this Company, elected at the meeting of the Board of Directors held on the 21st day of September 1960;

Carl Houpert President

Frank Borriello Secretary Treasurer

In Witness Whereof, I have hereunto affixed my official signature and the seal of the said Corporation, this 21st day of September 1960.

843610047

SEAL

Secretary

946020493

J. J. LONGLEY
Attorney at Law
426 Springfield Avenue • P.O. Box 698 • Summit, New Jersey 07901 • Phone (201) 273-8110

TO Gerald Borriello
Automatic Electro-Plating Corp.
185 Foundry St.
Newark, NJ 07105

DATE February 10, 1987

SUBJECT Name Change

Dear Jerry:

Here is a copy of the Certificate showing that the corporate name has been changed back to the original name.

Regards,

J. J. Longley

Encl

Item # MLBN72 · Wheeler Group Inc., 1982

FOLD AT (-) TO FIT DRAWING BOARD ENVELOPE # EW10P

843610048

946020494

FILED

FEB 3 1987

JANE BURGIO
Secretary of State

Form C-102a
Rev. 7-1-71

CERTIFICATE OF AMENDMENT TO THE

CERTIFICATE OF INCORPORATION OF

GERALD BORRIELLO, INC.

(For Use by Domestic Corporations Only)

To: The Secretary of State
State of New Jersey

Pursuant to the provisions of Section 14A:9-2(4) and Section 14A:9-4(3), Corporations, General, of the New Jersey Statutes, the undersigned corporation executes the following Certificate of Amendment to its Certificate of Incorporation:

1. The name of the corporation is GERALD BORRIELLO, INC.

2. The following amendment to the Certificate of Incorporation was approved by the directors and thereafter duly adopted by the shareholders of the corporation on the 7th day of January, 19 87:

Resolved, that Article 1st of the Certificate of Incorporation be amended to read as follows:

The name of the corporation is AUTOMATIC ELECTRO-PLATING CORP.

3. The number of shares outstanding at the time of the adoption of the amendment was 2,000. The total number of shares entitled to vote thereon was 2,000.

4. The number of shares voting for and against such amendment is as follows: (If the shares of any class or series are entitled to vote as a class, set forth the number of shares of each such class and series voting for and against the amendment, respectively.)

Number of Shares Voting For Amendment	Number of Shares Voting Against Amendment
2,000	0

843610049

946020495

Vinson & Elkins
ATTORNEYS AT LAW
VINSON & ELKINS L.L.P.
ONE AMERICAN CENTER
SUITE 2700
600 CONGRESS AVENUE
AUSTIN, TEXAS 78701-3200
TELEPHONE (512) 495-8400
FAX (512) 495-8612

WRITER'S TELEPHONE

(512) 495-8568

August 9, 1996

VIA FEDERAL EXPRESS

Mr. Lance Richman
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
Room W-20
New York, New York 10007-1866

Re: Automatic Electroplating Corporation

Dear Lance:

Enclosed please find a memorandum concerning Automatic Electroplating Corporation's Response to EPA's Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act.

Please do not hesitate to contact me if you or any members of your team have questions or comments. We look forward to working with you.

Very truly yours,

Amanda G. Birrell /elp

Amanda G. Birrell

0695:5459
Enclosure

cc: Amelia Wagner
Gerald R. Connolly

843600001

946020497

MEMORANDUM

August 9, 1996

TO: Lance Richman

FROM: Chemical Land Holdings, Inc. on Behalf of Occidental Chemical Corporation

RE: Automatic Electroplating Corporation

Purpose and Scope: *This memorandum comments on Automatic Electroplating Corporation's* ("AEP") Response (the "Response") to EPA's Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), and outlines the evidence that AEP is a Potentially Responsible Party ("PRP") for the Passaic River Study Area within the meaning of CERCLA, 42 U.S.C. § 9601, *et seq*. This memorandum requests EPA to notify AEP that it is a PRP for the Passaic River Study Area.

Conclusion: Either AEP admits or there is evidence to support a determination that all of the elements of a CERCLA liability claim against AEP are present. Briefly,

- AEP generated hazardous substances;
- These hazardous substances were discharged directly and indirectly to the Passaic River; and
- Passaic River sediments reflects these discharges.

Discussion: AEP is a privately held company that has been under the control of the Borriello family since its inception in 1960. In 1989, AEP reported sales of approximately $1 million and the company's land was assessed at value in excess of $350,000. AEP has been operating an electroplating business at the Foundry Street complex since 1970.

A. AEP Generated Hazardous Substances

AEP admits that it has operated a nickel and zinc electroplating business at 185 Foundry Street since 1970. Response to Question 1. The Foundry Street site is a complex of buildings occupied by a variety of chemical manufacturing industries. AEP occupies buildings #19, #21 and #22 as indicated by the diagram attached at Tab A.

AEP has admitted using materials containing nickel, zinc, silver, copper, chromium and cyanide. *See* Response to Question 1 and Excerpt from New Jersey Department of Environmental Protection ("DEP"), Responsible Party Investigation ("DEP Report") attached at Tab B, p. 43. Tests of its effluent and its discharge reflect these hazardous substances. For example, an effluent sample taken in December 1979 during "normal" operations contained arsenic, lead, cadmium, copper, nickel, zinc and chromium. *See* Excerpt from DEP Report attached at Tab B, p. 43. In addition, the

PVSC Heavy Metal Source Determination Study documented discharges in the influent to the PVSC system of cadmium, copper, lead, nickel and zinc from the AEP facility. *See* Excerpt from PVSC Heavy Metal Source Determination Study at Tab C.

The buildings at the Foundry Street site are separated by narrow driveways which have strip drains in the middle of the lane. These drains are connected to an industrial sewer line in Roanoke Avenue. *See* Excerpt from DEP Report attached at Tab B, pp. 1, 42. The drainage system borders the AEP facility on its north, west and south sides, and receives both point source and surface run-off water from AEP. *Id.* Process lines from buildings #21 and #22 discharge into the drain on the north side. *Id.* at 42 and Response to Question 6(e). High concentrations of lead, arsenic, cadmium, copper, mercury, silver, zinc and chromium were detected in a surface water sample taken from this drain by the DEP in October 1988. *Id.* at 42. This drain connects with a sewer line from a sanitary source at a catch basin at the northwest corner of building #21. Elevated levels of lead, cadmium, copper, nickel, zinc, chromium, volatile organic compounds, PCBs and organic acids were detected in a sediment sample collected from the catch basin by the DEP in July 1990. *Id.* Discharges from the Foundry Street Complex ultimately flow to the Roanoke Avenue combined sewer. *See* Diagram of Discharge Flow attached at Tab D.

AEP discharged effluent to the PVSC before the Clean Water Act, and so AEP now is subject to the Electroplating Point Source Category standards for existing sources. Response to Question 4. Discharge of AEP's waste stream is currently regulated by the PVSC under permit #2040-1122. AEP has had difficulty maintaining its discharges within the permitted parameters. In January of 1986, EPA found AEP in violation of § 307 and § 308 of the Clean Water Act and filed a civil complaint to enjoin the discharges in the Federal District Court for the District of New Jersey. Almost two years later, a consent decree was entered in settlement of the action that required AEP to monitor its effluent continuously for cyanide, lead, cadmium, and pH until six consecutive months of continuous compliance was achieved. Response to Question 10 (consent decree). Even so, it was not until four years later that the EPA certified to the court that AEP was in compliance. *Id.* (Letter from EPA to Assistant United States Attorney, District of New Jersey). AEP also paid a $100,000 penalty.

B. These Hazardous Substances were Discharged Directly and Indirectly to the Passaic River

AEP has discharged its process effluent to the PVSC since it started business at the facility in 1970. Response to Question 6(b). The facility is within the Roanoke Avenue CSO collection system. In 1978, an investigation by the PVSC determined that the regulator that controlled the diversion of material in this collection district was broken in the open position. As a result, all material collected in this area, including the effluent discharged by AEP, was bypassed directly to the Passaic River. *See* Excerpt from Clinton Bogert Associates Report attached at Tab E.

AEP's process effluent was also discharged to the River by the PVSC when the Roanoke Avenue storm sewer was functioning as designed. As we have discussed, effluent committed to the collection system was periodically bypassed untreated to the Passaic River to avoid overloading the

843600003

946020499

PVSC's collection system. *See Report on Industrial Waste Streams By Passed to the Passaic River* submittted to EPA in August 1994.

In addition to these direct and indirect discharges, however, AEP's process wastes were discharged to the Passaic River through flooding and surface water transport. An inspection of the Foundry Street complex by the DEP in November 1990 revealed that many sections of the drains on the property had collapsed or were broken. *See* Excerpt from DEP Report attached at Tab B, p. 41. These drains frequently flooded during rainstorms,[1] and contaminants would be carried to the Passaic River when the flood waters receded. The EPA has also already determined that runoff from the site migrates to storm drains that discharge directly into the Passaic River. *See* EPA Potentially Hazardous Waste Site Preliminary Assessment attached at Tab F.

A soil sample from the AEP facility in 1990 was contaminated with over **1 g/Kg** of lead and approximately **0.5 g/Kg** of zinc. Levels of cadmium and nickel were also reported. Response to Question 13(b). The DEP documented in 1988 that the soil of the Foundry Street complex was contaminated throughout the site with metals and numerous organic contaminants. *See* Excerpt from DEP report attached at Tab B, p. 16-20. Groundwater at this site is also contaminated with metals and various organic chemicals including PCBs. *Id.* at 18. The EPA noted that groundwater contamination from this site may migrate to the Passaic River and Newark Bay. *See* EPA Potentially Hazardous Waste Site Preliminary Assessment attached at Tab F.

C. River Sediments Reflect These Discharges

Passaic River sediments reflect the discharges of AEP from the Foundry Street site. Values for metals from samples taken in December 1992 and June 1993 from locations in the lower Passaic River adjacent to the AEP discharge point are given in the following Table.

December 1992 - Sample # 62

Depth (feet)	Arsenic (mg/Kg)	Lead (mg/Kg)	Nickel (mg/Kg)	Copper (mg/Kg)	Cadmium (mg/Kg)	Zinc (mg/Kg)
Surface	12.7	239	64	225	5.0	481
1.83	21.9	657	84	460	13.5	1110
3.83	10.8	385	61	290	95	813

[1] *See* Response to Question 9(b) (indicating 5 floods in an 8 month period); DEP Report at 43 behind Tab B.

843600004

946020500

June 1993 - Sample # 100

Depth (feet)	Arsenic (mg/Kg)	Lead (mg/Kg)	Nickel (mg/Kg)	Copper (mg/Kg)	Cadmium (mg/Kg)	Zinc (mg/Kg)
Surface	8.9	238	178	237	7.9	478
5.33	33.4	535	17.7	683	7.8	609
9.00	12.1	669	9.5	247	2.5	212
12.67	6.8	59	9.8	43	2.3	97

Sources of Hazardous Substances in the PASSAIC RIVER STUDY AREA

POTENTIALLY RESPONSIBLE PARTY:

AUTOMATIC ELECTROPLATING CORPORATION

PREPARED BY:
CHEMICAL LAND HOLDINGS, INC.
ON BEHALF OF THE
OCCIDENTAL CHEMICAL CORPORATION

843600006

946020502

INDEX OF DOCUMENTS IN SUPPORT OF
COMMENTS CONCERNING
AUTOMATIC ELECTROPLATING CORPORATION

TAB A: Diagram of Foundry Street Complex

This diagram indicates that Automatic Electroplating occupies buildings #19, #21, and #22 at the Foundry Street complex.

TAB B: Excerpt from New Jersey Department of Environmental Protection, Responsible Party Investigation

This report documents that Automatic Electroplating used a variety of hazardous substances containing nickel, zinc, silver, copper, chromium, arsenic and cyanide at its facility. This report also documents that discharges from the Automatic Electroplating facility flowed to drains on the property which were connected to the Roanoke Avenue storm sewer and discharges to these drains contained hazardous substances.

TAB C: Excerpt from PVSC Heavy Metal Source Determination Study

In 1976 the PVSC requested a study of the sources of heavy metals in the influent to the PVSC system. A sample of the effluent of Automatic Electroplating to the PVSC taken as part of this study documented cadmium, copper, lead and other heavy metals were discharged by Automatic Electroplating.

TAB D: Diagram of Discharge Flow from Foundry Street Complex

This diagram indicates that discharges from the Foundry Street complex flowed to the Roanoke Avenue combined sewer.

TAB E: Excerpt from Clinton Bogert Associates Report

Report states that as a result of the malfunctioning regulator at Avenue P, all flow into the Roanoke Avenue combined sewer entered the Passaic River.

TAB F: EPA Potentially Hazardous Waste Site Preliminary Assessment

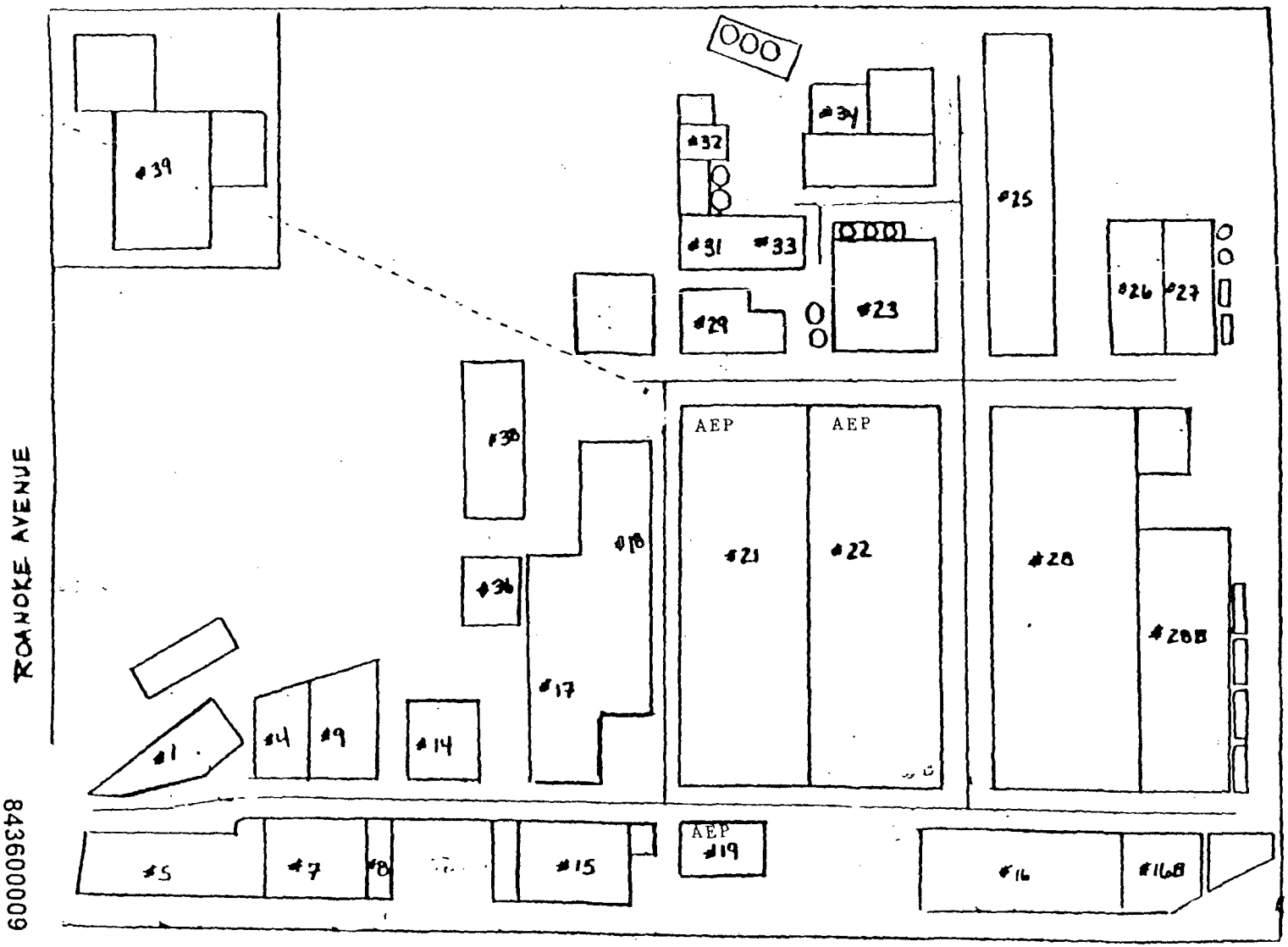
This report indicates that runoff from the Foundry Street complex discharges to storm drains and thence directly to the Passaic River. This report also notes that groundwater contamination from the Foundry Street complex may discharge to the Passaic River.

A

843600008

946020504

FOUNDRY STREET COMPLEX



843600009

946020505

B

843600010

946020506

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
LANCE R. MILLER, DIRECTOR
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

RECEIVED
APR 3 1991

MEMORANDUM

TO: Linda Grayson, Chief
Bureau of Planning and Assessment

FROM: Doug Stuart, Acting Chief
Bureau of Compliance and Technical Services

SUBJECT: Responsible Party Investigation
Foundry Street Complex
(AKA Arkansas Chemical, Hummel Chemical)
185 Foundry Street, Newark, NJ

The Bureau of Compliance and Technical Services' Special Investigation Section has prepared the attached Responsible Party Investigation Summary for the subject case to assist the Bureau of Planning and Assessment in its site evaluation.

Please be advised that referenced key documents are maintained in this bureau's files. Should you have any questions in this matter, do not hesitate to contact me at (609) 633-0708.

lmc
c Y. Yacoub, Chief, MBFO
P. Smith, Investigator, SIS/BCTS
B. Patterson, ECRA
RPIU File

New Jersey is an Equal Opportunity Employer
Recycled Paper

843600011

946020507

FOUNDRY STREET COMPLEX
AKA ARKANSAS CHEMICAL AND HUMMEL CHEMICAL

SUMMARY

The Foundry Street Complex consists of six separate parcels of land, Lots 4 (Block 5005); Lot 5 (Block 5005); Lot 6 (Block 5005); Lot 10 (Block 5005); Lot 21 (Block 5005); and Lot 22 (Block 5005), see Attachment 1. The site is located in the Iron Bound Section of Newark and is situated between Foundry Street on the east, the former Manufactures Railroad on the west, and Roanoke Avenue on the north. Bordering the southern portion of the site is the New Jersey Turnpike.

Approximately 30 small buildings are situated throughout the complex. The buildings are separated by narrow driveways which have strip-like drains in the middle of the lane. These drains are connected to an industrial sewer line on Roanoke Avenue and receive surface water run-off and industrial discharge from companies in the complex. The complex is easily accessible from numerous locations.

Historically, the Foundry Street Complex has been occupied by a variety of chemical manufacturing industries. One of the first known companies associated with the site was Central Dyestuff and Chemical Company (CDC), a New Jersey Corporation. CDC acquired the property in three different portions from Waldron Brothers Realty Company, Municipal Investment Company, and part of the premises known as Plum Point Lane duly vacated by the City of Newark. CDC manufactured color specialties which included oranges, fast reds, scarlets, browns, chrysoidine blacks, oil soluble colors, and a large variety of colors and dyes used for cakes, varnishes, inks, stains, straw, leather, etc.

On August 13, 1930, Central Dyestuff and Chemical Company merged with Consolidated Color and Chemical Company (CCC). The latter name was retained by the new corporation which continued to operate on site.

In January of 1936, Arkansas Company, Inc., a New York Corporation, executed a three year lease for space in buildings designated as #16, #24, #26, #27, #28, #32 and #35 with CCC. Consolidated Color and Chemical gave Arkansas the sole right and option to purchase the demised property. However, this option expired on October 31, 1938. After executing the lease with Arkansas, CCC changed their name to H.A. Metz & Company Inc., a New Jersey Corporation, on March 2, 1936. H.A. Metz & Company name was changed to Roanoke, Inc., a New Jersey Corporation, on May 24, 1937.

In January, 1939, Roanoke, Inc. sold the property which now consists of Lots 4, 5, 21 and 22 to Chemical Industries, Inc. for a sum of $10.00.

Prior to the sale of the premises, a ten year lease which became effective February 1, 1939, was negotiated between Arkansas Company, Inc., Chemical Industries, Inc. and Roanoke Inc. Arkansas Company's new lease still contained the right and option to purchase the premises which expired on November 1, 1943. Apparently, Arkansas and Chemical Industries, Inc. had negotiated the sale of the property before the November 1 deadline. The

sale was finalized on December 27, 1943. The Newark Tax Map now designates this property as Lot 5 (Block 5005).

ARKANSAS COMPANY, INC.

Arkansas Company, Inc. (Arkansas Chemical) manufactured textile chemicals at the facility which included chelating agents, dye carriers, emulsifying agents, fire retardants, fungicides, resin finishes and water repellents.

In 1975, Arkansas was issued a Notice of Violation (NOV) by the U.S. EPA, Region II, for failure to implement a Spill Prevention Control and Countermeasure Plan for a 20,000 gallon storage tank containing No. 6 fuel oil. It is not known if any penalties were assessed against Arkansas for the violation.

Arkansas Chemical sold the property (Lot 5) to Galaxy, Inc. on February 23, 1978, but continued to operate on the premises as a tenant. The City of Newark foreclosed upon the property, for unpaid taxes, in September of 1983. Both Arkansas and Galaxy, Inc. subsequently filed for bankruptcy, under Chapter 11, in the United States Bankruptcy Court for the District of New Jersey.

Sometime thereafter, Arkansas Chemical ceased operations at the facility. NJDEP personnel discovered approximately 250 abandoned 55 gallon drums on the property during a site inspection on April 30, 1984. Labels found on the drums indicated that they contained benzene chloride, perchloroethylene, methanol, silane, isophorondiisocyanate, lactic acid and polyethylene glycol. Some of the drums were noted leaking their contents. Oil spillage was discovered on the rear portion of the property where open containers of petroleum products were stored.

The Division of Waste Management (DWM) issued a Directive Letter to Arkansas on September 21, 1984. Arkansas was directed pursuant to the Spill Compensation and Control Act, to immediately initiate remedial measures at the site which included: Securing access onto the site; listing all materials stored on site within fourteen days upon receipt of the directive; and properly removing and disposing of all containers and contaminated soil in accordance with Department regulation.

Howard S. Greenberg, registered agent for Arkansas, informed the NJDEP by letter dated October 3, 1984, that remedial contractors were being sought. A supplemental letter dated October 23, 1984, provided the names of potential contractors which included: Atlantic Remedial Constructors, Inc., Clean Venture, Inc. and Rollins Field Service, Inc. The letter also stated that Elson T. Killian Associates had been hired to oversee cleanup activities. A cleanup proposal was submitted by Clean Venture, Inc. in November, 1984.

Approximately 500 additional drums were discovered in building No. 28 during a subsequent inspection. Many of the drums were labeled for corrosive, flammable and poisonous materials. An unspecified number of five gallon pails were also found in an outdoor shed.

facility on September 19 and November 10, 1989. The sample results indicated that ground water was contaminated with VOCs, B/Ns, PHCs and priority pollutant metals. The concentrations detected exceeded ECRA action levels. However, the contamination appeared to be coming from an off site source.

As a result of potential off site contamination, five additional monitoring wells were installed at Sun Chemical. Ground water samples were collected from the eight monitoring wells on August 23, 1990. These samples contained elevated levels of VOCs, B/Ns, PHCs and priority pollutant metals.

The DWR, Bureau of Ground Water Control recommended that additional background sampling be conducted to verify off site sources of contamination in March of 1990. Recon Systems Inc. in an attempt to verify such sources, investigated the integrity of the drainage system (strip drains) and sewer system. Video inspection of the sewer system revealed that the sewer lines contained numerous cracks and separations between the pipes. The inspection also noted that the strip drains were connected to the sewer system on Sun's property.

On July 17, 1990, four sediment samples and one water sample was collected from catch basins and the sewer system on the property. The samples contained elevated levels of VOCs, B/Ns, organic acids, cyanides, and priority pollutant metals. Recon Systems Inc. investigative findings concluded that contamination could have migrated onto the facility through the drainage system and leaks in the sewer system.

It was also indicated that reoccurring flooding of the drainage system may have distributed past sources of contamination throughout the facility, resulting in the scattered pattern noted on the premises. Furthermore, "ground water contamination appeared to be a regional problem not directly attributable to Sun Chemical".

FLEET AUTO ELECTRIC

The western portion of Lot 22 is occupied by Fleet Auto Electric and Automatic Electro-Plating Inc. (AEP). Fleet Auto Electric rebuilds electrical parts (i.e. generators, alternators for cars) in building #29 which is located immediately adjacent, and on the west side of Sun Chemical (See Attachment 2). The company has operated in the building since the early seventies.

AUTOMATIC ELECTRO-PLATING CORPORATION

Automatic Electro-Plating (AEP), EPA ID #NJD002445500 conducts an electroplating business in buildings #19, #21 and #22 (See Attachment 2). AEP has occupied these buildings since April, 1971. Tennant Chemical Company once operated in building #21 during the sixties.

The company performs nickel and zinc plating which incorporates two automated methods: RACK (metal parts suspended from racks), building #21, and BARREL (metal parts are placed in a polypropylene barrel) building #22. Both procedures are dipped in the various plating solutions and rinses. AEP

stores their dry chemicals in building #19. The yard south of building #19 is used to store acid carboys.

Several processes are done to prepare the metal parts for plating. The parts are first cleaned with an alkaline solution which is followed by a water rinse. Next, the parts are placed in a mild acid bath for surface activation and once again rinsed with water. From this process, the parts are submerged either in the zinc or nickel solution. The zinc solution consists of zinc chloride, potassium chloride and boric acid. The nickel solution consists of nickel sulfate, nickel chloride and boric acid. After the plating is completed, the parts are rinsed with water a final time and air dried.

Spent plating solutions are discharged from two outlets into the outside drains surrounding the production building. The drains flow to a sewer connection located near the northeast corner of building #21. Prior to discharge, the pH of the effluent is adjusted (neutralized) in house before it is released to the Passaic Valley Sewerage Commission (PVSC) which regulates the discharge under permit #2040-1122. Automatic Electro-Plating's permit is effective until July 14, 1991.

In January of 1986, AEP was determined to be in violation of Sections 307 and 308 of the Clean Water Act, 33 U.S.C. Subsection 1317, and Subsection 1318. A Civil Action Suit (86-0920) was filed by the United States Environmental Protection Agency, Region II. Gerald Borriello, President of AEP, signed a Consent Decree on April 15, 1987 for settlement of the pending actions. A $100,000 penalty was paid for the violation by Automatic Electro-Plating.

A prospective acquisition of AEP stock by Gerald F. Mahoney and Sennody Volkov in 1989, initiated the Environmental Cleanup Responsibility Act (ECRA) pursuant to N.J.A.C. 7:26-B-1.6 (stock purchase and redemption agreement of controlling share of assets of an industrial establishment). Subsequently, a General Information Submission and Site Evaluation Submission were filed with the Bureau of Environmental Evaluation Cleanup and Responsibility Assessment (BEECRA) on November 30, 1989 and January 10, 1990 respectively. Both submissions were determined to be incomplete by the Industrial Site Evaluation Element (ISE).

The Earth Technology Corporation, consultant to Automatic Electro-Plating, submitted a ECRA Negative Declaration on April 6, 1990, but it was found to be deficient. A revised declaration submitted on April 18, 1990 was waved due to enforcement actions on the adjacent property. No sampling was originally proposed for the facility. However, Mr. Borriello stated during a site inspection on November 7, 1990, that the Department (presumably ECRA) is requiring him to investigate contamination on site through sampling.

LOT 6 AND 10, BLOCK 5005

The south-southeast portion of the Foundry Street Complex consists of Lots 6 and 10 (Block 5005). Ashland Chemical Company acquired the property from Lasp Realty, Inc. in June, 1968. The two parcels are referred to as the "West Plant" and lie adjacent to Arkansas Chemical. It should be noted that the Ashland facility is divided in half by the New Jersey Turnpike. The

SUBSTANCES DISCHARGED/ABANDONED:

The following contaminants were detected in sediment samples, soil samples, and surface water samples collected throughout the Foundry Street Complex by the Bureau of Planning and Assessment on October 14, 1988.

VOCs: Acetone, Benzene, 2-Butanone, Carbon Disulfide, Chlorobenzene, Chloroform, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloroethene, Ethylbenzene, Methylene Chloride, 4-Methyl-2-Pentanone, Tetrachloroethene, Toluene, 1,1,1-Trichloroethene, Vinyl Chloride

BNAs: Anthracene, Benzoic Acid, Benzo(a)Anthracene, Benzo(b) Fluoranthene, Benzo(k)Fluoranthene, Benzo (g,h,i) Perylene, Benzo(a)Pyrene, bis (2-Ethylhexyl) Phthalate, Butylbenzylphthalate, 4-Chloroaniline, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, Dibenzo(a,h)Anthracene, Di-n-Butylphthalate, Di-n-Octylphthalate, 2,4-Dichlorophenol, Fluoranthene, Fluorene, Indeno (1,2,3,-c,d) Pyrene, 2-Methylnaphalene, Naphalene, 2-Nitroaniline, Phenanthrene, Phenol, Pyrene, 1,2,4-Trichlorobenzene, 2,4,6-Trichlorophenol

PESTICIDES:

Aldrin, Dieldrin, 4,4'DDT, Arcolor 1248

METALS: Antimony, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Vanadium, Zinc, Cyanide

DESCRIPTION OF SITE CONTAMINATION:

LOT 21 (BLOCK 5005)

Hummel Lanolin Corporation removed a 6,000 gallon underground storage tank, used to store fuel oil from the southwest corner of Lot 21 in 1985. The location of this former tank was a major environmental concern of Hummel Lanolin. As a result of this concern, Dames & Moore, consultants for Hummel Lanolin, installed six soil borings in the area of the former tank. Soil samples were collected at six inches above the saturation zone (approximately 5.0 - 5.5 feet in depth) and six inches below the base of the tank (approximately 10.0 - 10.5 feet in depth). It should be noted that ground water was encountered at a depth of five and one half feet.

All twelve samples were found to have petroleum hydrocarbons ranging in concentrations from 16 ppm to 1,720 ppm. Three samples analyzed for base neutral compounds revealed the presence of bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, and napthalene. Other base neutral compounds were detected but could not be definitively identified. The two samples containing the highest concentrations of petroleum hydrocarbons were further analyzed to determine their constituents (fuel oil or wool grease). High concentrations of wool grease were detected in the sample taken from beneath the tank. The other sample, which was taken above the saturation zone revealed higher levels of fuel oil.

Six additional soil borings were made in the area of the former tank in March, 1987. The soil samples collected from these borings contained VOCs (i.e. benzene, toluene, 2-butanone, trichloroethane, 1,2-dichloropropane, xylene) semi volatiles (i.e. napthalene, fluoranthene, pyrene, chrysene, benzo(a)pyrene, phenanthrene), PHCs, and metals (i.e. cadmium, chromium, copper, lead, zinc).

Dames & Moore installed four monitoring wells (MW) in the vicinity of the former tank in July, 1987 to determine if ground water had been contaminated. During the installment of MW-1, a sludge like material with a septic odor, was encountered. On August 13, 1987, a soil boring was made approximately one foot from MW-1. The sludge material was not detected in the soil sample taken from the boring, however, a septic odor persisted. Contaminants detected in the sample included VOCs, B/Ns, pesticides and metals (arsenic, cadmium, lead and zinc).

A ground water sample was extracted from MW-2 on August 17, 1987. No significant levels (less than 1 ppm) of petroleum hydrocarbons and oil/grease were detected in the sample. It should be noted that no analysis for priority pollutants was performed on the sample. The presence of VOCs, B/Ns, and metals in soil samples would suggest possible leaching of these contaminants into the underlying ground water.

To further delineate the source of the sludge material, a sediment sample was collected from the base of a manhole located 60 feet from the facility on the southern portion of the property. The sediment sample contained VOCs, PHCs, and metals. These are the same types of contaminants present in the soil sample taken from the boring next to MW-1.

A composite soil sample was obtained from beneath a floor drain in the process building located near the area where the sludge material was discovered outside. The sample was taken at a depth of 20.5 - 26.3 inches and 26.1 - 32.5 inches. The sample contained VOCs, B/Ns, and metals below ECRA action level. The floor drains were determined not to be a source of the sludge through the concentrations detected in the soil sample.

In October, 1988, Dames & Moore collected a sediment sample (WC-1) and water sample (WC-2) from the drainage basin situated on the north side of the process building. The sediment sample contained methylene chloride (11,000 ppb), toluene (6,100 ppb), five B/Ns below method detection limits, and metals (i.e. cadmium, copper at 1,096 ppm, lead at 1,044 ppm, selenium, zinc at 3,746 ppm). The water sample contained low levels of cadmium and lead. However, both samples had elevated levels of total petroleum hydrocarbons.

LOT 22 (BLOCK 5005)

A preliminary ECRA investigation was performed at the Sun Chemical facility by Recon Systems, Inc. on October 14, 1986. Three (3) samples consisting of one soil sample from an unpaved area adjacent to a solid waste dumpster, one sediment sample from a drain located in the drive way south and adjacent to Sun, and one swipe sample of a oily substance on a boiler room floor were taken during the sampling episode.

The soil and sediment samples exceeded the Bureau of Industrial Site Evaluation cleanup levels for base neutral compounds and petroleum hydrocarbons. Base neutral compounds detected included napthalene, 2-methylnapthalene, di-n-butyl phthalate, bis (2-ethylhexyl) phthalate and unknown brominated compounds. Metals (i.e. antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) were also present in both samples. PCBs were detected in the soil and swipe sample.

In August, 1989, three monitoring wells were installed at Sun Chemical to examine ground water quality. Two of the three wells (MW-1, MW-3) were placed on the west and north side of the facility respectively. While MW-2 was placed to the south of the facility. Ground water was determined to flow in a southeast direction and was reported to be influenced by tidal action.

Ground water samples were collected from the monitoring wells on September 19 and November 10, 1989. The samples from all three wells exceeded ECRA action levels for total B/Ns and VOCs. However, levels detected in MW-2 were lower than those levels detected in the other two monitoring wells (MW-1, MW-3). In addition MW-3 also exceeded action levels for PHCs, PCBs, and metals (i.e. arsenic, cadmium, lead, mercury, zinc).

Recon Systems, Inc. collected four (4) sediment samples and one water sample from Sun's sewer system on July 17, 1990. Sediment sample #1 was collected from the drainage system (strip drain) located in the driveway separating Sun and Arkansas Chemical where a second drain from Arkansas property connects into the first drain. The sample contained elevated levels for volatile organic compounds (VOC), base neutral compounds (B/N), organic acids, cyanide, phenol and priority pollutant metals (i.e. lead, mercury).

RESPONSIBLE PARTY:

Automatic Electro-Plating Corporation (Duns #00-244-5500)
185 Foundry Street
Newark, NJ 07105-4208
(201) 589-0344

Block 5005, Lot 22

Registered Agent:
J.J. Longley
426 Springfield Avenue
Summit, NJ 07901

Corporate Status:
Active; SIC 3471; Electro-Plating

Financial Status:
Sales $1,000,000 latest year 1989 (Dun & Bradstreet)

Principals:
President - Borriello, Gerald
260 Knoll Drive
Block: 2505 Lot: 7 (Park Ridge Borough, Bergen County)

Assessment:

$136,900	Land
$221,400	Improvements
$358,300	Total Assessment

CONCLUSIONS AND RECOMMENDATIONS:

Historically operations at the Foundry Street Complex have contributed to contamination through the handling of hazardous substances and contributory operations. Ellis R. Meeker's book entitled "New Jersey, A Historical, Commercial and Industrial Review", Commonwealth Publishing Company, 1906, indicates that Central Dyestuff and Chemical Company manufactured tar colors at their extensive plant at Plum Point Lane. This is substantiated by information obtained through a title and deed search. Part of the property making up the Foundry Street Complex was formerly known as Plum Point Lane.

According to the Encyclopedia of Chemical Technology products recovered from the fractional distillation of coal tar have been the traditional raw materials for the dye industry. Among the most important are benzene, toluene, xylene, naphthalene, anthracene, acenaphthene, pyrene, pyridine, carbozal, phenol and cresol. The reference further states that dye companies expanded their activities into the pharmaceutical field. Pharmaceuticals such as sulfa drugs were derived from compounds already in use as dye intermediates.

H.A. Metz & Company, Inc., successors to Consolidated Color and Chemical Company by virtue of name change, was identified to have once manufactured drugs at the Foundry Street Complex. This information was obtained from the Industrial Directory of New Jersey (1931) and Sanborn Fire Insurance Maps.

Hummel Lanolin Corporation and Sun Chemical Company have investigated their facilities located within the Foundry Street Complex for potential sources of contamination pursuant to the Environmental Cleanup Responsibility Act (ECRA). Extensive files are maintained relative to these activities with ECRA.

NOTE: ECRA File Numbers are Provided on Page 50

Ground water samples taken from eight monitoring wells installed throughout the Sun Chemical facility contained elevated levels of volatile organic compounds (VOCs), base neutral compounds (B/Ns), petroleum hydrocarbons (PHCs) and priority pollutant metals. Recon Systems Inc. determined that the flow of ground water in the vicinity of the facility is from the south in a radial direction. Arkansas Chemical and Ashland Chemical Company's Industrial Chemical and Solvents Division are situated upgradient of Sun Chemical.

Widespread contamination has been documented throughout the "West Plant" of Ashland's Industrial Chemical and Solvent Division. The west plant lies approximately 300 feet south of Sun Chemical. Contamination on this property has resulted from numerous spills, leaks, and poor house keeping practices associated with the 200 Series tank farm, drumming warehouse, and truck and rail car loading/unloading manifolds. The 200 Series tank farm was used to store products such as mineral spirits, napthalene, plasticizer, fuel oil, toluene and xylene. In addition, halogenated VOCs (i.e. 1,1-dichloroethane, 1,1,-trichloroethane, tetrachloroethane), aromatic VOCs (i.e. benzene, toluene, xylene) and petroleum distillates have been detected in ground water and soil samples collected from the West Plant. The highest

concentrations have been detected in the area of the former 200 Series tank farm. It should be noted that most of the West Plant is not paved.

Arkansas Chemical Company occupied the adjoining property to the south of Sun for approximately 47 years. It should be noted that Arkansas vacated the premises in 1984. The two companies are separated by a narrow driveway. Numerous storage tanks were maintained in the rear south-southwest corner of the property (Lot 5), adjacent to building #28. Arkansas used these tanks to store fuel oil, sulfuric acid, caustic soda, mineral oil, naptha and other products. In 1981, a NJDEP, Division of Hazard Management representative noted weep holes in a caustic tank. Spillage stained the ground below the tank and other tanks in the area.

In October, 1988, two soil samples were taken from the southwest corner of the facility behind the former tank house. Both samples were obtained from the same boring. The shallow sample (S-2) contained high concentrations of VOCs (i.e. xylene, toluene, tetrachloroethylene, chlorobenzene, ethylbenzene) and semi volatiles (i.e. napthalene, 2-methylnapthalene). Only tetrachloroethylene was present in the deep sample (S-3). This suggests that the contamination is the result of surface spillage which has not deeply penetrated into the ground. Spillage from petroleum products was observed on the ground in the rear (west side) of the property during an inspection in 1984. In addition naptha was stored in a tank near the sample location. Napthalene and 2-methylnapthalene were detected in the shallow soil sample. Spillage or leakage from the tank could have migrated from the tank to this area.

It should be noted that the drainage system throughout the Foundry Street Complex is a major source of contamination. Sediment and surface water samples collected from the drainage system in October, 1988, contained high concentrations of VOCs, B/Ns, PHCs, PCBs and priority pollutant metals. The drainage system essentially consists of troughs embedded in the driveways which are connected to sewerlines. A site inspection conducted at the Foundry Street Complex on November 7, 1990, revealed that many sections of the drains had collapsed or were broken. Water observed in the drains had a petroleum sheen on its surface and a heavy residue existed on the bottom. It was also reported that the drains would frequently flood during periods of rain. Any contamination in the drains could be redistributed over other areas covered by the flood waters.

The drainage system connects to sewerlines located on the south side and to the northwest of Sun Chemical. The sewerline on the south side, transverses underneath the Sun facility. Both sewerlines are connected to an industrial sewerline on Norpak's property to the north. The industrial sewerline is connected to a city sewer on Roanoke Avenue. Four sediment samples were collected from the drainage system and sewerlines surrounding Sun Chemical on July 17, 1990. These samples contained elevated levels of VOCs, B/Ns, organic acids, unknown semi volatiles, and priority pollutant metals.

Recon Systems, Inc. video inspection of the sewerlines on the premises of Sun Chemical revealed numerous cracks and separations between the pipes. Any contamination entering the sewerline could escape through these openings into the surrounding soil.

Drains from Arkansas Chemical were discovered to flow directly from Building #26, #27 and #28 (See Attachment 4). The drains are connected to the drainage system in the driveway on the north side of the facility. Herman G. Wieland, Chief Chemist of Arkansas, stated in a Sewer Connection Application dated October 27, 1980 that the plant's effluent is neutralized in an outside tank and discharged into "city storm sewers via covered ditches". Waste water samples taken from Arkansas Chemical in October, 1981 contained trace concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc. Mercury was detected in effluent samples taken in June and July, 1981. These contaminants have been detected in sediment samples taken from the drains throughout the Foundry Street Complex.

Division of Hazard Management personnel noted in 1981, that spillage from the process building (#28) could flow unobstructed into strip drains outside. It was also indicated that drains located in the shipping building (#27) flowed directly off the premises. In December, 1986, NJDEP personnel observed powder and resin on the floors of the process building. In addition, numerous fiber drums and lines on reactor/process vessels were leaking their contents. The roof was also noted to be leaking which could wash spillage into floor drains that flowed into the drainage system. Many of the products removed from Arkansas Chemical by the EPA were base neutral compounds, acids, cyanides, peroxides, flammables, halogenated organics, oxidizers and organics.

Automatic Electro-Plating Corporation (AEP) has operated an electroplating business on the western portion of Lot 22, adjacent to Sun Chemical, since 1972. The drainage system borders the facility on its north, west and south side, and receives point source discharge and surface water run-off from AEP. A sewerline on the east side is connected to a sanitary source at the facility. Elevated levels of VOCs and priority pollutant metals were detected in a sediment sample (Sediment #2) taken from a catch basin where the two sewerlines connect in July, 1990.

A flow diagram submitted by AEP to the Passaic Valley Sewerage Commission in January, 1989 shows process lines from buildings #21 and #22 discharge into the drain on the north side. High concentrations of arsenic, cadmium, chromium, copper, lead, mercury, silver and zinc were detected in a surface water sample (SW-4) taken from this drain on October 14, 1988.

This drain and the noted sewerline connect to one another at a catch basin situated near the corner of building #21. Elevated levels of VOCs, B/Ns, PCBs, organic acids, unknown semi volatile compounds and priority pollutant metals (i.e. cadmium, chromium, copper, lead, nickel, zinc) were detected in a sediment sample (Sediment #3) collected from this catch basin in July, 1990.

In January, 1989 Gerald Borriello, President of AEP, informed the Passaic Valley Sewerage Commission that his company does not discharge any cadmium, lead, silver or cyanide into the sewage system. Automatic Electro-Plating's ECRA General Information Submission (GIS) states that only nickel and zinc plating are conducted on site. These metals have been detected in sediment samples collected from the drainage system.

According to the Division of Environmental Quality (DEQ) Right to Know Survey dated November 10, 1988, Automatic Electro-Plating Corporation used materials containing chromium, copper, nickel, silver, zinc and cyanide. The GIS indicated that dry chemicals are stored in building #19. Samples SW-3 and SED-4 were obtained from the drain located on the west side of buildings #21 and #22, and adjacent to the chemical storage area on October 14, 1988. High concentrations of metals detected in these two samples suggest that run-off may be transporting spilled materials from the storage area into the drain.

Records obtained from the PVSC revealed that AEP once conducted chrome electro-plating (see file copy of AEP General Information Sewer Connection Application, 1980). An effluent sample taken on December 12, 1979, during "usual electro-plating" operations contained arsenic, cadmium, chromium, copper, lead, nickel and zinc.

In 1982, AEP informed the DWR that they are experimenting with nontoxic products such as cyanide free plating solutions, and chromium free passivities to reduce the discharge of chromium. Subsequently, AEP consistently failed to meet electro-plating discharge standards which initiated enforcement actions by the USEPA in 1986.

Another potential source of contamination may have originated from the Polychrome Corporation, Cellomer Division. Sun Chemical stated in their General Information Submission that Cellomer occupied the premises before 1967. Cellomer's address is listed as 185 Foundry Street in New Jersey Industrial Directories from 1964 through 1966. There is no information concerning the company's activities at the Foundry Street Complex.

In subsequent directories, the address was listed as 46 Albert Street, Newark. Cellomer manufactures alkyd resins at this location. Some products used include vegetable oils, polyols, phthalic anhydride, aliphatic and aromatic solvents. The company submitted to the PVSC a base line monitoring report (BMR) for process water samples taken during normal operations in June, 1988. The samples contained detectable levels of benzene, benzoic acid, methylene chloride, toluene, xylene, bis (2-ethylhexyl) phthalate, and di-n-butyl phthalate. These substances have been detected in soil and sediment samples taken from Sun Chemical.

In 1989, O'Brien & Gere Engineering, Inc. was retained to address compliance with waste water discharge regulations. A compliance monitoring report indicated that Cellomers regulated waste stream exceeded maximum concentration limits for toluene, ethylbenzene, and phenol. In addition, toluene and bis (2 ethylhexyl) phthalate were detected in the plant's effluent. O'Brien & Gere concluded that the company was not consistently complying with standards for phenol, bis (2 ethylhexyl) phthalate, ethyl benzene and toluene. These substances have been detected in ground water, surface water and sediment samples collected from the drains around Sun Chemical and Automatic Electro-Plating. Neither Sun Chemical or Automatic Electro-Plating are known to utilize these substances, therefore Polychrome's operation at Foundry Street are a likely source of this contamination. Polychrome's Cellomer Division name was changed to Reichhold Chemical Inc. in 1989.

Avon Drum Corporation has operated a drum brokerage on the northern portion of Lot 4, adjacent to Roanoke Avenue and west of the former Hummel Lanolin facility for approximately 20 years. Historical aerial photographs (EPI-IRC-6571, 6572, 6573) taken on September 6, 1978, revealed extensive drum storage along Roanoke Avenue where Avon Drum operates. The area appeared to be heavily stained.

High concentrations of VOCs (i.e. xylene, tetrachloroethene, toluene, ethylbenzene), semi volatiles (i.e. phenanthrene, di-n-butyl phthalate, fluoranthene, pyrene, benzo(a)anthracene), PCBs, and priority pollutant metals were detected in soil samples (S-12, S-13, S-14) collected from the facility on October 14, 1988. Two soil samples (S-10, S-11) taken at the perimeter of the facility contained significantly fewer contaminants at lower concentrations. This implies that contamination is directly associated with site operations (i.e. drum storage). Representatives from the Bureau of Compliance and Technical Services observed spillage throughout the facility on November 7, 1990. During this inspection, a solvent odor was encountered. Two operators at the Foundry Street Complex also stated that the company washes drums out on the premises. Consequently any remaining residues in the drums would be allowed to discharge onto the ground. There is no protective barrier (i.e. concrete, asphalt) at the facility.

Berg Chemical Co. and Conus Chemical conducted a chemical repackaging and distribution operation in buildings #5, #5A and #7 located on the west side of Lot 4 adjacent to the railroad tracks. Products handled at the facility included acids, alcohols, solvents, petroleum products, corrosives, reactives and flammables. A large inventory of these products were stored inside and outside of the buildings. The outside storage area lacked adequate spill prevention structures to prevent spillage from seeping into the ground. High levels of chloroform, 1,2-dichloroethene, trichloroethylene, tetrachloroethylene, 2-methylnapthalene, benzoic acid, phenthane, di-n-butyl phthalate, pyrene and butyl benzyl phthalate were detected in a soil sample (S-9) collected near the drum storage area on October 14, 1988.

An EPA inventory taken from drums located in the outside storage area included trichloroethylene, chloroethylene, naptha distillate, benzyl chloride, toluene and petroleum ether. Some of these substances were detected in the soil sample. In February, 1990 NJDEP, DHWM personnel reported that various spills of hazardous substances existed outside of the facility. It was also noted that soils were stained along the western portion (exterior) of Conus.

NJDEP representatives observed spillage throughout the inside of building #5 during a presampling site inspection in October, 1988. Conus stored a variety of hazardous substances in 55 gallon drums, fiber drums, fiber bags, small containers and above ground storage tanks. Spillage was also observed inside on subsequent inspections. Floor drains in building #5 were determined to curve towards the east side of the facility. This suggests that the drains may be connected to the drainage system location in the driveway outside. Any spillage resulting from repackaging could flow or be washed into the floor drains.

High concentrations of VOC (i.e. methylene chloride, 1,1-dichloroethene, 1,2 dichloroethene, 1,2 dichloroethane, 2-butanone, 1,1,1-trichloroethene, xylene, trichloroethylene, benzene, tetrachloroethylene, toluene, chlorobenzene), semi volatile (i.e. 1,2-dichlorobenzene, napthalene, 2-methylnapthalene, phenanthrene, fluorene, flouranthene, pyrene, butylbenzyl phthalate, bis (2-ethylhexyl) phthalate) pesticides, PCBs and priority pollutant metals were detected in a sediment sample collected from the drain situated between Conus (Building #5) and RFE Industries (Building #1) on October 14, 1988.

An inventory of hazardous materials found in building #5 included: Petroleum product residue, naptha sillate, kerosene, mineral spirits, n-butyl lactate, dry cleaning solution to name a few. Other potential sources of contamination detected on the west-northwest side of Lot 4 may have originated from operations conducted by Coronet Chemical Co., Grignard Chemical Co. Inc., Honig Chemical and Processing Co., Hummel Chemical, RFE Industries, Morrel Truck Services, and County Lift Truck Service.

Grignard Chemical Co. manufactured lubricating oils, cutting oils, cleaners and preservatives in building #7. This consisted of blending materials such as petroleum oil, alkaline additives, chlorinated hydrocarbons and diester compounds with non-hazardous components. Grignard's "Site Evaluation Submission" dated August 21, 1990 included a Hazardous Substance/Waste Inventory List (Appendix D). The list notes that Grignard used dichlorobenzene, dichloromethane, 1,1,1-trichloroethane and petroleum distillates. High concentrations of dichlorobenzene, 1,1,1-trichloroethane, and B/Ns were detected in sediment sample (SED-5) collected from the drain outside building #5 on October 14, 1988. Petroleum distillates with high molecular weights will be present in the base neutral fraction. Such compounds might be related to B/Ns contamination detected in the ditch.

The company has not manifested any hazardous waste from their facility between 1980 and 1989. Grignard reportedly received a shipment of PCB contaminated transformer oil from G&S Motor Equipment Company in 1981. According to Grignard's response to a "Request for Information" dated January 8, 1991, indicates they are no way related to G&S Motor Equipment Company. High concentrations of PCBs (Arcolor-1248) was detected in the previously noted sediment sample.

Another potential source of contamination is Coronet Chemical Company. The company reclaimed napthalene from spent teflon etching solutions in building #9 during the early eighties. Waste generated from the reclamation process was disposed in a dumpster. Leaking drums of napthalene were observed during RCRA inspections at the facility. The location of the dumpster and leaking drums are not known. However, discharges from either source could seep into the ground or migrate into the drain on the west side of Coronet Chemical.

Coronet Chemical was also developing a sodium dispersion to destroy PCBs. However, it is not known if the company inventory of hazardous substance included PCBs. It should be noted that high concentrations of napthalene and PCBs were detected in sediment sample (SED-5) collected on October 14, 1988. Coronet Chemical was evicted from the facility in 1986. Numerous drums containing metallic sodium were abandoned in building #4. This

building was used for storage. Inspection of the building in July, 1987 revealed that one of the drums had reacted.

Grignard identified Honig Chemical and Processing Co. as having operated in building #7 and #8 during the early seventies (1970-1975). This information was stated in Grignard's ECRA Site Evaluation Submission. In October, 1988 Gerald Berriello of Automatic Electro-Plating stated that Honig operated in a building next to Conus Chemical which exploded. It should be noted that building #13 was destroyed by an explosion in 1962. This is stated in a Newark, Division of Inspections Violation Report.

Honig manufactures organic chemicals at a facility located at 414 Wilson Avenue, Newark, NJ. According to the Division of Environmental Quality, Right to Know Survey, Honig Chemical uses the following hazardous substances: Arsenic trioxide, barium nitrate, benzene, chloroform, dichloromethane, lead nitrate, mercury chloride, mercury acetate, mercury metal, petroleum spirits, pyridine, silver nitrate and toluene. High concentrations of arsenic, barium, lead, mercury and silver were present in a soil sample (S-6). The sample was taken on the west side of building #15 where it was once attached to building #13. High concentrations of acetone, barium, benzene, chloroform, toluene and pyrene were detected in sediment sample (SED-5) collected from the drain between building #1 and building #5.

Hummel Chemical is also believed to have operated on the west side of the Foundry Street Complex according to Howie Levy of Fleet Auto Electric. This information was obtained during a presampling site inspection in October, 1988.

Hummel Chemical Co. Inc. address is listed as 185 Foundry Street in New Jersey Industrial Directories from 1966-1970. A "Request for Information" was issued to Hummel Croton Inc. (HCI), successors of Hummel Chemical, on December 7, 1990. HCI's response dated December 28, 1990 verified that Hummel Chemical operated at the Foundry Street Complex until April of 1968.

The company supplied chemicals to the pyrotechnic industry. Most of the items handled were purchased from other companies in truckloads, rail car, and less than truckload quantities. It should be noted that only the west side of the Foundry Street Complex is serviced by a rail siding. HCI claims that most of the chemicals were shipped out in their original container without being opened. Hummel Chemical also grinded nitrates on the premises. Such operations at the HCI facility in South Plainfield has contributed to soil contamination. Airborne particulate generated by the grinding process would accumulate around ventilators on the roof. Subsequently particulate would wash off the roof from rain and onto the surrounding grounds.

Soil samples (S-7, S-8) taken on the west side of building #5 and #7 contained high concentrations of antimony, cadmium, chromium, copper, lead, mercury, nickel and zinc. HCI indicated that Hummel Chemical handled antimony sulfide and zinconium powder. They may have also handled copper oxide, copper oxychloride, lead chromate, lead dioxide, lead oxide, zinc dust, zinc oxide at the site in Newark. These products are used at the South Plainfield facility.

Hummel Chemical was also a producer of Class III organic chemicals at the Foundry Street Complex according to a USEPA publication entitled "Dioxins" (EPA 600/2-80/197) November, 1980. These organic chemicals are precursor of dioxins. Compounds identified included 2,4-dinitrophenoxyethanol, 3,5-dinitrosalicyclic acid, hexachlorobenzene and picric acid. On October 14, 1988, four soil samples were collected from the Foundry Street Complex and analyzed for the 2, 3, 7, 8 TCDD dioxin isomer. However, none of these samples were taken from areas where Hummel Chemical is believed to have operated.

The ground in a small yard, approximately 50 x 20 feet, situated between Morrel Truck Service (Building #9) and County Lift Truck Service (Building #14) was saturated with oil during a site inspection by the Bureau of Compliance and Technical Services (BCTS) Special Investigation Section personnel on November 7, 1990. In addition, there was evidence of a recent spill where speedy dry had been applied. Spillage was also observed around the drain in the driveway which separates the two facilities from Conus Chemical. The yard contained an assortment of oily/greasy truck parts (i.e. engines, rears, transmissions). These parts were laying directly on the ground without any type of barrier. It should be noted that Morrel repairs trucks and County Lift operates a forklift rental business. Spillage in the yard can penetrate underlying soils or be washed into the drain when it rains.

RFE Industries occupies building #1 which abuts Roanoke Avenue on its north side. On November 7, 1990 approximately ten 55 gallon drums were observed by BCTS personnel in the driveway outside of building #1. Upon closer inspection of the drums, it was discovered that some of the drums had been turned over to allow any remaining contents to drain out. The contents of these drums flowed into a large pool of water in the driveway. The drums were marked "Proprietary Solvent Mix #100" contained denatured ethyl alcohol. Such practice by RFE Industries has contributed to on-site contamination. Other types of materials handled are unknown.

C.W.C. Industries, Inc. stored raw materials (i.e. isopropanol, methyl ethyl ketone, toluene, V.M.P. naptha, methanol) and process residues in a small fenced yard located adjacent to the south side of building #17 and the west side of building #18. On November 7, 1990 staining was observed on the concrete throughout the yard and on the east side of building #18. The concrete in the yard contained many fractures. Any spilled or leaking substance could penetrate the underlying soil through the fractures or migrate into a drain located outside the fence. No diking exits around the storage yard.

High levels of VOCs (i.e. 1,1-dichloroethane, 1,2-dichloroethane, trichloroethylene, benzene, 4-methyl-2-pentanone, toluene, chlorobenzene) were present in a surface water sample collected from the south side of building #17 on October 14, 1988. An active flow was noted in the drain during the sampling. C.W.C. uses toluene. The company applies solvent based surface coatings to polyesters. It is not known if any floor drains are connected to the drainage system or if process effluents is discharged into the drain.

Contamination (i.e. VOCs, B/Ns, priority pollutant metals) detected on the property of Hummel Lanolin Corporation (HLC) may have originated from two sources. An industrial sewer line runs underneath the property before connecting to a city sewerline on Roanoke Avenue. The industrial sewer receives discharge and run-off from the Foundry Street Complex. In July, 1987, a black sludge-like material with a septic odor was encountered during the installation of monitoring wells near the sewerline. The sludge material contained VOCs, PHCs, and metals. A sediment sample collected from a manhole on the sewerline, located upgradient of the facility, contained VOCs, PHCs, and metals. Similar contaminants (i.e. VOCs, PHCs, metals) were present in a sludge sample taken from a basin on the north side of HLC process building. The sludge had back flowed into the basin from the industrial sewerline. It should be noted that the basin is located downgradient of where contamination was detected. Priority pollutant metals (i.e. cadmium, chromium, copper, lead, nickel, zinc) detected in the sludge are used by Automatic Electro-Plating located upgradient of HLC.

Dames & Moore, consultants for HLC, determined that ground water in the vicinity of the former underground storage tank flowed in a east-southeast direction in July, 1987. Soil borings made in the vicinity of the tank contained elevated levels of B/Ns (i.e. napthalene, fluoranthene, chrysene, pyrene, benzo(a)pyrene, phenanthrene). High concentrations of base neutral compounds were detected in five soil samples collected from Avon Drum on October 14, 1988. Avon Drum is located adjacent and hydraulically upgradient of Hummel Lanolin Corporation. HLC did not use any VOCs, B/Ns, or priority pollutant metals in their operations.

Kem Realty purchased Lot 4 in May, 1962. Anthony A. Coraci, Vincent J. Coraci and Mary Coraci were the incorporators of Kem according to the Certificate of Incorporation. A deed between Kem Realty and Hummel Lanolin dated February 28, 1964, identified Vincent Coraci as the President of Kem.

In April, 1976, Kem Realty merged with several companies including Norpak Corporation to form Torco Investment Corporation. Torco's name was subsequently changed to Norpak Corporation by a Certificate of Amendment to a Certificate of Incorporation. Norpak's and Torco Investment Corporation's address are both listed as 70 Blanchard Street, Newark.

By Certificate of Merger dated December 31, 1980, Norpak merged with Norpak Specialties Corporation, Leeds Enterprises, and Abar International Corporation forming ACC Transitional Investing Corporation. Anthony A. Coraci is listed as the registered agent for Norpak Specialties, Leeds, and Abar. A Certificate of Incorporation for ACC Transitional Investing Corporation identifies Anthony A. Coraci, Vincent J. Coraci and Mary Coraci as the first Board of Directors.

ACC conveyed Lot 4 to Norpak on November 11, 1981. A.A. Coraci is currently the President of Norpak Corporation, 70 Blanchard Street, Newark, New Jersey. Therefore, Norpak Corporation, Anthony A. Coraci, Vincent J. Coraci and Mary Coraci have owned Lot 4 since 1962 and subsequently leased out space in buildings on the premises. Numerous discharges have occurred on the property as a result of tenants on site. Norpak and its officers have not made any attempts to remediate contamination on site.

The City of Newark, Division of Inspections issued a Certificate of Occupancy to Essex Chemical for 185 Foundry Street on November 7, 1971. Peter Chan of C.W.C. Industries stated that Essex Chemical once operated in building #17 during a presampling inspection on October 7, 1988. Essex Chemical manufactures inorganic chemicals at a facility on Doremus Avenue. The Division of Environmental Quality, Right to Know Survey indicated that Essex Industrial Chemical uses: Acetone, chloroform, chromium oxide, chromium and compounds, lead nitrate, lead and compounds, and silver nitrate. These substances have been detected in a sediment sample (SED-5) collected from the drain outside of building #5.

ABC Demolition Company was evicted from building #15 by Norpak in October, 1989. The company renovated old buildings and disposed debris from their projects on the property. On November 2, 1989, approximately 13 x 55 gallon drums were observed around the exterior of building #15. Subsequent inspection of the interior of the building discovered additional drums. The Bureau of Compliance and Technical Services, Special Investigation Section determined through their investigation that Norpak, the property owner, was the only viable responsible party (Norpak/ABC Demolition file).

Ace Chemical Corporation was identified as having operated at the Foundry Street Complex according to a Newark, Department of Health and Welfare, Division of Inspections list of "Hazardous Waste Addresses" dated March 12, 1979. Apparently, no certificate of occupancy was issued for this operation by the City of Newark. No other information is known about the company's operations at the Foundry Street Complex.

Tennant Chemical Corporation and Weston Chemical Corporation were also identified as site operators through "Application for Building Permits" issued by the City of Newark. Both companies manufactured chemicals. No other information is known about their operations. Arkansas Company, Inc., Central Dyestuff and Chemical Company, Chemical Industries, Inc., Consolidated Color and Chemical Company, Coronet Chemical Company, Galaxy Inc., H.A. Metz Company, Inc., Ohmlac Paint and Refinishing Company, Tenant Chemical Corporation, and Weston Chemical Corporation have been determined to be dissolved.

Ashland Chemical Company, Automatic Electro-Plating Corporation, Avon Drum Corporation, Berg Chemical Company, Inc., C.W.C. Industries, Inc., Conus Chemical Company, Inc., County Lift Truck Service, Morrel Truck Service, and RFE Industries have been identified as primary responsible parties. The City of Newark, Foundry Street Corporation, Norpak Corporation, and Torco Investment Corporation have also been identified as primary responsible parties for being the owners of the contaminated property located on Lots 4, 5, and 22 (Block 5005).

Essex Chemical Company, Fleet Auto Electric, Grignard Chemical Company, Inc., Honig Chemical and Processing Corporation, Hummel Croton Inc., and Reichhold Chemical Company are potential responsible parties. These companies once operated at the Foundry Street Complex and used substances similar to those detected on site. However only limited or no information exists concerning their activities at the subject site.

Ashland Chemical Company (Case #88695), Hummell Lanolin Corporation (Case #86732) and Sun Chemical Company (Case #86960) have initiated actions to investigate and remediate contamination detected at their facilities pursuant to the Environmental Cleanup Responsibility Act (ECRA). Other ECRA investigations at the Foundry Street Complex include: Automatic Electro-Plating Corporation (Case #85708), Berg Chemical Company, Inc. (Case #90289), C.W.C. Industries, Inc. (Case #90598), Conus Chemical Company, Inc. (Case #90217), Grignard Chemical Company, Inc. (Case #90624).

It is recommended that information provided in this report should be used as a tool to assist in the evaluation of ongoing ECRA investigations (i.e. Berg Chemical, CWC Industries, Inc., Conus Chemical, Grignard Co., Inc.). This may be valuable in determining sampling locations and sampling plans at the noted facilities.

Site investigations conducted by Sun Chemical and Hummel Lanolin Corporation have indicated that ground water is contaminated at the Foundry Street Complex. Therefore all responsible parties and potential responsible parties identified in this investigation should be held jointly and severely liable for contamination of ground water pursuant to the Spill Compensation and Control Act. Their handling of hazardous substances and contributory operations (i.e. storage, processing) have contributed to contamination as noted in this report. It is recommended that an Administrative Consent Order be drafted and issued to the identified responsible parties to address the ground water contamination.

Recovery of administrative costs charged to this case (Project Activity Code JNK and JNM) should be an objective of Department actions. Contact this bureau regarding information or questions on the subject case file.

INVESTIGATOR:

Paul Smith
Environmental Specialist
NJDEP-Division of Hazardous Waste Management
Bureau of Compliance and Technical Services
Special Investigations Section
401 East State Street
Trenton, NJ 08625
(609) 633-0700

C

843600031

946020527

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA O

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
980	ATLAS REFINERY INC. 142 LOCKWOOD ST. NEWARK	0.0220	0.014 (0.077)	0.338 (1.840)	0.066 (0.358)	0.782 (4.260)	0.136 (0.742)	0.027 (0.149)	0.001 (0.007)	0.0003 (0.001)
995	AUTOMATIC PLATING INC. 185 FOUNDRY ST. NEWARK	0.0420	0.022 (0.064)	6.690 (19.100)	0.184 (0.525)	0.033 (0.095)	0.178 (0.508)	12.190 (34.800)	< 0.000 (0.001)	0.0009 (0.002)
1000	AUTOMATIC PLATING METHODS INC. 347 FERRY ST. NEWARK	0.0820	3.529 (5.160)	4.384 (6.410)	3.358 (4.910)	0.193 (0.282)	1.306 (1.910)	29.680 (43.400)	0.002 (0.003)	0.0003 (0.000)
1010	BARBER PHOTOGRAPHIC CO. 378 SIXTH AVE. NEWARK	0.0040	< 0.000 (0.005)	0.001 (0.020)	0.022 (0.649)	0.005 (0.150)	0.003 (0.094)	0.024 (0.720)	0.000 (0.003)	0.0316 (0.948)
1020	BAYONNE BARREL & DRUM CO. 154 RAYMOND BLVD. NEWARK	0.0440	0.448 (1.220)	1.167 (3.180)	0.650 (1.770)	6.715 (18.300)	0.067 (0.183)	3.281 (8.940)	0.021 (0.056)	0.1101 (0.300)
1030	BENJAMIN MOORE & CO. 134 LISTER AVE. NEWARK	0.0320	0.016 (0.060)	0.755 (2.830)	1.022 (3.830)	0.899 (3.370)	0.270 (1.010)	2.989 (11.200)	0.009 (0.033)	0.0000 (0.000)
1032	BENNET HEAT TREATING CO. INC. 490 FERRY ST. NEWARK	0.0140	< 0.001 (0.005)	< 0.001 (0.005)	0.013 (0.098)	< 0.001 (0.005)	< 0.001 (0.005)	0.002 (0.013)	< 0.000 (0.001)	< 0.0000 (0.000)
1035	BESSEMER PROCESSING CO. INC. 135 HAYNES AVE. NEWARK	0.0450	0.021 (0.057)	0.123 (0.327)	0.087 (0.232)	0.310 (0.826)	0.030 (0.080)	0.150 (0.401)	0.016 (0.042)	0.0020 (0.005)
1045	BLACK OXIDE PROCESSING CORP. 85 GOTHARD ST. NEWARK	0.0110	< 0.000 (0.005)	1.477 (16.105)	0.015 (0.168)	< 0.000 (0.005)	< 0.000 (0.005)	0.174 (1.895)	< 0.000 (0.001)	< 0.0000 (0.000)
1050	BLUE LINE INC. 209 PARKHURST ST. NEWARK	0.0160	0.001 (0.008)	1.575 (11.800)	4.777 (35.800)	0.031 (0.233)	3.496 (26.200)	0.063 (0.470)	0.001 (0.011)	0.0004 (0.003)

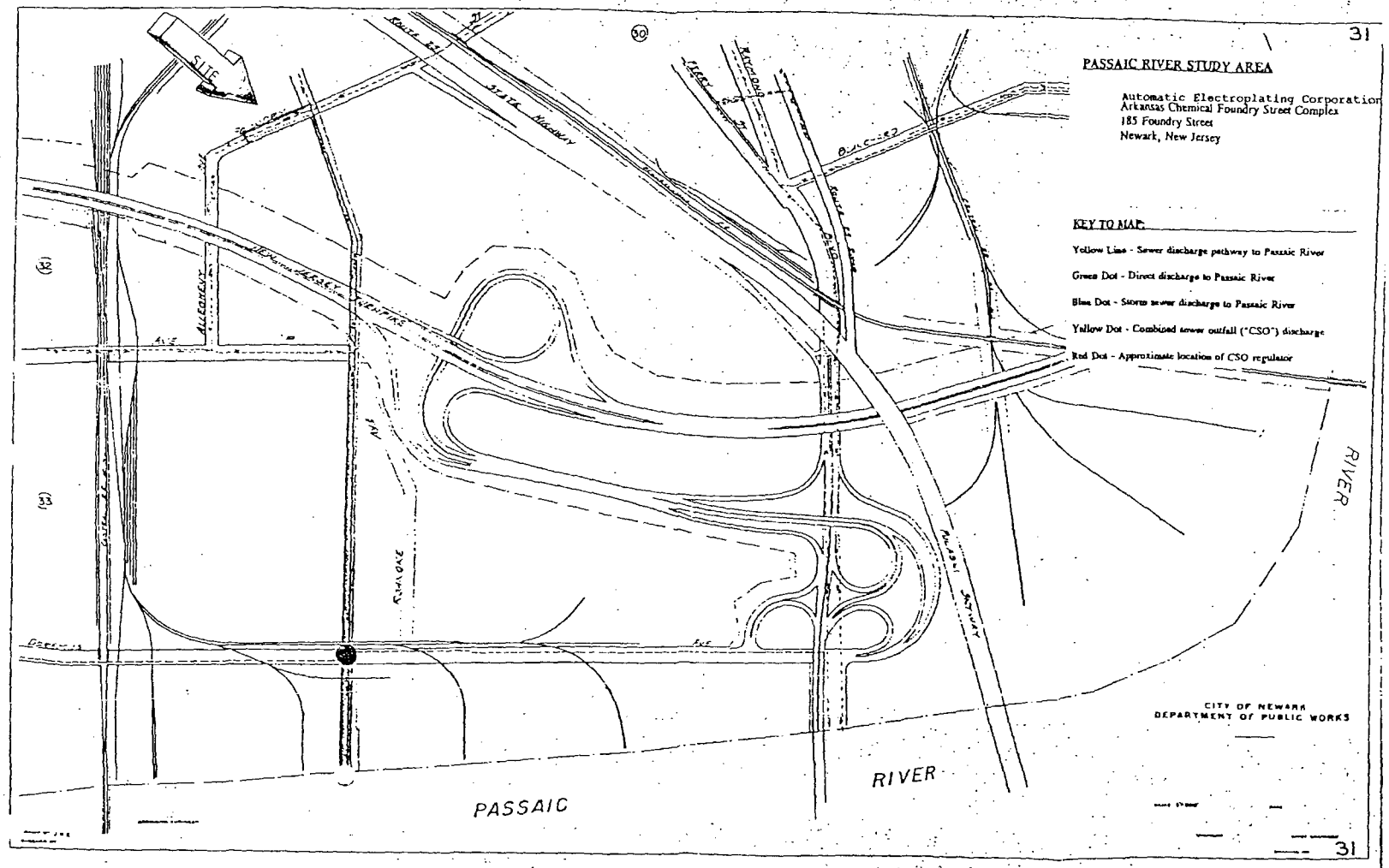
843600032

946020528

D

843600033

946020529



843600034

946020530

E

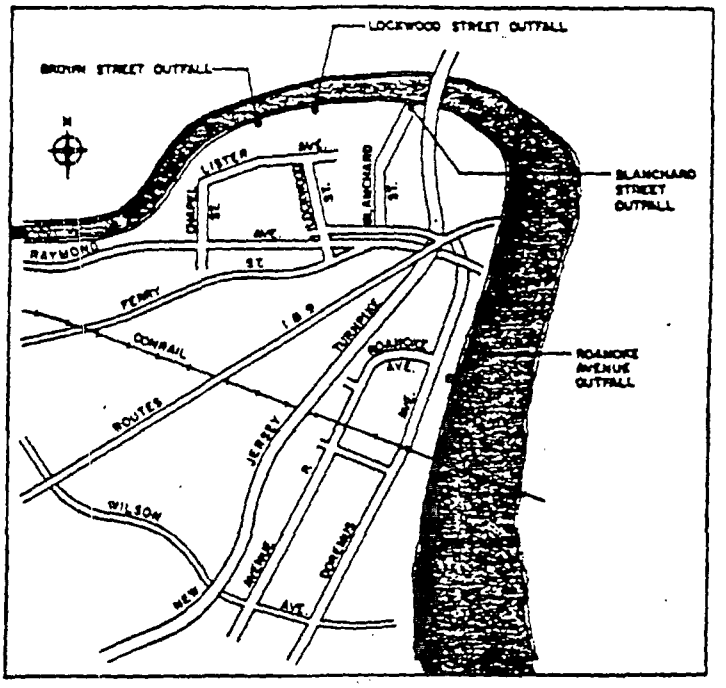
843600035

946020531

City of Newark, New Jersey

Feasibility Study

POLLUTION ABATEMENT PROGRAM



Clinton Bogert Associates
Consulting Engineers

September, 1973
Revised January, 1974

843600036

946020532

CLINTON BOGERT ASSOCIATES

PARTNERS
IVAN L. BOGERT
HERBERT L. KAUFMAN

PRINCIPAL ASSOCIATES
WAYNE EAKINS
JOHN H. SCARING

ASSOCIATES
JOHANNES BEWAAL
FRANCIS J. DOBROWOLSKI
IGNAT ROTTENBUCHER
DANIEL S. GREENE
HERBERT LANDESMAN
UMBERTO A. MILLETARI
WILLIAM WHEELER

CONSULTING ENGINEERS

2125 CENTER AVENUE • FORT LEE NEW JERSEY 07024
(201) 644 1676 • CABLE: BOGERTENG FORTLEENJ

January 24, 1979

Honorable Kenneth A. Gibson, Mayor
City of Newark
City Hall
920 Broad Street
Newark, New Jersey 07102

Re: Pollution Abatement

Dear Mayor Gibson:

In accordance with our contract dated February 15, 1978, submitted herewith is our report on the sources of pollution discharging to the lower Passaic River during dry weather from the Roanoke Avenue combined sewer system and the Blanchard, Lockwood, and Brown Street storm sewer systems. Each system is discussed in a separate section which contains:

(1) A description of the existing sewers.
(2) Findings of the physical inspection.
(3) Conclusions and recommendations applicable to that system.

Appropriate additional items are included as follows:

(1) For the Roanoke Avenue combined sewer system (Section III), a hydraulic analysis is presented. Significant conclusions are:

(a) all dry weather overflows may not be eliminated by rehabilitation of the existing system alone; but either flow routing, using storage available in the existing sewers, or increased interceptor capacity is required; and,

(b) a faulty regulator results in all sewage flows discharging untreated to the Passaic River.

(2) For the Blanchard Street storm sewer (Section IV), the results of dry weather flow sampling and gauging, smoke testing and T.V. inspection are presented. Significant conclusions are the need to:

(a) replace about 1,300 feet of existing 24" storm sewer which appears in danger of collapse,

(b) improve housekeeping around industrial railroad sidings, and,

843600037

946020533

Honorable Kenneth A. Gibson, Mayor
City of Newark
City Hall
920 Broad Street
Newark, New Jersey 07102

CONSULTING ENGINEERS

We would be pleased to meet with you to review any matters contained herein. We wish to express our appreciation of the assistance given us by members of your staff, particularly Mr. Robert Benz, in carrying forward this work.

Very truly yours,

CLINTON BOGERT ASSOCIATES

Herbert L. Kaufman

Herbert L. Kaufman
P.E., N.J. Lic. No. 13647

HLK:mmb
Enclosure

843600038

946020534

Table of Contents

Page No.

Letter of Transmittal

I. Introduction..... 1

II. Scope of Work..... 3

III. Roanoke, Doremus, and Wilson Avenue Sewers..... 4
- A. Existing Sewers..... 4
- B. Physical Inspection Findings..... 5
  - 1. Avenue "P" Regulator and Roanoke Outfall Sewer..... 5
  - 2. Roanoke Avenue Sanitary Sewer..... 6
  - 3. Doremus Avenue Interceptor..... 6
  - 4. Wilson Avenue Interceptor..... 7
  - 5. Roanoke Avenue Regulator..... 7
- C. Hydraulic Analysis..... 8
  - 1. Flow Measurement Methods..... 8
  - 2. Observed Flow Rates..... 8
  - 3. Diversion of Roanoke Flow to PVSC Interceptor.....10
  - 4. Diversion Works.....14
- D. Conclusions and Recommendations.....17

IV. Blanchard Street.....20
- A. Physical Inspection Findings.....20
- B. Dry Weather Sampling and Flow Rates.....23
- C. Smoke Testing.....24
- D. Television Inspection.....25
- E. Conclusions and Recommendations.....26

V. Lockwood Street Outfall.....28
- A. Physical Inspection Findings.....28
  - 1. Lister Avenue Sewer.....28
  - 2. Morris Canal Sewers.....29
  - 3. Euclid Avenue Sewer.....29
  - 4. Albert Avenue Sewer.....30
  - 5. Lockwood Street Sewer.....30
  - 6. Lister Avenue Tide Gate.....30
  - 7. Lockwood Street Outfall.....31
- B. Dry Weather Flow Sampling and Flow Monitoring.....32
- C. Smoke Testing.....34
- D. Television Inspection.....35
- E. Conclusions and Recommendations.....38

(continued)

843600039

946020535

Table of Contents
(continued)

	Page No.
VI. Brown Street	
A. Configuration	41
B. Physical Inspection Findings	41
C. Dry Weather Effluent Sampling	42
D. Conclusions and Recommendations	44
VII. General Recommendations	45
VIII. Appendices	
A. Analytical Test Results	46
B. Letter From Robinson Pipe Cleaning Company	Following Text

843600040

946020536

ILLUSTRATIONS
(Following Appendices)

A. Plate 1 - Sanitary and Combined Sewer Configurations on Roanoke, Doremus and Wilson Avenues

B. Plate 2 - Sources of Pollution in Storm Sewer Systems on Blanchard, Lockwood and Brown Streets

C. Plate 3 - Diurnal Sewage Flow Patterns, Roanoke Avenue Outfall Sewer

D. Plate 4 - Diurnal Sewage Flow Patterns, Roanoke Avenue Outfall Sewer

E. Plate 5 - Diurnal Sewage Flow Patterns, Doremus Avenue Interceptor

F. Plate 6 - Diurnal Sewage Flow Patterns, Doremus Avenue Interceptor

G. Plate 7 - Diurnal Sewage Flow Patterns, Wilson Avenue Interceptor

H. Plate 8 - Diurnal Sewage Flow Patterns, Wilson Avenue Interceptor

I. Plate 9 - Flow Rates at the Lister Avenue Tide Gate Chamber

843600041

946020537

I. Introduction

Polluted liquid wastes are being discharged into the lower Passaic River from four sewers owned by the City of Newark. These wastes include continuous discharges from the wet weather outfall of the Roanoke Avenue combined sewer, and the Blanchard Street and the Lockwood Street storm sewers, and intermittent discharges from the Brown Street sewer. During dry weather, no flow should be discharged from the Roanoke Avenue outfall and only non-polluted water from the Blanchard Street, Lockwood Street, and Brown Street storm sewers, however, high levels of pollutants have been detected in the dry weather discharges at all four locations. The following ranges of pollutant concentrations and pH have been reported by the Passaic Valley Sewerage Commissioners (PVSC) during the last two-years.

	Pollutant Concentration (ppm)			
Location	TSS	COD	BOD	pH
Roanoke Avenue	5-1428	116-15600	102-6300	2.0-7.3
Blanchard Street	5-1070	51-2815	7-420	1.9-8.2
Lockwood Street	16-3148	119-3408	8-840	3.3-9.2
Brown Street	7-93	42-352	16-135	6.2-9.8

A non-functioning regulator causes the dry weather discharge at Roanoke Avenue. Illegal connections, surface chemical spillage and contaminated groundwater are the sources of pollutants detected in the three storm sewers.

Water from the Passaic River may enter all four sewers with the incoming tide and dilute the pollutant concentration. The pollutants may also be carried upstream of their entering points. Polluted flow from the sewer increases in rate with the falling tide. The highest

843600042

946020538

pollutant concentration and flow rates can be expected at low tide. During this study, samples were obtained within the three storm sewers systems at or near the times of low tide. The analytical test results of these samples are included in Appendix A.

843600043

946020539

II. SCOPE OF WORK

The PVSC industrial waste surveys for each industry in the tributary area have been reviewed and the probable pollutants in each industrial waste compared with those found in the sewer discharges. All manholes, regulators, tide gates, and inlets have been inspected. The condition and serviceability of sewerage facilities was noted. Connections to manholes and inlets and other sources of flow were located. Spillage and housekeeping procedures at the various industrial facilities were observed. Dry weather flow sampling points were selected, and dry weather flow sampled to isolate sources of pollution entering the storm sewer systems. Where possible, storm and sanitary sewers were smoke tested to locate cross connections, and the sections of storm sewer suspected of having industrial waste connections were inspected with closed circuit television. In some reaches, television inspection was not possible because of physical blockages or waste pools resulting from irregular sewer grades. The condition of the various pipes was determined and the location of improper or suspicious connections noted. The results of these investigations were analyzed and are presented in this report. Recommendations for eliminating all the sources of pollution identified by the described techniques are included.

843600044

946020540

III. Roanoke, Doremus and Wilson Avenue Sewers

A. Existing Sewers

The present sewer layout is shown on Plate 1. The manholes on Wilson Avenue are numbered consecutively from W-1 in the Avenue "P" intersection to W-9 on the westerly side of Doremus Avenue. The manholes on Doremus Avenue are numbered consecutively from D-1 on the northerly side of Wilson Avenue to D-28 on the southerly side of the Roanoke Avenue regulator. Changes made in 1951 to accommodate construction of the New Jersey Turnpike included construction of the Avenue "P" regulator on the 54-inch Roanoke Avenue combined sewer at a point approximately 1425 feet upstream of Doremus Avenue. The regulator was planned to divert all dry weather flow to the Doremus Avenue interceptor through a new 24-inch sanitary sewer paralleling the 54-inch Roanoke Avenue combined sewer. The combined sewer downstream of the Avenue "P" regulator was converted to a wet weather outfall. The 18-inch sanitary sewer in the northern portion of Doremus Avenue was connected to the new 24-inch sanitary sewer by an inverted siphon passing under the 54-inch Roanoke combined sewer and its flow bypasses the old Roanoke Avenue regulator which was sealed off and abandoned. Sewage in the Doremus Avenue sewer flows to the Wilson Avenue interceptor and discharges to the PVSC interceptor. All excess wet weather flow in the Roanoke Avenue combined sewer was intended to overflow the Avenue "P" regulator weir and discharge to the Passaic River.

843600045

946020541

B. Physical Inspection Findings

(1) Avenue "P" Regulator and Roanoke Outfall Sewer

The Avenue "P" regulator is not functioning. Over two feet of dry, granular sediment blocks the regulator gate chamber and prevents flow between the diversion chamber and the Roanoke Avenue dry weather sewer. As a result, all flow in the Roanoke Avenue combined sewer enters the Passaic River through the Roanoke Avenue outfall. There is no visible evidence of chemical attack or deterioration of the concrete regulator structure. The regulator mechanism is corroded and not functional. A wooden overflow weir, provided in the diversion chamber, is intact. This weir does not cause the upstream pipe to surcharge above the crown in dry weather. It does reduce upstream flow velocity and causes sedimentation. About 0.5 feet of primarily granular sediment was found in the combined sewer above the regulator. This material accumulates in dry weather and the lighter fractions, probably including most organic pollutants, may be flushed toward the Passaic River during relatively small rainfall events. Tests of wet weather flows in other areas indicate the flushing of such solids is accompanied by a large increase in BOD. High tides cause backup, reduce velocities, and cause sediment accumulation in the Roanoke Avenue outfall during dry weather. Some of this material may be carried away by the flow at low tide and some is scoured out by wet weather flows. About 0.2 feet of primarily granular sediment was found in the outfall sewer downstream of the Avenue "P" regulator. The size of this sewer changes to 60-inch at a manhole on the easterly side of Doremus Avenue. Remnants of the brick dam, used to divert flow into the Roanoke Avenue regulator, were observed in this manhole. There are two tide gate chambers in the 60-inch outfall. Both tide gates can swing open but neither can close completely because of sediment. No deterioration of the concrete was visible in

843600046

946020542

the tide gate chambers. A lump of bituminous material is partially blocking the discharge of the 60-inch outfall.

(2) Roanoke Avenue Sanitary Sewer

The 24-inch Roanoke Avenue sanitary sewer does not receive any flow at its upstream end because of the previously described blockage in the Avenue "P" regulator gate chamber. The manhole in the 24-inch sanitary sewer immediately downstream of the regulator contains over two feet of dry sediment. The sewer receives flow from the Pitt Consol Chemical Company downstream of that manhole. About 0.5 feet of a black, tar-like sediment was found in the sewer downstream of the Pitt Consol connections. The same black material was observed on the ground surface at the Pitt Consol plant. This material was not evident upstream of the Avenue "P" regulator or in the Roanoke Avenue outfall. Its source is evidently Pitt Consol. Sampling and analysis done jointly by the PVSC laboratory and Pitt Consol also detected chemicals used at the plant in the Roanoke Avenue outfall. However, no connections from Pitt Consol were found in the outfall. Spillage appears to have contaminated the groundwater and some appears to be leaking into the outfall. Groundwater pollution may also be leaking directly into Newark Bay. Groundwater pollution was not investigated since it was outside the scope of this study.

(3) Doremus Avenue Interceptor

The Doremus Avenue interceptor receives flow from the Roanoke Avenue sanitary sewer. Severe sedimentation was noted in this line. The first four lengths of 24-inch pipe upstream from Wilson Avenue (D-1 to D-5) were constructed on a reverse grade and the fifth length (D-5 to D-6) laid flat. The invert at Wilson Avenue is 1.2 feet higher than the low point where the minimum flow depth is greater than half pipe. Further upstream the sewer size changes from 24-inch to 22-inch and then to 20-inch in diameter. Sediment depth in the

843600047

946020543

F

843600048

946020544

Preliminary Assessment

Foundry Street Site/Arkansas Chemical
171-183 Foundry St.
Newark, Essex County

843600049

946020545

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME: Foundry Street Site/Arkansas Chemical	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 171-183 Foundry Street
03 CITY: Newark	04 STATE: NJ; 05 ZIP CODE: ; 06 COUNTY: Essex; 07 COUNTY CODE: ; 08 CONG. DIST:
09 COORDINATES LATITUDE: 40° 43' 34"	LONGITUDE: 74° 08' 01"
Block 5005	Lot 5

10 DIRECTIONS TO SITE: New Jersey Turnpike to Exit 15 E. Get onto Doremus Ave. and make a right onto Roanoke Ave. Follow Roanoke to Foundry St. The site is approximately 1000 feet down Foundry Street.

III. RESPONSIBLE PARTIES

01 OWNER: City of Newark	02 STREET: 920 Broad Street
03 CITY: Newark	04 STATE: NJ; 05 ZIP CODE: ; 06 TELEPHONE NUMBER: ( )
07 OPERATOR: Arkansas Chemical Co. (former owner & operator)	08 STREET: 171-183 Foundry St.
09 CITY: Newark	10 STATE: NJ; 11 ZIP CODE: ; 12 TELEPHONE NUMBER: ( )

13 TYPE OF OWNERSHIP: ☐ A. PRIVATE ☐ B. FEDERAL: ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER: ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE: ☐ A. RCRA 3001 DATE RECEIVED: ☐ B. UNCONTROLLED WASTE SITE DATE RECEIVED: ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION: ☐ YES DATE Numerous ☐ NO
BY: ☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER:
CONTRACTOR NAME(S):

02 SITE STATUS: ☐ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: 1943 | 1983 - ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN OR ALLEGED:
Numerous hazardous substances including benzene, carbon tetrachloride, 1,4 dioxane, methyl isocyanate, and many other toxic, corrosive and flammable substances have been abandoned at the site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION:
Due to deteriorating conditions present at the site and the presence of flammable, explosive and highly toxic substances, a potential for population exposure exists. The site is near heavily travelled roadways and residential areas, a potential for air, groundwater, surface water and soil contamination also exists.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION: ☐ A. HIGH ☐ B. MEDIUM ☐ C. LOW ☐ D. NONE

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Dave Beeman	02 OF: NJDEP/DWM/Metro Field Office	03 TELEPHONE NUMBER: (201) 669-3960

04 PERSON RESPONSIBLE FOR ASSESSMENT: Robert Beretsky	05 AGENCY: NJDEP	06 ORGANIZATION: HWM/BPA	07 TELEPHONE NUMBER: (609) 633-2215	08 DATE:

EPA FORM 2070-12 (7-81)

843600050

946020546

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			Many of the chemicals listed are
OLW	OILY WASTE			taken from an inventory provided
SOL	SOLVENTS			by Mark Von Sternberg of
PSD	PESTICIDES			Arkansas Chemical. The accuracy
OCC	OTHER ORGANIC CHEMICALS			of the inventory is not known.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See appendix for most frequently used CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Butyl Alcohol				
OCC	Acetic Anhydrite	108-24-7			
IOC	Ammonium Bromide	12124979			
ACD	70% Methane Sulfonic Acid				
OCC	Ethylene Diamine	107-15-3			
BAS	Soda Flake				
SOL	Perchloroethylene	127-18-4			
OCC	Methanol	67-56-1			
IOC	Silane				
OCC	Isophorone diisocyanate	4098-71-9			
OCC	Propylpipenidine	103-88951			
ACD	Lactic Acid	50215			
OCC	Polyethylene Alycol	25322683			
ACD	Sulfuric Acid	7664-43-9			
IOC	Ammonia	7664-41-7			
OCC	Diethylamine	109-89-7			

V. FEEDSTOCKS (See appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-12 (7-81)

843600051

946020547

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Estimate of these quantities; Mark all that apply)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most requested name CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	Benzene	71-43-2			
SOL	Carbon Tetrachloride	56-23-5			
OCC	Hexane				
IOC	Phosphoric Anhydride	1314-56-3			
SOL	Acetone	67-64-1			
OCC	1,4 Dioxane	123-91-1			
OCC	Ethyl Amine	75-04-7			
OCC	Ethylene Carbonate	964591			
OCC	Methyl Isocyanate	624-83-9			
SOL	Mineral Spirits				
OCC	Isopropanol	67-63-0			
SOL	Xylol (Xylene)	1330-20-7			
SOL	Chloroform	67-66-3			
IOC	Sodium Nitrate	7631-99-4			
IOC	Sodium Acetate				
IOC	Sodium Formate				

V. FEEDSTOCKS (See Appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-12 (7-81)

843600052

946020548

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

☐ A. SOLID ☐ E. SLURRY
☐ B. POWDER, FINES ☐ F. LIQUID
☐ C. SLUDGE ☐ G. GAS
☐ D. OTHER _____ (Specify)

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

☐ A. TOXIC ☐ E. SOLUBLE ☐ I. HIGHLY VOLATILE
☐ B. CORROSIVE ☐ F. INFECTIOUS ☐ J. EXPLOSIVE
☐ C. RADIOACTIVE ☐ G. FLAMMABLE ☐ K. REACTIVE
☐ D. PERSISTENT ☐ H. IGNITABLE ☐ L. INCOMPATIBLE
☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (Enter common name or CAS number)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Isopropanolamine	75-31-0			
OC	Diisocyanate				
OD	Oleic acid				
OCC	Promanol	71-23-8			
SOL	Naptha solvent	65996-79-4			
OCC	Diethanolamine	111-42-2			
OCC	Ethylenediamine	107-15-3			
SOL	Trichloroethylene	79-01-6			
OCC	Formaldehyde	50-00-0			
OCC	Diethylene glycol				

V. FEEDSTOCKS (Enter common name or CAS number)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

See Attachment L for a more legible version as provided by EPA-Edison
Attachment A-1-37 - NJDEP/HSMA/Bureau of Field Operations
Attachment A-30-56 - NJDEP/Environmental Quality/Metro Office
Attachment A-57-59 - NJDEP/Haz. Waste Mgnt./Metro Field Office

EPA FORM 2070-12 (7-81)

843600053

946020549

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Chemicals spilled on the ground surface may migrate through the soil column and contaminate groundwater in the area.
Att. B,C

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Spilled chemicals could migrate to storm drains via runoff. Storm drains at the site discharge to the Passaic River.
Att. B,C,D

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE 1/23/81) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Chemical odors were observed by DEP personnel near the tank storage area and in the process building during an inspection at the site.
Att. B,F p. 1

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Poor housekeeping by the former owners and vandalism at the site have allowed potentially incompatible substances to mix. Fuming and smoking bottles of materials were observed during an inspection of the site.
Att. F,F

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Trespassers on the property come into contact with hazardous substances located throughout the site. Extremely hazardous materials including methyl isocyanate have been discovered in easily accessible buildings at the site. Att. G,H,I

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Spillage of chemicals at the site is evidenced by stained areas around storage tanks. The lack of adequate secondary containment systems allows for migration of chemicals into the soil. Att. B,C

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
There are no water supplies within a mile radius of the site, therefore no potential exists.

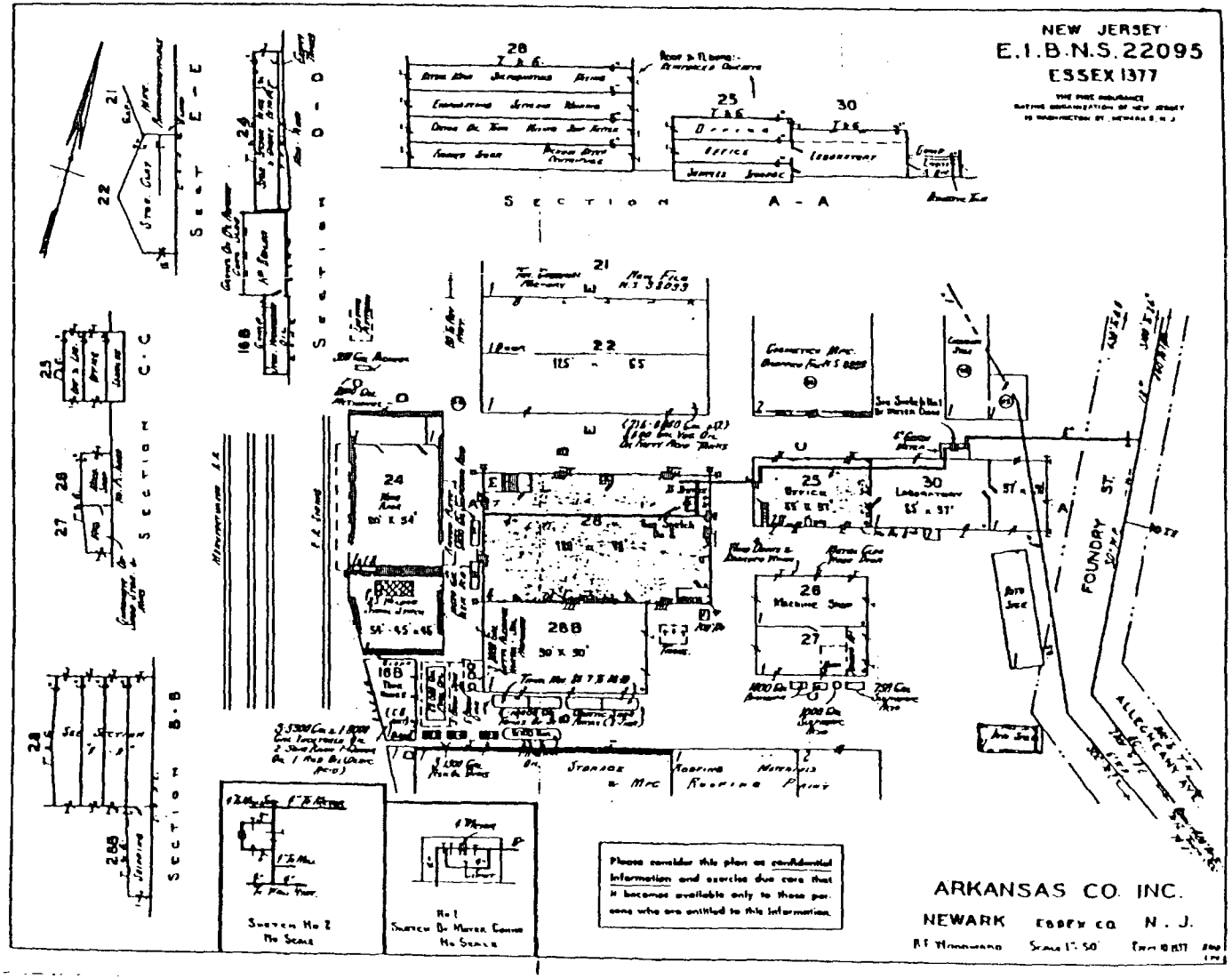
01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Workers involved with the cleanup of the site could be exposed to hazardous materials. Employees of nearby industries could also be exposed to materials or odors from the site.
Att. B,F

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Trespassers on the property could be exposed to hazardous substances located throughout the site. (Motorists travelling on the nearby NJ Turnpike or Route 1 & 9 could be exposed to toxic fumes which could emenate from the site as a result of mixing of incompatible materials or fires at the site.)
Att. G,H

EPA FORM 2070-12 (7-81)

843600054

946020550



843600055

946020551

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Chemicals migrating offsite via storm drains could damage aquatic flora in the Passaic River.
Att. D

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Chemicals migrating offsite via storm drains could damage aquatic fauna in the Passaic River.
Att. D

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The food chain in the Passaic River could be contaminated by hazardous substances entering the river via storm drains.
Att. D

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE Numerous) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Hazardous materials have been spilled and containers were observed broken, leaking or unsecure. Secondary containment at the site is inadequate to prevent migration of contaminants into soil or groundwater. Att. E-H

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Fires at the site could easily spread to nearby industries. Hazardous materials could damage the Passaic Valley Sewage Treatment plant.
Att. B,D,E,F,K

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Hazardous materilas could contaminate the Passaic Valley Sewage Treatment Plant and disrupt treatment processes. Storm drains could be contaminated by runoff containing hazardous materials.
Att. B,D,K

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE Numerous) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Poor housekeeping by the former owner and vandalism have resulted in hazardous materials being spilled and dumped throughout the site.
Att. E-H

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

The EPA is the lead agency involved with the site. A removal of all materials present and decontamination of buildings and all process vessels at the site are scheduled to begin in May 1987.

V. SOURCES OF INFORMATION

achment A1-37, 55-57 - NJDEP/DHWM/Metro Field Office
Att. A39-54 & 58-61 - NJDEP/Environmental Quality/Metro Field Office
Att. B,C,F,H,K - NJDEP/DHWM/Metro Field Office
Att. D & L - EPA-Edison
Att. E & I 1-8 - NJDEP/HSMA/Bureau Site Operations
Att. I 9

843600056

946020552

FOUNDRY STREET SITE/ARKANSAS CHEMICAL COMPANY
185 FOUNDRY STREET
NEWARK, ESSEX COUNTY

The Arkansas Chemical Company manufactured chemicals for the textile industry at 171-183 Foundry Street in Newark, Essex County from 1943 to September 1983. Arkansas Chemical Company owned the property from 1943 until 1978 when Galaxy Inc., a Florida Corporation, purchased the property. Mark Von Sternberg was president of both Galaxy, Inc. and Arkansas Chemcial Company. In September 1983 the City of Newark foreclosed on the property for failure of the company to pay real estate taxes. Arkansas Chemical Company and Galaxy, Inc. filed for voluntary bankruptcy in October and December 1983. Assests to both companies have been liquidated.

In 1984, inspections at the site by the NJDEP had revealed that hazardous materials were abandoned at the site. A Directive Letter was issued to Arkansas Chemical Company by the NJDEP in September 1984 as a result of conditions observed during the inspections. According to the Directive, the company was to secure access to the site, provide a list of materials present, and remove and properly dispose of all containers and contaminated soil at the site. An inventory of materials stored on site was provided by Mark Von Sternberg and funds were provided by the U.S. Bankruptcy Court to initiate cleanup. This initial cleanup consisted of moving the remaining materials outside into one of the buildings. Since the completion of the initial measures in January 1985, no other remedial actions have been undertaken by the company. As of April 1987, laboratory chemicals and approximately 500 drums, many of which contain hazardous or unknown substances remain at the site. Contaminated process vessels and laboratory equipment remain as well.

In May of 1985 the company filed for ECRA (Environmental Cleanup Responsibility Act) status as a result of proposed sale of the property. The deal was terminated in July 1985 and ECRA status was deactivated. The company is subject to ECRA if transfer of property occurs even though they filed for bankruptcy before ECRA was enacted because hazardous materials were stored on site after the December 31, 1983, enactment of ECRA.

Inspections by NJDEP in late 1986 and early 1987 have revealed continued deteriorating conditions at the site. There are six buildings and two sheds on site (see site map), all of which may contain hazardous substances. Building 28, which consists of 4 floors was probably the main process building. Approximately 450 drums are present in this building, many of which are leaking. Also present in this building are 6-10 process tanks, 10-15 holding/mixing tanks and 2 dry material mixers. Many of the lines to the tanks were leaking and powders and resins were spilled throughout the building. According to an inventory of bulk storage tanks at the site (Att: A p. 40), the following substances were present: 1-3500 gallon tank of Formaldehyde, 1-2700 gallon of Emulser OM (tradename), 1-2700 gallon tank of Dergon OM (tradename), 1-4000 gallon tank of Olive Elaine (tradename), 1-5000 gallon tank of Syponie 4-500 (tradename), 1-4000 gallon tank of Ingepal 730 (tradename) and 1-1750 gallon tank of diethylene glycol. It is unknown if any materials remain in these tanks. There are also two laboratories present in Building 28 which also contain chemicals. The drums moved from the outside during the initial cleanup were also stored here and the roof was leaking in many areas.

Buildings 25 and 30 are attached (consider as building 25/30) and consist of offices and laboratories. All of the laboratories contain various amounts of chemicals of which three bottles were observed to be fuming or smoking. Numerous other deficiencies were ceilings and a flooded basement. Many chemical containers were submerged in the flooded basement. Spillage and leakage of chemicals throughout this building is also evident.

Building 24 consists of one story and contains approximately 25 drums of unknown content.

Buildings 26 and 27 (designated building 26/27) are attached and contain storage vessels, a filter press and approximately 20 drums. According to the inventory provided by Arkansas in 1981, (Att: A p. 40) two storage tanks consisting of 1-5000 gallon tank of Ingepal CO-710 (tradename) were inside building 27. The contents of the drums are unknown.

The two on site sheds also contain containers of chemical substances. One shed contains approximately 40 drums of unknown materials. One drum in this shed which was opened contained chunks of a solid beige substance (possibly tallow). It is unknown if the other drums contain similar substances.

The second shed contains approximately 25-5 gallon containers of various chemicals including benzene, carbon tetrachloride, and 1,4 dioxane. A container of methyl isocyamate, which is included in the Toxic Catostrophe Prevention Act as requiring immediate removal, was also discovered and later removed from this shed.

According to the site map, there are 18 storage vessels outside the buildings. These vessels are believed to be empty but may contain residual materials. The site map, which was produced in 1957, labels the contents for each of these vessels. However, it is not believed that the most recent contents of these tanks corresponds to those labeled on the site map. According to the 1981 inventory as supplied by Arkansas, only 12 of the 18 vessels were in use (Att: A p. 40). The contents of the tanks as listed by Arkansas includes 1-2016 gallon and 1-4050 gallon tank of sulfuric acid, 2-10076 gallon tanks of 33% caustic soda, 2-2400 gallon tanks of solvent naptha, 1-10076 gallon tank of ammonia, 1-2400 gallon tank of _?_ 1-2828 gallon tank of N-20080 gallon fuel oil tank.

It should be noted that many of the materials remaining at the site are explosive flammable or incompatible (see Att: I for properties of chemicals). Since many materials have mixed or are in danger of mixing, a potential for extremely explosive and hazardous conditions exists at the site.

The leaking ceilings in many of the buildings and the chemicals submerged in the flooded basements also leads to concern since some of the chemicals on the site are water reactive. Acetic anhydride is explosive if contact with water, and phosphorus pentoxide and water are incompatible. Tolyl chloride (benzyl chloride) emits toxic and corrosive fumes if mixed with water. Also, quantities of heat could be generated from mixtures of water and various acids stored on site which could then cause reactions with heat sensitive chemicals. Because of the haphazard storage of materials at the site, any reactions between chemicals will likely result in chain reactions fires and explosions.

Since many of the chemicals will emit toxic and noxious fumes and smoke if a reaction should occur, a high potential for disaster exists because of the proximity of the site to residential areas and heavily travelled roadways. The New Jersey Turnpike is only a few hundred feet to the east of the site and Route 1 and 9 lies about 1000 feet to the west. The nearest residential area is approximately .25 miles west of the site.

Before on-site security was established in January 1987 by NJDEP and EPA, the site was easily accessible to the public. Vandalism, which was evident throughout the site, contributed to spillage and mixing of chemicals inside the buildings. A fire in one of the buildings in January 1987 was attributed to arson and could have been disastrous if it spread to flammable materials. Another cause for concern lies in the possibility that vandals may have unknowingly come into contact with hazardous materials including methyl isocyanate, benzene, chloroform or ispropyl alcohol to name a few. Many of the materials are skin absorbed and extremely toxic.

An inspection by NJDEP personnel in 1981 revealed inadequate secondary containment around the outdoor bulk storage tanks to prevent spilled material from entering the soil (Att: B pp. 1-2). The grounds around the tanks were observed to be stained from numerous spills. Also, materials which were stored outside may have leaked onto the ground surface. Spilled materials may leach through the soil and contaminate groundwater in the area which is used for industrial purposes. The potential also exists for contaminants to migrate to Newark Bay or the Passaic River via groundwater migration. Spilled materials or contaminated runoff may enter storm drains which discharge to the Passaic River. Any contaminants entering the river or Newark Bay may be detrimental to aquatic organisms.

Due to the immediate danger to public safety and the environment and the lack of state funds available for cleanup, the NJDEP requested assistance from the USEPA for removal of hazardous materials and site security in January 1987.

According to Thomas Kady of the EPA regional office in Edison, New Jersey, all materials will be removed from the site, and all on-site vessels and buildings will be decontaminated. Security at the site was initiated in January 1987, and removal of materials is scheduled to begin in May 1987. Long term remedial actions by EPA may include soil and groundwater investigations.

Since EPA is currently the lead agency in the case, no further action is recommended at this time. If soil and groundwater investigations are not undertaken by EPA, it is recommended that the NJDEP (Site Mitigation) develop an investigative program to assess the current potential hazards associated with the site.

946020556

D&B

Decide with Confidence

Comprehensive Report

To save report(s) to your PC, click here for instructions.

Print this Report

Copyright 2006 Dun & Bradstreet - Provided under contract for the exclusive use of subscriber 263725069L

ATTN: **JHB%20LPRSA%20TASK%207**

Report Printed: FEB 08 2006

Overview

BUSINESS SUMMARY

CRODA INC
(FOREIGN PARENT IS CRODA INTERNATIONAL PLC, GOOLE, UK-ENGLAND)
300-a Columbus Cir
Edison, NJ 08837

D&B D-U-N-S Number: 00-133-1032

This is a **headquarters (subsidiary)** location.
nch(es) or division(s) exist.

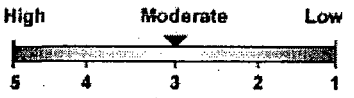
Web site:	www.crodausa.com
Telephone:	732 417-0800
Chief executive:	KEVIN GALLAGHER, PRES
Year started:	1950
Employs:	210 (75 here)
History:	CLEAR
SIC:	2899
Line of business:	Mfg chemical preparations

Now Included with this Report NEW!

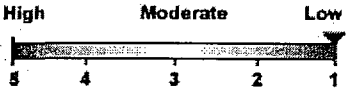
D&B's Credit Limit Recommendation
How much credit should you extend?
Learn More — **View Now**

Payment Trends Profile
Payment trends and industry benchmarks
Jump to Payment Trends

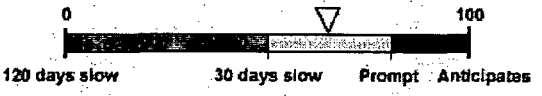
Credit Score Class: 3
Moderate risk of severe payment delinquency over next 12 months



Financial Stress Class: 1
Low risk of severe financial stress over the next 12 months



12-Month D&B PAYDEX®: 66
When weighted by dollar amount, payments to suppliers average 19 days beyond terms.



D&B Rating:	**1R2**
Number of employees:	1R is **10 or more** employees.
Composite credit appraisal:	2 is **good**.

D&B EXCLUSIVE

946020557

EXECUTIVE SUMMARY

The **Financial Stress Class of 1** for this company shows that during the previous year, firms with this classification had a failure rate of 0.49% (49 per 10,000), which is lower than the national average.

Credit Score class of 3 for this company shows that during the previous year, 12.3% of the firms with this classification paid one or more bills severely delinquent, which is lower than the national average.

Predictive Scores	This Business	Comments
Financial Stress Class	1	Failure Rate lower than the national average
Financial Stress Score	1398	Highest Risk: 1,001; Lowest Risk: 1,850
Credit Score Class	3	Probability of Severely Delinquent Payment is lower than the national average.
Other Key Indicators		
PAYDEX Scores	19 days beyond terms	Pays more slowly than the average for its industry of 12 days beyond terms
Industry Median	12 days beyond terms	
Present management control	56 years	
UCC Filings	UCC filing(s) are reported for this business	
Public Filings	No record of open Suit(s), Lien(s), or Judgment(s) in the D&B database	
History	Is clear	

CREDIT CAPACITY SUMMARY

D&B Rating: **1R2**
Number of employees: 1R indicates **10 or more** employees.
Composite credit appraisal: 2 is **good**.

1R and 2R ratings categories reflect company size based on the total number of employees for the business. They are assigned to business files that do not contain a current financial statement. In 1R and 2R Ratings, the 2, 3, or 4 creditworthiness indicator is based on analysis by D&B of public filings, trade payments, business age and other important factors. 2 is the highest Composite Credit Appraisal a company not supplying D&B with current financial information can receive. For more information, see the D&B Rating Key.

# of Employees Total: 210 (75 here)

Payment Activity:
(based on 139 experiences)

Average High Credit:	$23,194
Highest Credit:	$2,000,000
Total Highest Credit:	$3,203,750

Jump to:

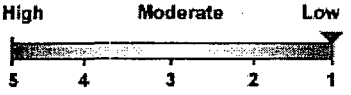
Overview | Payments | Public Filings | History & Operations | Banking & Finance

Scores D&B EXCLUSIVE

FINANCIAL STRESS SUMMARY

The Financial Stress Summary Model predicts the likelihood of a firm ceasing business without paying all creditors in full, or reorganization or obtaining relief from creditors under state/federal law over the next 12 months. Scores were calculated using a statistically valid model derived from D&B's extensive data files.

Financial Stress Class: 1



946020558

Low risk of severe financial stress, such as a bankruptcy, over the next 12 months.

Incidence of Financial Stress

Among Businesses with this ssification:	0.49% (49 per 10,000)
..ational Average	1.40% (140 per 10,000)

Financial Stress National Percentile: 30 (Highest Risk: 1; Lowest Risk: 100)

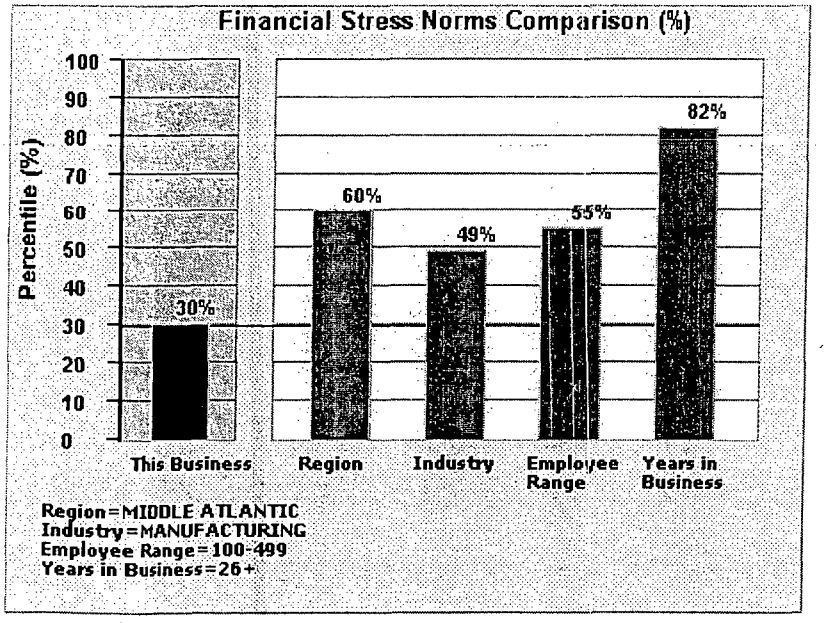
Financial Stress Score: 1398 (Highest Risk: 1,001; Lowest Risk: 1,850)

The Financial Stress Class of this business is based on the following factors:

- No record of open suit(s), lien(s), or judgement(s) in the D&B files.
- 41% of trade experiences indicate slow payment(s) are present.
- Payment experiences exist for this firm which are greater than 60 days past due.
- Control age or date entered in D&B files indicates lower risk.

Notes:

- The Financial Stress Class indicates that this firm shares some of the same business and financial characteristics of other companies with this classification. It does not mean the firm will necessarily experience financial stress.
- The Incidence of Financial Stress shows the percentage of firms in a given Class that discontinued operations over the past year with loss to creditors. The Incidence of Financial Stress - National Average represents the national failure rate and is provided for comparative purposes.
- The Financial Stress National Percentile reflects the relative ranking of a company among all scorable companies in D&B's file.
- The Financial Stress Score offers a more precise measure of the level of risk than the Class and Percentile. It is especially helpful to customers using a scorecard approach to determining overall business performance.
- All Financial Stress Class, Percentile, Score and Incidence statistics are based on 2002.



Norms	National %
This Business	30
Region: **MIDDLE ATLANTIC**	60
Industry: **MANUFACTURING**	49
Employee Range: **100-499**	55
Years in Business: **26+**	82

This business has a Financial Stress Percentile that shows:

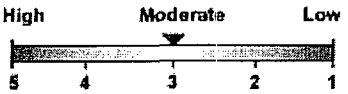
- Higher risk than other companies in the same region.
- Higher risk than other companies in the same industry.
- Higher risk than other companies in the same employee size range.
- Higher risk than other companies with a comparable number of years in business.

946020559

CREDIT SCORE CLASS SUMMARY

The Credit Score class predicts the likelihood of a firm paying in a severely delinquent manner (90+ Days Past Terms) over the next twelve months. It was calculated using statistically valid models and the most recent payment information in D&B's files.

Credit Score Class: 3



Moderate risk of severe payment delinquency over next 12 months.

Incidence of Delinquent Payment

Among Companies with this Classification: 12.30%

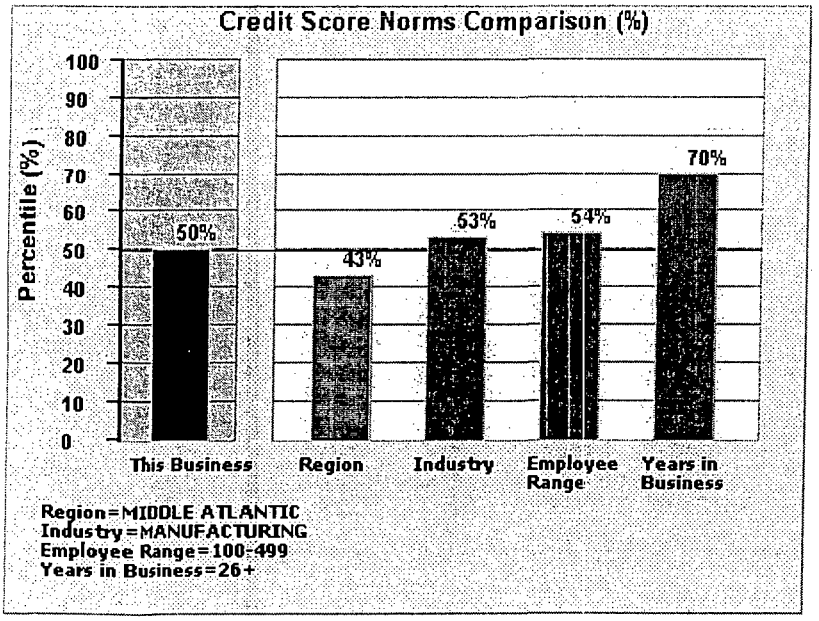
Credit Score Percentile: 50 (Highest Risk: 1; Lowest Risk: 100)

The Credit Score Class of this business is based on the following factors:

- Payment experiences exist for this firm which are greater than 60 days past due.
- 41% of trade experiences indicate slow payment(s) are present.
- Control age or date entered in D&B files indicates lower risk.
- No record of open suit(s), lien(s), or judgments(s) in the D&B files.
- Business does not own facilities.

Notes:

- The Incidence of Delinquent Payment is the percentage of companies with this classification that were reported 90 days past due or more by creditors. The calculation of this value is based on an inquiry weighted sample.
- The Percentile ranks this firm relative to other businesses. For example, a firm in the 80th percentile has a lower risk of paying in a severely delinquent manner than 79% of all scorable companies in D&B's files.



Norms	National %
This Business	50
Region: **MIDDLE ATLANTIC**	43
Industry: **MANUFACTURING**	53
Employee Range: **100-499**	54
Years in Business: **26+**	70

This business has a Credit Score Percentile that shows:

- Lower risk than other companies in the same region.
- Higher risk than other companies in the same industry.
- Higher risk than other companies in the same employee size range.
- Higher risk than other companies with a comparable number of years in business.

946020560

Jump to:

Overview | Scores | Public Filings | History & Operations | Banking & Finance

Payments D&B EXCLUSIVE

PAYMENT TRENDS

Total Payment Experiences in D&B's File:	139
Payments Within Terms: (not dollar weighted)	74%
Total Placed For Collection:	1
Average Highest Credit:	$23,194
Largest High Credit:	$2,000,000
Highest Now Owing:	$2,000,000
Highest Past Due:	$900,000

Current PAYDEX is:	**66**	equal to 19 days beyond terms
Industry Median is:	**72**	equal to 12 days beyond terms
Payment Trend currently is:	↔	**unchanged**, compared to payments three months ago

Indications of slowness can be the result of dispute over merchandise, skipped invoices, etc. Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed.

PAYDEX Scores

Shows the D&B PAYDEX scores as calculated on the most recent 3 months and 12 months of payment experiences.

D&B PAYDEX is a unique, dollar weighted indicator of payment performance based on up to payment experiences as reported to D&B by trade references. A detailed explanation of how to read and interpret PAYDEX scores can be found at the end of this report.

3-Month D&B PAYDEX: 67
When weighted by dollar amount, payments to suppliers average 18 days beyond terms.

0 — 100
120 days slow | 30 days slow | Prompt | Anticipates

Based on payments collected over last 3 months.

12-Month D&B PAYDEX: 66
When weighted by dollar amount, payments to suppliers average 19 days beyond terms.

0 — 100
120 days slow | 30 days slow | Prompt | Anticipates

Based on payments collected over last 12 months.

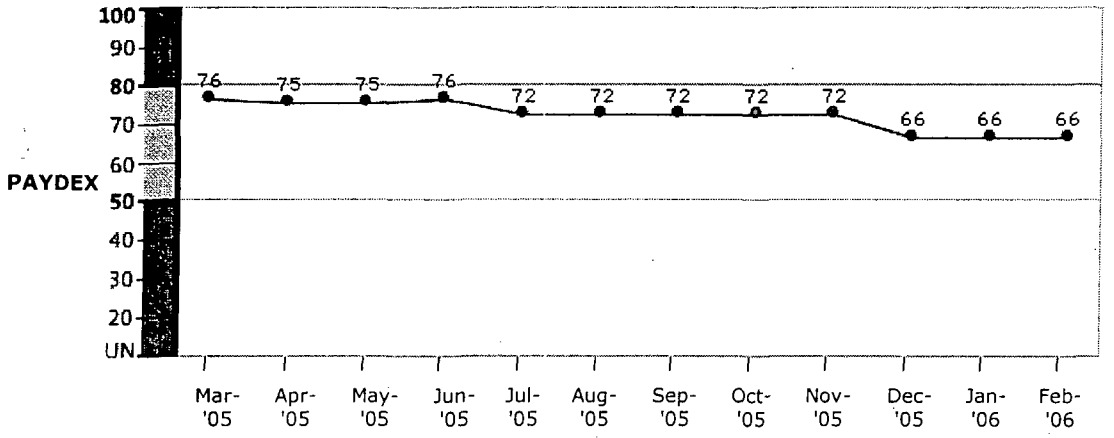
PAYDEX Yearly Trend

12 Month PAYDEX Scores Comparison to Industry

	3/05	4/05	5/05	6/05	7/05	8/05	9/05	10/05	11/05	12/05	1/06	2/06
This Business	76	75	75	76	72	72	72	72	72	66	66	66
Industry Quartiles												
Upper	76			76			76			76		
Median	71			72			72			72		
Lower	67			68			68			68		

Shows the trend in D&B PAYDEX scoring over the past 12 months.

946020561



Last 12 Months

Based on payments collected over the last 12 months.

- Current PAYDEX for this Business is 66, or equal to 19 days beyond terms
- The 12-month high is **76**, or equal to 6 days beyond terms
- The 12-month low is **66**, or equal to 19 days beyond terms

PAYDEX Comparison to Industry

Shows PAYDEX scores of this Business compared to the Primary Industry from each of the last four quarters. The Primary Industry is Mfg chemical preparations, based on SIC code 2899.

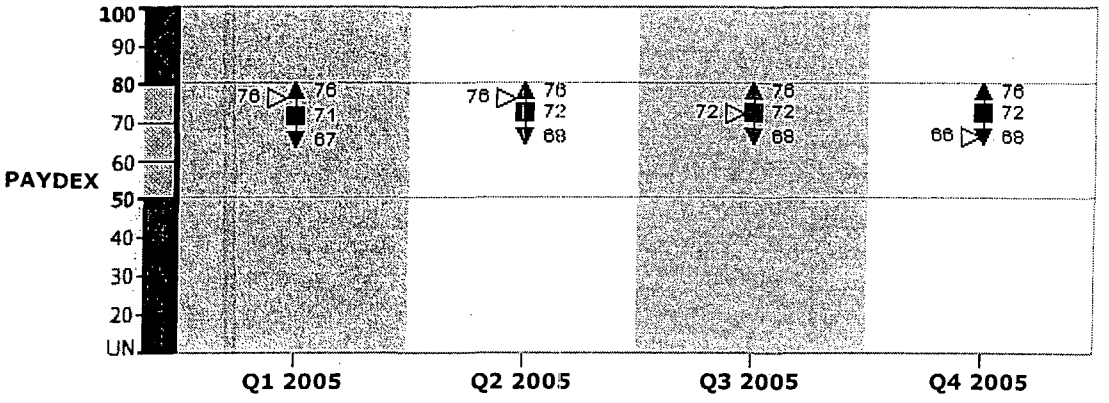
rterly PAYDEX Scores Comparison to Industry

Previous Year

	3/04	6/04	9/04	12/04
This Business	72	74	75	77
Industry Quartiles				
Upper	75	76	76	76
Median	72	72	72	71
Lower	68	68	68	67

Current Year

	3/05	6/05	9/05	12/05
This Business	76	76	72	66
Industry Quartiles				
Upper	76	76	76	76
Median	71	72	72	72
Lower	67	68	68	68



Last 12 Months

d on payments collected over the last 4 quarters.

This Business Industry upper quartile

946020562

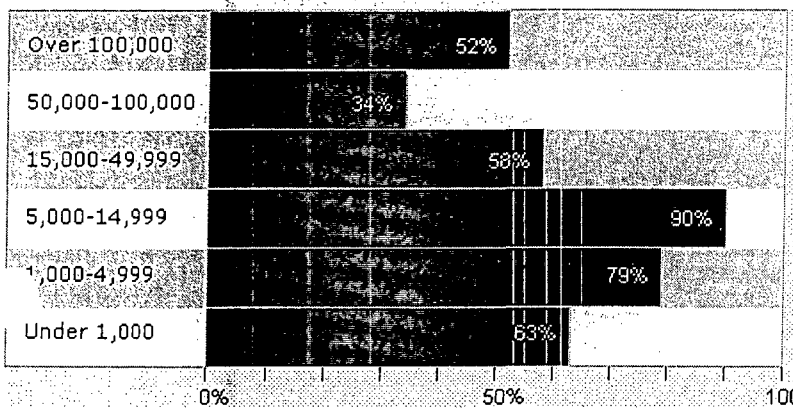
Score Comparison Key: ▷ ▲ ■ Industry median ▼ Industry lower quartile

urrent **PAYDEX** for this Business is **66**, or equal to 19 days beyond terms
- The present industry **median score** is **72**, or equal to 12 days beyond terms.

- Industry upper quartile represents the performance of the payers in the 75th percentile
- Industry lower quartile represents the performance of the payers in the 25th percentile

Payment Habits

For all payment experiences within a given amount of credit extended, shows the percent that this Business paid within terms. Provides number of experiences used to calculate the percentage, and the total dollar value of the credit extended.



$ Credit Extended	% of Payments Within Terms	# Payment Experiences	$ Total Dollar Amount
Over 100,000	52%	2	$2,100,000
50,000-100,000	34%	4	$235,000
15,000-49,999	58%	22	$550,000
5,000-14,999	90%	20	$150,000
1,000-4,999	79%	33	$57,000
Under 1,000	63%	53	$16,000

Based on payments collected over the last 12 months.

Payment experiences reflect how bills are met in relation to the terms granted. In some instances, payment beyond terms can be the result of disputes over merchandise, skipped invoices, etc.

PAYMENT SUMMARY

The Payment Summary section reflects payment information in D&B's file as of the date of this report.

There are 139 payment experiences in D&B's file for the most recent 12 months, with 104 experiences reported during the last three month period.

Below is an overview of the company's dollar-weighted payments, segmented by its suppliers' primary industries:

	Total Rcv'd (#)	Total Dollar Amts ($)	Largest High Credit ($)	Within Terms (%)	Days Slow <31 (%)	31-60 (%)	61-90 (%)	90> (%)
Top industries:								
Trucking non-local	27	155,500	45,000	59	32	8	1	0
Nonclassified	10	137,600	75,000	29	71	0	0	0
Telephone communictns	10	16,450	5,000	100	0	0	0	0
organic chemicals	5	121,000	50,000	44	56	0	0	0
Wnol electrical equip	4	63,000	50,000	60	0	0	40	0
Electric services	4	58,500	35,000	100	0	0	0	0
Arrange cargo transpt	3	26,250	25,000	4	95	1	0	0

946020563

Ret mail-order house	3	20,500	15,000	98	2	0	0	0
Whol misc profsn eqpt	3	11,000	7,500	100	0	0	0	0
Whol electronic parts	3	3,100	2,500	60	40	0	0	0
Whol durable goods	3	3,600	2,500	65	35	0	0	0
ort-trm busn credit	3	100	50	25	75	0	0	0
ol industrial suppl	2	17,500	10,000	100	0	0	0	0
Mfg plate work	2	5,500	5,000	9	46	0	45	0
Whol service paper	2	5,000	2,500	100	0	0	0	0
Data processing svcs	2	2,750	2,500	50	50	0	0	0
Misc equipment rental	2	750	500	50	50	0	0	0
Executive office	2	600	500	100	0	0	0	0
Mfg industrial gases	2	600	500	92	8	0	0	0
Mfg sanitary paper	1	2,000,000	2,000,000	50	50	0	0	0
Paper mill	1	100,000	100,000	100	0	0	0	0
Mfg pesticides	1	60,000	60,000	50	50	0	0	0
Whol plumb/hydronics	1	40,000	40,000	50	50	0	0	0
Misc business credit	1	35,000	35,000	100	0	0	0	0
Mfg sheet metalwork	1	30,000	30,000	0	100	0	0	0
Mfg refrig/heat equip	1	25,000	25,000	50	50	0	0	0
Books-print/publish	1	25,000	25,000	100	0	0	0	0
Detective/guard svcs	1	20,000	20,000	100	0	0	0	0
Help supply service	1	20,000	20,000	50	50	0	0	0
Whol chemicals	1	15,000	15,000	0	100	0	0	0
Ret-direct selling	1	15,000	15,000	100	0	0	0	0
Mfg process controls	1	15,000	15,000	100	0	0	0	0
Mfg computers	1	10,000	10,000	50	50	0	0	0
Mfg chemicals	1	10,000	10,000	100	0	0	0	0
gas production	1	7,500	7,500	100	0	0	0	0
Mfg inorganic chemcls	1	5,000	5,000	100	0	0	0	0
Mfg plastics/resins	1	5,000	5,000	100	0	0	0	0
Mfg valve/pipe fittng	1	2,500	2,500	100	0	0	0	0
Mfg crowns/closures	1	2,500	2,500	50	50	0	0	0
Whol computers/softwr	1	2,500	2,500	100	0	0	0	0
Whol furniture	1	2,500	2,500	100	0	0	0	0
Air courier service	1	1,000	1,000	100	0	0	0	0
Engineering services	1	1,000	1,000	50	0	50	0	0
Mfg electric test prd	1	1,000	1,000	100	0	0	0	0
Medical laboratory	1	1,000	1,000	50	50	0	0	0
Prepackaged software	1	1,000	1,000	50	50	0	0	0
Central Reserve Bank	1	1,000	1,000	100	0	0	0	0
Ret misc merchandise	1	1,000	1,000	50	50	0	0	0
Misc general gov't	1	750	750	100	0	0	0	0
Misc publishing	1	750	750	100	0	0	0	0
Coating/engrave svcs	1	500	500	0	100	0	0	0
Whol industrial equip	1	500	500	50	50	0	0	0
Management services	1	250	250	100	0	0	0	0
Radiotelephone commun	1	250	250	100	0	0	0	0
Regulate trnsprtation	1	250	250	100	0	0	0	0
Public finance	1	250	250	100	0	0	0	0
eral warehousing	1	250	250	100	0	0	0	0
surgical supplies	1	100	100	100	0	0	0	0
Mfg measure devices	1	100	100	100	0	0	0	0
Industrial launderer	1	100	100	100	0	0	0	0

946020564

Ret misc apparel	1	100	100	50	50	0	0	0
Whol office supplies	1	50	50	0	100	0	0	0

Other payment categories:

Cash experiences	0	0	0
ment record unknown	3	95,750	60,000
favorable comments	0	0	0

Placed for collections:

With D&B	0	0	0
Other	1	N/A	0
Total in D&B's file	139		2,000,000

The highest **Now Owes** on file is $2,000,000 The highest **Past Due** on file is $900,000

Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed. Indications of slowness can be result of dispute over merchandise, skipped invoices, etc.

PAYMENT DETAILS

Detailed payment history

Date Reported (mm/yy)	Paying Record	High Credit ($)	Now Owes ($)	Past Due ($)	Selling Terms	Last Sale Within (months)
02/06	Ppt	1,000	0	0	N30	4-5 mos
	Ppt-Slow 30	15,000	1,000	100	N30	1 mo
	Ppt-Slow 30	250	0	0	N30	1 mo
01/06	Ppt	25,000	0	0		6-12 mos
	Ppt	15,000	10,000	0	N60	1 mo
	Ppt	10,000	2,500	0	N30	1 mo
	Ppt	7,500	0	0		6-12 mos
	Ppt	5,000	500	0	N30	1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	2,500	0	0		1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	500	0	0	N30	2-3 mos
	Ppt	500	0	0		4-5 mos
	Ppt	250	250	0		1 mo
	Ppt-Slow 30	25,000	0	0	N30	6-12 mos
	Ppt-Slow 30	20,000	0	0		1 mo
	Ppt-Slow 30	10,000	5,000	0		1 mo
	Ppt-Slow 30	2,500	0	0		2-3 mos
	Ppt-Slow 30	500	500	0	N30	1 mo
	Ppt-Slow 60	20,000	250	100		1 mo
	Ppt-Slow 90	500	250	0		1 mo
	Slow 20	15,000	250	250	N30	1 mo
	Slow 30	30,000	0	0		6-12 mos
	Slow 30	250	0	0		6-12 mos
	Slow 30-60	750	500	500	N15	4-5 mos
	Slow 15-90	5,000	0	0		6-12 mos
	Slow 15-90	500	0	0		6-12 mos
	(028)	60,000	0			2-3 mos
12/05	Ppt	100,000	0	0	Regular terms	4-5 mos
	Ppt	35,000	2,500		Lease Agreemnt	
	Ppt	20,000	20,000	0		1 mo
	Ppt	10,000	0	0		2-3 mos

946020565

	Ppt	10,000	50	50	N30	2-3 mos
	Ppt	10,000	7,500	0	N30	1 mo
	Ppt	7,500	2,500	0	1 10 N30	1 mo
	Ppt	7,500	2,500	0	N30	1 mo
	Ppt	5,000	5,000	0		1 mo
	Ppt	5,000	5,000	0		1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	2,500	250	0	N30	1 mo
	Ppt	2,500	250	0	N30	1 mo
	Ppt	1,000	250	0		1 mo
	Ppt	1,000	0	0		6-12 mos
	Ppt	1,000	750	0		1 mo
	Ppt	1,000	50	0		1 mo
	Ppt	1,000	0	0		1 mo
	Ppt	1,000	0	0		4-5 mos
	Ppt	750	750	0		1 mo
	Ppt	500	0	0	1 10 N30	2-3 mos
	Ppt	500	0	0		1 mo
	Ppt	250	250	0		1 mo
	Ppt	100	0	0		4-5 mos
	Ppt	100	0	0		6-12 mos
	Ppt	100	50	0		1 mo
	Ppt	100	0	0		6-12 mos
	Ppt	100	0	0	Special Agreemnt	6-12 mos
	Ppt	50	0	0		6-12 mos
	Ppt	50	50	0		1 mo
	Ppt	0	0	0		6-12 mos
	Ppt-Slow 30	2,000,000	2,000,000	900,000		1 mo
	Ppt-Slow 30	60,000	25,000	0		1 mo
	Ppt-Slow 30	40,000	10,000	2,500		1 mo
	Ppt-Slow 30	30,000	0	0		6-12 mos
	Ppt-Slow 30	2,500	100	0		1 mo
	Ppt-Slow 30	2,500	1,000	0		1 mo
	Ppt-Slow 30	2,500	750	0		1 mo
	Ppt-Slow 30	2,500	0	0		1 mo
	Ppt-Slow 30	2,500	0	0		4-5 mos
	Ppt-Slow 30	1,000	0	0		6-12 mos
	Ppt-Slow 30	1,000	500	50	N30	1 mo
	Ppt-Slow 30	250	100	0		1 mo
	Ppt-Slow 30	100	100	50		1 mo
	Ppt-Slow 90	50,000	7,500	5,000		1 mo
	Slow 40	1,000	0	0		1 mo
	Slow 60	750	0	0		6-12 mos
	Slow 60	250	250	250		
	Slow 120	100	100	100		6-12 mos
11/05	Ppt	2,500	1,000	0		
10/05	Slow 30	50	0	0		6-12 mos
05/05	Slow 30	75,000	0	0		6-12 mos

Payment experiences reflect how bills are met in relation to the terms granted. In some instances payment beyond terms can be the result of disputes over merchandise, skipped invoices etc.

Each experience shown is from a separate supplier. Updated trade experiences replace those previously reported

946020566

Jump to:

Overview | Scores | Payments | History & Operations | Banking & Finance

Public Filings

PUBLIC FILINGS

The following data includes both open and closed filings found in D&B's database on the subject company.

Record Type	# of Records	Most Recent Filing Date
Bankruptcy Proceedings	0	-
Judgments	0	-
Liens	0	-
Suits	0	-
UCC's	2	02/07/2005

The following Public Filing data is for information purposes only and is not the official record. Certified copies can only be obtained from the official source.

UCC FILINGS

Collateral: Equipment - STORAGE FACILITY
Type: Original
Sec. party: AIR LIQUIDE INDUSTRIAL U S LP, HOUSTON, TX
Debtor: CRODA INC., MILL HALL, PA
Filing number: 5041439 2
Filed with: SECRETARY OF STATE/UCC DIVISION, DOVER, DE

Date filed: 02/07/2005
Latest Info Received: 03/02/2005

Collateral: Equipment
Type: Original
Sec. party: CAREY BOILER WORKS, INC., WILLIAMSPORT, PA
Debtor: CRODA INCORPORATED
Filing number: 2315429 5
Filed with: SECRETARY OF STATE/UCC DIVISION, DOVER, DE

Date filed: 12/02/2002
Latest Info Received: 01/27/2003

The public record items contained in this report may have been paid, terminated, vacated or released prior to the date this report was printed.

Jump to:

Overview | Scores | Payments | Public Filings | Banking & Finance

History & Operations

HISTORY

The following information was reported **11/11/2005**:

Officer(s): KEVIN GALLAGHER, PRES
GLENN NEWMAN, V PRES-SLS
STEPHEN FISH, CFO

DIRECTOR(S): THE OFFICER(S)

946020567

Business started 1950 by management of the parent company. 100% of capital stock is owned by the parent.

KEVIN GALLAGHER. Antecedents are undetermined.

NN NEWMAN. Antecedents are undetermined.

STEPHEN FISH. Antecedents are undetermined.

AFFILIATES:
Through its relationship with the parent company, this business is affiliated with numerous sister subsidiaries, engaged primarily in manufacturing specialty chemicals, industrial chemicals food, cosmetics and toiletries and surface coatings. Intercompany relations consist of occasional merchandise transactions and loans.

Business address has changed from 7 Century Dr, Parsippany, NJ, 07054 to 300-a Columbus Cir, Edison, NJ, 08837.

CORPORATE FAMILY

For more details on the Corporate Family, view the interactive global family tree

Buy Selected Report(s)

Parent:
Select business below to buy a Business Information Report.

Croda International Plc	Goole, England	DUNS # 21-240-8447

Branches (US):
Select companies below to buy Business Information Report(s).

Croda Inc	Fullerton, CA	DUNS # 10-666-5722
Croda Inc	Hartford, CT	DUNS # 03-022-3502
Croda Inc	Mill Hall, PA	DUNS # 09-422-9937
Croda Inc	Houston, TX	DUNS # 00-803-7348

Affiliates (US):*(Affiliated companies share the same parent company as this business.)*
Select businesses below to buy Comprehensive Report(s).

Croda Adhesives Inc	Arlington Heights, IL	DUNS # 02-470-9250

Affiliates (International):*(Affiliated companies share the same parent company as this business.)*
Select companies below to buy Business Information Report(s).

AG PROPERTY HOLDINGS PTY LIMITED	WETHERILL PARK, AUSTRALIA	DUNS # 75-652-4104
BROOKSTONE CHEMICALS LTD	LEEK, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-916-5909
COWICK HALL TRUSTEES LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 53-601-4442
CRODA ADHESIVES EUROPE NV	BRUSSEL, BELGIUM	DUNS # 28-288-1101
CRODA CHEMICALS (INDIA) PRIVATE LIMITED	MUMBAI, INDIA	DUNS # 91-844-3888
CRODA CHEMICALS INTERNATIONAL LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-004-1901
Croda Chemicals S A (Pty) Ltd	Jet Park, SOUTH AFRICA	DUNS # 64-480-1482
CRODA COSMETICS & TOILETRIES LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-824-8532
CRODA COSMETICS (EUROPE) LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 39-714-3918
CRODA DISTILLATES LTD	GOOLE, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-001-8263

946020568

CRODA FOOD SERVICES LTD	OLDHAM, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 22-756-9118
CRODA HOLDINGS FRANCE	TRAPPES, FRANCE	DUNS # 27-736-2000
CRODA JAPAN KK	HIGASHIOMI, JAPAN	DUNS # 69-065-1054
Croda Magyarorszag Kemiai Kereskedelmi Korlatolt Felelossegu Tarsasag	Budapest, HUNGARY	DUNS # 40-136-5523
CRODA OVERSEAS HOLDINGS LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 51-992-8840
CRODA POLAND SP Z O O	Krakow, POLAND	DUNS # 42-253-6065
CRODA POLYMERS (IRELAND) LTD.	DUBLIN, IRELAND	DUNS # 98-508-3898
CRODA POLYMERS INTERNATIONAL LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-405-3548
CRODA SINGAPORE PTE LTD	SINGAPORE, SINGAPORE	DUNS # 59-527-9530
CRODA TRUSTEES LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 29-348-0554
CRODA WORLD TRADERS LTD	GOOLE, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 21-030-1867
SOUTHERTON INVESTMENTS LTD	Goole, UK (ENGLAND, SCOTLAND, WALES, N.IRELAND)	DUNS # 22-231-9365

Buy Selected Report(s)

BUSINESS REGISTRATION

CORPORATE AND BUSINESS REGISTRATIONS PROVIDED BY MANAGEMENT OR OTHER SOURCE

The Corporate Details provided below may have been submitted by the management of the subject business and may not have been verified with the government agency which records such data.

istered Name: Croda Inc

Business type: CORPORATION
Corporation type: PROFIT
Date incorporated: NOV 10 1950
State of incorporation: DELAWARE

Common stock
Authorized shares: 100
Par value: NO PAR VALUE

Where filed: Secretary of State, Dover, DE

OPERATIONS

11/11/2005

Description: Foreign parent is Croda International plc, Goole, UK-England, started 1925, which operates as manufacturer of specialty chemicals, coatings, cosmetics and toiletries. Parent company owns 100% of capital stock. Has many other subsidiaries. Intercompany relations consist of periodic loans and advances and merchandise transactions, settled at the convenience of management. No guarantees or endorsements exist.

As noted, this company is a subsidiary of , DUNS number 212408447, and reference is made to that report for background information on the parent company and its management.

Manufactures chemicals or chemical preparations (100%).

Terms are net 30 days. Has 1100 account(s). Sells to personal care, pharmaceutical and industrial industries. Territory : United States (80%) & International (20%).

Nonseasonal.

Employees: 210 which includes officer(s). 75 employed here.

Facilities: 36,400 sq. ft. in a one story concrete block building.

946020569

Location: Industrial section on side street.

Branches: Maintains a manufacturing plant in Mill Hall, PA; a regional sales office in Miami, FL and a sales office and warehouse in Fullerton, CA.

SIC & NAICS

SIC:
Based on information in our file, D&B has assigned this company an extended 8-digit SIC. D&B's use of 8-digit SICs enables us to be more specific to a company's operations than if we use the standard 4-digit code.

The 4-digit SIC numbers link to the description on the Occupational Safety & Health Administration (OSHA) Web site. Links open in a new browser window.

28990000 Chemical preparations, nec

NAICS:
325998 All Other Miscellaneous Chemical Product and Preparation Manufacturing

---

Jump to:

Overview | Scores | Payments | Public Filings | History & Operations

Banking & Finance

KEY BUSINESS RATIOS

D&B has been unable to obtain sufficient financial information from this company to calculate business ratios. Our search of additional outside sources also found no information available on its financial performance. To help you in this instance, ratios for other firms in the same industry are provided below to support your analysis of this business.

Based on this number of establishments: 60

Industry Norms based on 60 establishments

	This Business	Industry Median	Industry Quartile
Profitability			
Return on Sales	UN	3.3	UN
Return on Net Worth	UN	17.0	UN
Short-Term Solvency			
Current Ratio	UN	2.1	UN
Quick Ratio	UN	1.3	UN
Efficiency			
Assets Sales	UN	49.2	UN
Sales / Net Working Capital	UN	6.0	UN
Utilization			
Total Liabs / Net Worth	UN	77.2	UN

UN = Unavailable

FINANCE

On NOV 11 2005 Joe Aguero, Controller, deferred all information.

CUSTOMER SERVICE

ou have questions about this report, please call our Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. If you are outside the U.S. contact your local D&B office.

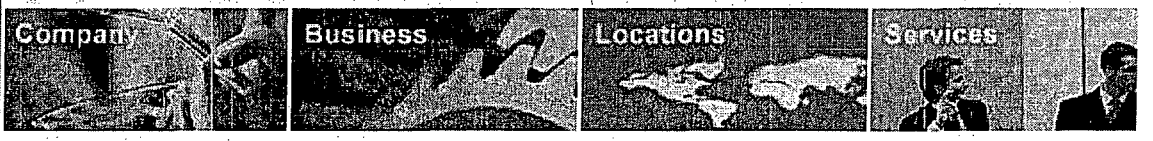
*** Additional Decision Support Available ***

Additional D&B products, monitoring services and specialized investigations are available to help you evaluate this company or its industry. Call Dun & Bradstreet's Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. or visit our website at www.dnb.com.

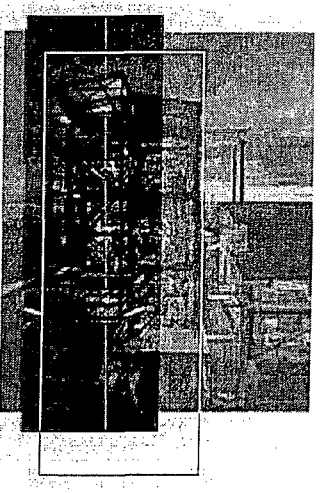
Copyright 2006 Dun & Bradstreet - Provided under contract for the exclusive use of subscriber 263725069L

946020571

946020572



Company overview



Croda. You won't find our name in the High Street. Croda products are sold mainly to industry, forming part of other people's products. For example, our **surfactants** help to create high quality cosmetic creams and lotions. Dietary supplements containing our **specialty lipids** can help to protect your health and even treat certain diseases. Our **fatty acid amides** add 'slip' to plastic surfaces, so plastic bags can be easily peeled apart. From foods to cars to cleaning wipes: the markets we serve are as diverse as industry itself.

Croda isn't a household name, but household names have made us successful. In 2004, our 1600 or so employees in 29 companies located in 25 countries achieved worldwide sales of almost £300m.

| Croda at a glance 2004

Turnover: £291.1m
Profit before tax: £45.2m
Sales by market:
- Personal and Health Care 61%
- Home Care and Plastics Additives 14%
- Industrial Specialties 19%
- Other 6%

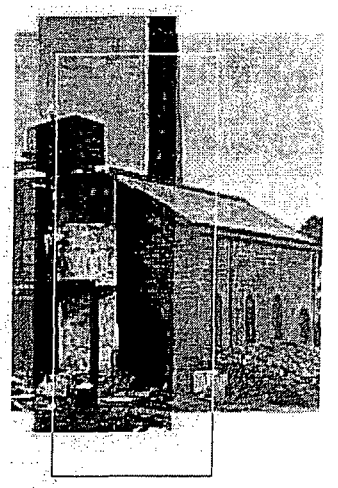
Headquarters: Cowick Hall, Yorkshire, England

946020573

© 2004-2006 Croda International Plc | Accessibility | Privacy policy

Company overview
Company policies
Management team
Corporate governance
Company history
Interactive timeline
Technology
Manufacturing
Research
Safety & environmental
Investor centre
Careers
Press centre

Company history



Croda was formed in 1925 to make lanolin. Initially, trading was difficult, but a report from the National Physical Laboratory showed that lanolin is an effective rust preventive, opening up new markets. The war years led to collaboration with the Government to produce specialties such as camouflage creams and gun cleaning oils, but post war, many markets disappeared.

In the 1950s, Croda set up operations in the US and Italy, whilst a merger with Leek based C M Keyworth spearheaded a period of steady organic growth. During the 1960s, Croda grew rapidly by acquisition, notably United Premier Oil and British Glues. Croda became a public company.

The 1970s and '80s brought further growth, but an abortive takeover bid by Burmah Oil made Croda re-think its strategy of being a diversified conglomerate, to focus on its core specialty chemicals business. This has continued, developing new products, improving manufacturing facilities worldwide, and focusing on key global markets particularly personal care, health care, home care and plastics additives.

| **Interactive timeline**
View our story so far..using our interactive timeline

© 2004-2006 Croda International Plc | Accessibility | Privacy policy

1925

Croda was founded at Rawcliffe Bridge in Yorkshire by Mr Crowe and Mr Dawe to make lanolin, the refined form of wool grease. Dawe's nephew, A P (Phillip) Wood was appointed manager.

In October, the first order – three barrels of lanolin – left the factory by horse and cart for Rawcliffe station.

1930

Trading was difficult, but fortune smiled when a report from the National Physical Laboratory showed that lanolin is an effective rust preventive, opening up new markets, notably engineering and the developing automotive industry.

1931

Croda's first profitable year.

1939

The outbreak of war led to collaboration with the Government to produce a variety of wartime specialties including hydraulic oils, camouflage creams and insect repellent – over six million tins!

1945

Edgar Lower, who had joined the company in 1932 as a 14-year-old to help in the laboratory, became Croda's first Technical Director. particular interest was the use of lanolin as a natural ingredient in cosmetics.

1946

Headquarters moved to a former vicarage in Snaith.

1949

The end of the war meant that many of Croda's markets had disappeared. To compound problems, A P Wood died at the age of 46. The future looked bleak. Croda opted for a committee in charge, with Fred Wood, the son of A P Wood, appointed Sales Director at the age of 23.

1950

Aware of the potential of the US market, Fred Wood went to New York to set up an office – the foundations of Croda Inc.

1953

In the 1950s many leading cosmetic companies began to incorporate Croda products into their formulations.

1954

Croda's first major merger with C M Keyworth of Leek, a supplier of fatty acid esters, spearheaded a period of steady organic growth.

George Crowe died and was succeeded as Chairman by his brother, Sir Edward.

1955

Headquarters transferred to Cowick Hall, a beautiful but neglected mansion, which was formerly the country seat of Viscount Downe.

Croda Italiana was formed at Mortara.

1957

Croda Inc, USA purchased the lanolin business of Hummel Chemical Company, transferring production to a newly constructed plant at Newark, NJ.

1960

Following the death of Sir Edward Crowe, Fred Wood became Chairman as well as Managing Director.

Croda GmbH was established near Düsseldorf, Germany.

1964

Croda became a public company.

Croda Nippon was formed in Japan as a joint venture with Sansho Oil and Fat Trading.

1967

Croda decided to expand by acquisition, with its first target the United Premier Oil Company, a long established oil seed crushing/refining company. Its subsidiary, the Universal Oil Company, manufactured fatty acids – the basic material of the oleochemical industries.

1968

British Glues and Chemicals was acquired - one of the two major UK gelatin producers. This was followed by Bowmans Chemicals, a manufacturer of food acids and specialised chemicals for metal finishing.

Croda Canada and Croda Australia were formed.

1970

Croda bought L&H Holdings, two factories at Hull and Barking which modified vegetable oils for use in paints and inks. This was followed A B Fleming, a collection of companies making printing inks and synthetic resins.

1971

Croda South Africa and Croda Zimbabwe were formed.

1974

Croda France and Croda Brazil were formed. Croda was truly international.

1975

Croda celebrated its 50th anniversary. Profits had risen from £12000 pa in 1950 to £12 million, with worldwide sales of £128 million.

Growth continued via strategic acquisitions, notably Midland Yorkshire Holdings, (synthetic chemicals and tar products), and Kenneth Thelwall, (blended oils and greases).

1977

airman Fred Wood received a knighthood.

A joint venture company was formed in Mexico, Quimica Croda SA.

1980

Record interest rates and the strength of sterling led to the collapse of UK manufacturing output. This was Croda's most difficult year since going public.

1982

Croda successfully fought off takeover bid by Burmah Oil. As a result, its strategy changed from being a diversified conglomerate to sticking with businesses it knew best.

1986

Sir Frederick Wood retired as Chairman. He was succeeded by Mike Cannon, formerly head of US operations, with Keith Hopkins as Group Chief Executive.

Croda Singapore was formed.

1988

A major £9 million project began to modernise and expand the Rawcliffe Bridge factory.

Croda bought the Chemicals division of John Kerr & Co, a company which made fire fighting foams and powders.

1989

Mike Cannon retired as Chairman, to be succeeded by Michael Valentine, a merchant banker from Warburgs who had advised Croda on many major acquisitions.

1990

The new factory at Rawcliffe Bridge came on stream. The Group focused increasingly on its core specialty chemicals business, with major capital investment programmes in the UK, USA, Singapore and Japan.

Croda Universal developed Lorenzo's Oil for the treatment of a young boy with ALD (adrenoleukodystrophy) – a story which was made into a blockbuster Hollywood movie.

1991

Croda bought Novarom, a German company specialising in plant extracts.

1993

Croda Hong Kong was formed, followed by Croda Nordica (Sweden) and Croda Poland (1994), Croda India (1995), Croda Shanghai (China) and Czech Republic (1996) and Hungary (1997).

1997

Croda bought the STOA group, whose principal subsidiary, Sederma, is a world leader in active ingredients for skin care.

1998

The acquisition of the Westbrook lanolin business made Croda the world's largest lanolin manufacturer.

Croda Ibérica was formed in Spain.

1999

Keith Hopkins was appointed Chairman, succeeding Michael Valentine on his retirement. Mike Humphrey, who had progressed from management trainee in 1969 to heading up the successful Oleochemicals business in 1995, was appointed Group Chief Executive.

Croda Argentina was formed.

2000

Croda celebrated its 75th anniversary.

ew $50 million specialty chemicals complex was opened in Singapore – Croda's largest ever single investment and one of world's most advanced chemical complexes.

Croda Korea was formed.

2001

Keith Hopkins retired as Chairman, and was succeeded by Antony Beevor, a Non-executive Director of Croda and a Senior Advisor in the London corporate finance division of Société Générale.

2002

Croda Brazil launched Crodamazon, a range of oils derived from the 'Fruits of the Amazon Rainforest', which involved working in an environmentally friendly manner with local communities living alongside the banks of the Amazon. A factory was established in Manaus, located in the heart of the Rainforest, to refine the oils.

2003

da Thailand was formed in Bangkok.

Croda Chemicals Europe was formed to improve the focus on the group's main markets, notably Health Care and Personal Care, which continue to show steady growth worldwide.

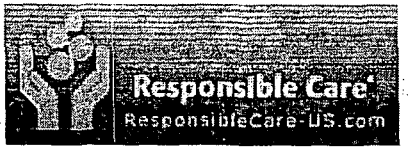
Croda today is a focused specialty chemicals company, selling an exciting range of naturally derived products, made in some of the most technologically advanced factories in the world.

946020584

CRODA

Corporate Profile

A proud Member of
Responsible Care



Privacy Policy
Croda Inc Terms and Conditions
Sederma Inc Terms and Conditions

Croda Inc is a US division of Croda International Plc, a manufacturer and supplier of natural-based specialty chemicals to Personal Care, Pharmaceutical, Household, and Industrial markets. Please click the following link to reach the Croda International website and learn more about our parent company and reach links to other divisions of Croda International

Croda Inc was founded in 1950 by the son of A.P Wood, a founding partner of Croda International. Like the parent organization, Croda Inc is the product of a series of acquisitions and mergers. In 1957, Croda purchased the lanolin business of the Hummel Chemical Company, renaming it Hummel Lanolin Corporation. In 1965 the company purchased the Bald Eagle Corporation in Lock Haven, PA. This provided Croda Inc with the Mill Hall, PA production site and the capacity to ethoxylate and manufacture fatty chemicals and specialty emulsifiers. In 1976 the Mill Hall facility expanded with the start-up of Croda-Carson, a joint venture which later became Croda Surfactants. This moved the company into surfactant technology other than nonionics. In 1987 the separate divisions were merged and Croda Inc became one entity with its corporate offices based in New York City. During this same time, manufacturing was consolidated to the Mill Hall plant and our North American Technical Center (NATC) in Edison, NJ was established. In May of 2004, Croda relocated both NATC and US Headquarters to a new site in Edison, NJ.

Today, Croda adheres to an aggressive program of creative product development that couples technology with functionality. This goes hand in hand with our commitment to build a strong sense of partnership with our customers. We make it a priority to provide our customers with raw materials that are mild, non-irritating, and naturally renewable. NATC is equipped with synthesis and analytical capabilities matching those in production. Our Applications Laboratory provides sample formulations, formulating assistance and a wide

946020585

range of performance testing. It is an integral part of the technical support we offer our customers.

In the Personal Care Industry, Croda is considered a forerunner in introducing novel ingredients, new product concepts, and innovative technology. We are recognized as leaders in the development of quaternary ammonium compounds and emollient esters and devote a substantial portion of our research to characterizing their behavior and mechanism of action. We employ state-of-the-art technology in the production of these specialty ingredients and hold a number of patents on the two chemistries. Croda is the Industry's choice for novel proteins and derivatives and was one of the first raw material manufacturers to offer proteins of plant or vegetable origin. Croda's Phybiotex products have brought science and nature together by using microwave technology to maximize the active components in plant materials. Croda is known for the innovation of its Ethnic hair care ingredients and has been recognized for its contributions to relaxer technology and the development of new manufacturing techniques. Croda received the AHBAI Industry Hall of Fame Award as Top Manufacturing Support Vendor from the American Health and Beauty Aids Institute.

As a supplier to the Pharmaceutical Industry, Croda offers a wide range of compendial ingredients and excipients, including high purity lipids and triglycerides, for use in oral, parenteral (injectables), and topical dosage forms. Our Super Refining technology is a proprietary purification process that uses flash chromatography to produce high purity, water-white triglyceride oils for pharmaceutical use.

Croda services a wide range of household and industrial applications that include fabric softeners, textiles, metalworking, leather treating, hard surface cleaners, explosives, lubricants, printing inks and agrochemicals.

946020586

CRODA

Contact Us

You are welcome to contact us by e-mail, post, fax, or phone - We're happy to hear from you! Also be sure to check out the FAQ section above.

Edison, NJ	**Croda Inc** 300-A Columbus Circle Edison, NJ 08837	**Phone:** 732-417-0800 **Fax:** 732-417-0804 **E-Mail:** Marketing@Crodausa.com
Mill Hall, PA	**Croda Mill Hall** 8 Croda Way Mill Hall, PA 17751	**Phone:** 570-748-7796
Miami, FL	**Croda Oleochemicals Miami** 200 South Park Road Suite 303 Hollywood, Florida 33021	**Phone:** 888-842-7632 **Fax:** 954 989 8186
Fullerton, CA	**Croda West** 385 South Acacia Avenue Fullerton, CA 92831	**Phone:** 714-526-1162 **Fax:** 714-526-0637
Beech Creek, PA	**Croda Mill Hall Warehouse Shipping Point** 107 Industrial Park Rd. Beech Creek, PA 16822	

ORDER SAMPLES **Prefered Method:** **Phone:** 732-417-0800 x4201

946020587

Do it here at Crodausa.com

PLACE ORDERS

Croda Customer Care

Phone: 888-252-7632
Fax: 570-748-5526

946020588

Preliminary results announcement 2005

Croda announces its preliminary results for the year ended 31 December 2005

Highlights

	2005	2004	
Sales for continuing operations	**£305.6m**	£280.9m	+ 8.8%
Pre-tax profit for continuing operations	**£49.2m**	£43.1m	+ 14.2%
Earnings per share – continuing operations	**24.7p**	21.2p	+ 16.5%
Earnings per share – basic	**25.6p**	23.3p	+ 9.9%
Dividend per share	**13.35p**	12.5p	+ 6.8%

- Record pre-tax profit of £49.2m, up over 14%
- Sales for continuing operations up by almost 9%
- Consumer Care operating margin in excess of 21%
- Final dividend increased by over 7% to 9p per share
- Ongoing demand good and product pipeline strong

Commenting on the results, Chairman, Martin Flower, said:

"This has been an excellent year for the Group and continues to vindicate the strategy we are following. Overall pre-tax profits on continuing operations were up over 14% at £49.2m on sales almost 9% ahead at £305.6m. The early signs are that the firm demand witnessed in 2005 has continued into the New Year and we remain confident of delivering further profitable growth in 2006."

946020589

946020590

x-rates.com

advertising

THE EURO

1.17	1.19	1.21	
December 05	January 06	February 06	March 06

PROFIT FROM THE TREND.

Menu

- Currency Calculator
- Custom Table
- Historic Lookup
- Currency Photos
- Home

FXCM

News & Quotes

- Executable Quotes
- Forex Market News
- Currency Forecasts

Currency Trading

- Why Trade Currency?
- What Moves Rates?
- How to get started?
- The $300 Mini Acct
- Free Practice Acct

Services

- Currency Trading Course

More Links

- Euro Information
- Bookmark help
- Frequent questions
- Feedback
- Developers
- Advertising FAQ
- Advertise here

533,974,475 USD

convert

British Pound

into

American Dollar

amount

305600000

Calculate

Quick Bar

from to

invert

March 01, 2006

graph the past history of these two currencies
popup a simple math calculator
see a value in all currencies

Currency

- American Dollar
- Argentine Peso
- Australian Dollar
- Botswana Pula
- Brazilian Real
- British Pound
- Canadian Dollar
- Chilean Peso
- Chinese Yuan
- Colombian Peso
- Danish Krone
- Euro
- Hong Kong Dollar
- Hungarian Forint
- Iceland Krona
- Indian Rupee
- Iranian Rial
- Israeli New Shekel
- Japanese Yen
- Malaysian Ringgit
- Mexican Peso
- Nepalese Rupee
- New Zealand Dollar
- Norwegian Kroner
- Omani Rial
- Pakistan Rupee
- Qatari Rial
- Saudi Riyal
- Singapore Dollar
- Slovenian Tolar
- South African Rand
- South Korean Won
- Sri Lanka Rupee
- Swedish Krona
- Swiss Franc
- Taiwan Dollar
- Thai Baht
- Venezuelan Bolivar

946020591

. Terms of Service

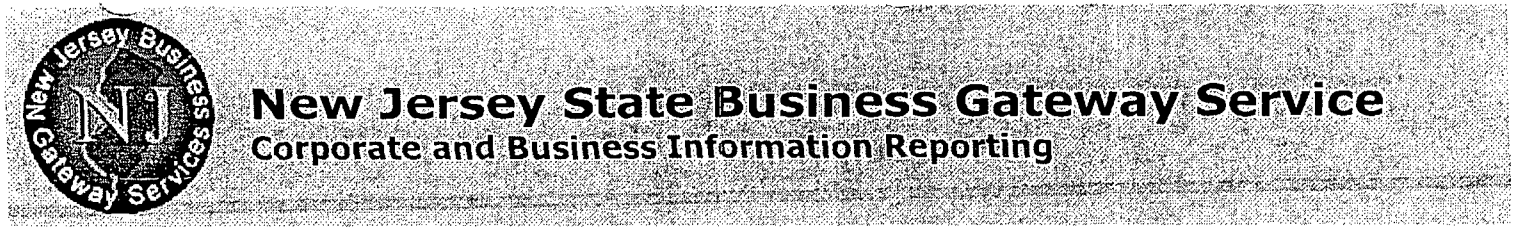
advertise on this site
read our privacy policy

© 2004 x-rates.com, all rights reserved
Terms of Use, Copyright and Disclaimer

we like feedback
our answers to frequently asked questions

946020592

946020593



Business Entity Status Report

Printing Instructions: Open your Browser's Page Setup menu and set your page margins to 0.25". Use your Browser's Print option to print the report as seen on screen.

Saving Instructions: Save this file to your hard drive for later viewing by using the Browser's "Save As" function.

All available information is displayed.

Status Report For: HUMMEL LANOLIN CORPORATION (FORMERLY HUMMEL LANOLIN U.S.A., IN

Business Name: HUMMEL LANOLIN CORPORATION (FORMERLY HUMMEL LANOLIN U.S.A., IN

Report Date: 02/22/2006

Business ID Number: 4835689000

Transaction Number: Sequence: 863813: 4

Business Type: FOREIGN PROFIT CORPORATION

Status: MERGED

Filing Date: 06/15/1961

Home Jurisdiction: NY

Status Change Date: 12/04/1989

Stock Amount: 0

DOR Suspension Start Date:

DOR Suspension End Date:

Tax Suspension Start Date:

Tax Suspension End Date:

Annual Report Month: 4

Last Annual Report Filed:

For Last Annual Report Paid Year:

Incorporator:

Agent: CORPORATION TRUST COMPANY

Agent Address: 820 BEAR TAVERN ROAD

946020594

TRENTON, NJ 08628 - 0000

Office Address Status: Deliverable

Main Business Address:

Principal Business Address:

Associated Names

Name: **Type Description:**

Exit | Return to Main List | < Previous | Next >

**If you would like to receive photocopies of documents filed by this business entity, mail your request to PO Box 450, Trenton, NJ 08625. Indicate the Business Entity Number(s) involved and the type of document you wish to have copies of. Your choices are listed below:

CHARTER DOCUMENTS

Original Certificate Only (For example, Certificate of Incorporation);

Changes and Amendments to the Original Certificate Only; **OR**

All Charter Documents (Original Certificate and Changes/Amendments)

And/or

ANNUAL REPORTS

Copy of Latest Annual Report; **OR**

Copy of Annual Report for a Specific Year(s) (List the Year Desired)

The photocopy fee for all entities except limited liability companies is $1 per page. For limited liability companies, the fee is $10 for the first page and $2 per page thereafter.

The total fee amount for your order will vary depending on the number of pages associated with each filed document you request. You may supply us with a check with a NOT TO EXCEED instruction to cover the costs. Make the check payable to the Treasurer, State of New Jersey. Alternately, you may pay by credit card (provide card#/expiration date and cardholder information) or depository account. Please include a self-addressed envelope with your order. If you have any questions or would like information on alternative service options such as over-the-counter expedited service, call 609-292-9292 (option 3 on the main menu and then option 8), weekdays, 8:30 a.m. to 4:30 p.m.

Privacy Policy

946020595

946020596

New Jersey State Business Gateway Service

Corporate and Business Information Reporting

Business Entity Status Report

Printing Instructions: Open your Browser's Page Setup menu and set your page margins to 0.25". Use your Browser's Print option to print the report as seen on screen.

Saving Instructions: Save this file to your hard drive for later viewing by using the Browser's "Save As" function.

All available information is displayed.

Status Report For: CRODA, INC.

Business Name: CRODA, INC.
Report Date: 02/22/2006
Business ID Number: 3322350000
Transaction Number: Sequence: 863815: 2

Business Type: FOREIGN PROFIT CORPORATION
Status: REINSTATED FOR TAXES

Filing Date: 02/15/1972
Home Jurisdiction: DE
Status Change Date:
Stock Amount: 0
DOR Suspension Start Date: 08/05/1995
DOR Suspension End Date: 02/06/1996
Tax Suspension Start Date:
Tax Suspension End Date:
Annual Report Month: 2
Last Annual Report Filed: 11/30/2005
For Last Annual Report Paid Year: 2004

Incorporator:
Agent: CRODA UNIVERSAL INC
Agent Address: 7 CENTURY DR
PARSIPPANY, NJ 07054 - 0000

946020597

Office Address Status: Deliverable
Main Business Address: 300A COLUMBUS CIRCLE
EDISON, NJ 08837
Principal Business Address: 7 CENTURY DRIVE
PARSIPPANY, NJ 07054

Associated Names

Name: **Type Description:**

Officers/Directors/Members

1) **Title:** VICE PRESIDENT
Name: NORMAN COHEN
Address: 41 UXBRIDGE ST
STATEN ISLAND, NY 10314

2) **Title:** PRESIDENT
Name: KEVIN GALLAGHER
Address: 37 GREEN TREE TERRACE
LINCROFT, NJ 07338

3) **Title:** VICE PRESIDENT
Name: GLENN NEWMAN
Address: 6 LAYNE ROAD
SOMERSET, NJ 08873

Exit | Return to Main List | < Previous | Next >

946020598

**If you would like to receive photocopies of documents filed by this business entity, mail your request to PO Box 450, Trenton, NJ 08625. Indicate the Business Entity Number(s) involved and the type of document you wish to have copies of. Your choices are listed below:

CHARTER DOCUMENTS
Original Certificate Only (For example, Certificate of Incorporation);

Changes and Amendments to the Original Certificate Only; **OR**

All Charter Documents (Original Certificate and Changes/Amendments)

And/or

ANNUAL REPORTS

Copy of Latest Annual Report; **OR**

Copy of Annual Report for a Specific Year(s) (List the Year Desired)

The photocopy fee for all entities except limited liability companies is $1 per page. For limited liability companies, the fee is $10 for the first page and $2 per page thereafter.

The total fee amount for your order will vary depending on the number of pages associated with each filed document you request. You may supply us with a check with a NOT TO EXCEED instruction to cover the costs. Make the check payable to the Treasurer, State of New Jersey. Alternately, you may pay by credit card (provide card#/expiration date and cardholder information) or depository account. Please include a self-addressed envelope with your order. If you have any questions or would like information on alternative service options such as over-the-counter expedited service, call 609-292-9292 (option 3 on the main menu and then option 8), weekdays, 8:30 a.m. to 4:30 p.m.

Privacy Policy

946020599

946020600

CERTIFICATE OF INCORPORATION

OF

HUMMEL LANOLIN U.S.A., INC.

Pursuant to Article Two of the Stock Corporation Law

* * * * * *

WE, THE UNDERSIGNED, desiring to form a stock corporation pursuant to the provisions of Article Two of the Stock Corporation Law of the State of New York, DO HEREBY CERTIFY as follows:

FIRST: The name of the proposed corporation is:

HUMMEL LANOLIN U.S.A., INC.

SECOND: The purposes for which it is to be formed are to do any and all of the things hereafter set forth to the same extent as natural persons might or could do in any part of the world, namely:

To develop, manufacture, compound, refine, process, produce, assemble, buy, lease or otherwise [illegible], experiment with, hold, own, use, store, [illegible], sell, lease or otherwise dispose of, and generally to trade and deal in and with any and all kinds of wool grease, lanolin oils, chemicals, [illegible], drugs, medicines, patent medicines, pharmaceuticals, medicinal and proprietary articles and [illegible], hospital and medical supplies, extracts, tinctures, cosmetics, [illegible], creams, soaps, perfumes, toilet articles, foods and foodstuffs, raw materials, natural [illegible] and synthetic articles and [illegible] and tangible [illegible] used or capable of [illegible] as well as the [illegible] derivatives [illegible] thereof, [illegible] of equipment, machinery, devices, [illegible], supplies, tools, implements,

apparatus, containers, cartons, tubes, cans, bottles, envelopes, boxes, bags, packages and other products and facilities used or capable of being used in connection therewith.

To carry on the business of general importers and exporters, and to carry on a general agency, jobbing, commission, factoring and brokerage business, both domestic and foreign.

To maintain, conduct, manage and carry on any kind of commercial, manufacturing and trading business or businesses; and to engage in research, experimental, laboratory, development, exploitation, exploration and sales work in connection with any or all of the foregoing businesses.

To build, erect, construct, purchase, lease or otherwise acquire, hold, own, provide, maintain, establish and operate, and to sell, lease, exchange or otherwise dispose of, mills, factories, laboratories, warehouses, agencies, buildings, structures, offices, works, depots and work shops, with suitable plants, engines, boilers, machinery and equipment, and all things of whatsoever kind and nature suitable, necessary, useful, convenient or advisable in connection with or conducive to, any or all of the objects herein set forth.

To acquire by purchase, exchange or otherwise, all, or any part of, or any interest in, the properties, assets, business and good-will of any one or more corporations, associations, partnerships, firms, syndicates or individuals, engaged in any business which this corporation is authorized to carry on, to pay for the same in cash, property or its own or other securities; to hold, operate, reorganize, liquidate, mortgage, pledge, sell, exchange, or in any manner dispose of the whole or any part thereof; and, in connection therewith, to assume or guarantee performance of any liabilities, obligations or contracts of corporations, associations, partnerships, firms, syndicates or individuals, and to conduct in any lawful manner the whole or any part of any business thus acquired.

To purchase, lease or otherwise acquire and to hold, own, maintain, manage, improve, rent, sell or

946020602

otherwise dispose of real and personal property of all kinds and in particular lands, buildings, shares of stock, mortgages, bonds, debentures and other securities, merchandise, book debts and claims and any interest in real or personal property.

To adopt, apply for, obtain, register, purchase, lease or otherwise acquire and to maintain, protect, hold, use, own, exercise, develop, manufacture under, operate and introduce, and to sell and grant licenses or other rights in respect of, assign or otherwise dispose of, turn to account, or in any manner deal with and contract with reference to, any trade-marks, trade names, patents, patent rights, concessions, franchises, designs, copyrights and distinctive marks and rights analogous thereto, and inventions, devices, improvements, processes, recipes, formulas and the like, including such thereof as may be covered by, used in connection with, or secured or received under, Letters Patent of the United States of America or elsewhere or otherwise, and any licenses in respect thereof and any or all rights connected therewith or appertaining thereto.

To borrow money for its corporate purposes, and to make, accept, endorse, execute and issue promissory notes, bills of exchange, bonds, debentures or other obligations from time to time, for the purchase of property, or for any purpose relating to the business of the company, and if deemed proper, to secure the payment of any such obligation by mortgage, pledge, deed of trust or otherwise.

To lend its uninvested funds from time to time to such extent, on such terms and on such security, if any, as the Board of Directors of the corporation may determine.

To sell, improve, manage, develop, lease, mortgage, dispose of or otherwise turn to account or deal with, all or any part of the property of the company.

To conduct its business in all or any of its branches, so far as permitted by law, in the State of New York and in other states of the United States of America, and in the territories and the District of Columbia, and in any or all dependencies, colonies or possessions of the United States of America, and in foreign countries; and for and in connection with such business, to hold, possess, purchase, lease, mortgage and convey real and personal property and to maintain

946020603

offices and agencies either within or without the State of New York.

To carry out all or any part of the foregoing objects as principal, factor, agent, broker, contractor or otherwise, either alone or in conjunction with any persons, firms, associations, corporations or others in any part of the world; and in carrying on its business and for the purpose of attaining or furthering any of its objects, to make and perform contracts of any kind and description, and to do anything and everything necessary, suitable, convenient or proper for the accomplishment of any of the purposes or the attainment of any one or more of the objects herein enumerated or incidental to the powers herein specified, or which shall at any time appear conducive to or expedient for the accomplishment of any of the purposes or the attainment of any of the objects hereinbefore enumerated.

Nothing herein contained shall be deemed to limit or exclude any power, right or privilege given to the corporation by law, or shall be construed to give the corporation any right, power or privilege not permitted by the laws of the State of New York to corporations organized under the Stock Corporation Law of the State of New York.

The foregoing clauses in this Article shall be construed as stating both purposes and powers. It is the intention that the purposes and powers specified in said clauses shall be in no wise limited or restricted by reference to or inference from the terms of any other clause of this or any other Article in this certificate, but that the purposes and powers specified in each of the clauses of this Article shall be regarded as independent and cumulative purposes and powers.

THIRD: (a) The total number of shares which may be issued by the corporation is one hundred (100), all of which are to be without par value.

(b) The capital of the corporation shall be at least equal to the sum of the aggregate par value of all issued shares having par value, plus the aggregate amount of consideration received by the corporation for the issuance of

shares without par value, plus such amounts as from time to time by resolution of the Board of Directors may be transferred thereto.

(c) The corporation may issue and may sell its authorized shares without par value whether now or hereafter authorized, from time to time, for such consideration as shall be the fair market value of such shares, and in the absence of fraud in the transaction, the judgment of the Board of Directors as to such value shall be conclusive, or in the absence of fraud in the transaction, for such consideration as from time to time may be fixed by the Board of Directors, or for such consideration as shall be consented to or approved by the holders of a majority of the shares entitled to vote at a meeting called in the manner prescribed by the By-Laws, provided the call for such meeting shall contain notice of such purpose, and any and all shares so issued shall be fully paid and non-assessable, and the holder of such shares shall not be liable to the corporation or to its creditors in respect thereto.

FOURTH: The Secretary of State of the State of New York is hereby designated as the agent of the corporation upon whom process in any action or proceeding against it may be served. The office of the corporation shall be located in the City of New York, County of New York, State of New York, and the address to which the Secretary of State shall mail a copy

of process in any action or proceeding against the corporation which may be served upon him is 15 East 26th Street, New York 10, N. Y.

FIFTH: The duration of the corporation is to be perpetual.

SIXTH: The number of directors is to be not less than three nor more than seven, who need not be stockholders.

SEVENTH: The names and post-office addresses of the directors until the first annual meeting of the stockholders, are as follows:

NAMES	POST-OFFICE ADDRESSES
Robert S. Greban	400 Madison Avenue, New York 17, N. Y.
Martin Novack	400 Madison Avenue, New York 17, N. Y.
Robert A. Chuck	400 Madison Avenue, New York 17, N. Y.

EIGHTH: The names and post-office addresses of the subscribers to this certificate and the number of shares of stock which each agrees to take are as follows:

NAMES	POST-OFFICE ADDRESSES	NO. OF SHARES
Robert S. Greban	400 Madison Avenue New York 17, N. Y.	1
Martin Novack	400 Madison Avenue New York 17, N. Y.	1
Robert A. Chuck	400 Madison Avenue New York 17, N. Y.	1

NINTH: All of the subscribers of this Certificate of Incorporation are of full age, at least two-thirds of them are citizens of the United States of America and at least one of

946020606

them is a resident of the State of New York. At least one of the persons named as a director is a citizen of the United States of America and a resident of the State of New York.

TENTH: The following provisions are inserted for the regulation and conduct of the affairs of the corporation and it is expressly provided that they are intended to be in furtherance and not in limitation or exclusion of the powers conferred by statute:

(a) Meetings of the stockholders and directors of the corporation for all purposes may be held at its office or elsewhere in the State of New York, and meetings of the directors may be held outside of the State of New York at such place or places as may from time to time be designated in the By-laws, or by resolution of the Board of Directors.

(b) All corporate powers except those which by law expressly require the consent of the stockholders shall be exercised by the Board of Directors.

(c) The Board of Directors shall have power from time to time to fix and determine and vary the amount of the working capital of the corporation and to direct and determine the use and disposition of any surplus or net profits over and above its capital, and in its discretion the Board of Directors may use and apply any such surplus or accumulated profits in purchasing or acquiring bonds or other obligations of the corporation or shares of its own capital stock, to such extent

and in such manner and upon such terms as the Board of Directors shall deem expedient, but any shares of such capital stock so purchased or acquired may be resold unless such shares shall have been retired in the manner provided by law for the purpose of decreasing the corporation's capital.

(d) Any one or more or all of the directors may be removed for or without cause, at any time, by the vote of the stockholders holding a majority of the stock of the corporation entitled to vote, at any special meeting, and thereupon the term of each director or directors who shall have been so removed shall forthwith terminate, and there shall be a vacancy or vacancies in the Board of Directors to be filled as provided in the By-Laws.

(e) No contract or other transaction between the corporation and any other corporation shall be affected or invalidated by the fact that any one or more of the directors of this corporation is or are interested in, or is a director or officer, or are directors or officers of such other corporation, and any director or directors, individually or jointly, may be a party or parties to or may be interested in any contract or transaction of this corporation or in which this corporation is interested; and no contract, act or transaction of this corporation with any persons, firms or corporations, shall be affected or invalidated by the fact that any director

or directors of this corporation is a party, or are parties, to or interested in such contract, act or transaction, or in any way connected with such persons, firms or corporations, and each and every person who may become a director of this corporation is hereby relieved from any liability that might otherwise exist from contracting with the corporation for the benefit of himself or any firm or corporation in which he may be in any wise interested.

(f) Subject always to By-Laws by the stockholders the Board of Directors may make By-Laws and from time to time may alter, amend or repeal any By-Laws, but any By-Laws made by the Board of Directors may be altered or repealed by the stockholders.

IN WITNESS WHEREOF, we have made, signed and acknowledged this Certificate of Incorporation this day of February, 1961.

Robert S. Graham (L.S.)
ROBERT S. GRAHAM

Melvin Novick (L.S.)
MELVIN NOVICK

Robert A. Chuck (L.S.)
ROBERT A. CHUCK

946020609

STATE OF NEW YORK)
) ss:
COUNTY OF NEW YORK)

On this 9th day of February, 1961, before me personally came ROBERT S. GROBAN, MARTIN NOVACK and ROBERT A. CHUCK, to me known and known to me to be the individuals described in and who executed the foregoing certificate and they severally duly acknowledged to me that they executed the same.

CHARLOTTE A. ROSENBERG
Notary Public, State of New York
No. 31-6[illegible]
Qualified in New York County
Commission Expires March 30, 196[illegible]

946020610

The foregoing copy of the Articles of Incorporation of HUMMEL LANOLIN U.S.A., INC. is a copy of the Articles as filed with the Secretary of State of the State of New York on February 21, 1961.

IN ATTESTATION WHEREOF, I have affixed my hand and the corporate seal of this corporation this day of June, 1961.

Martin Novack

Martin Novack, Secretary

(Seal)

946020611

CERTIFICATE OF INCORPORATION

OF

HUMMEL LANOLIN U.S.A., INC.

Pursuant to Article Two of the Stock Corporation Law

946020612

State of New Jersey

Department of State.

I, the Secretary of State of the State of New Jersey, do hereby Certify that

HUMMEL LANOLIN U.S.A., INC.

a Corporation organized under the laws of the State of NEW YORK has complied with all the requirements of Title 14: Chapter 15. "Foreign Corporations" of the Revised Statutes of New Jersey, and that the business of said corporation to be carried on within the State of New Jersey is such as may be lawfully carried on by corporations incorporated under the laws of this State for similar business.

In Testimony Whereof, I have hereunto set my hand and affixed my Official Seal at Trenton, this Fifteenth day of June A.D. 19 61.

946020613

STATEMENT
BY

HUMMEL LANOLIN U. S. A., INC.

The Company above named, a corporation organized under the laws of the State of New York, does hereby, pursuant to the provisions of Section 14:15-3 of the Revised Statutes of New Jersey, and the acts amendatory thereof and supplemental thereto, make the following statement and designation:

First. The total amount of the authorized Capital stock of said corporation is

Par value	Without par value	
$	100	Shares
$		"
$		"

The amount actually issued is

Par value	Without par value	
$	100	Shares
$		"
$		"

Second. The character of the business which the said corporation is to transact in the State of New Jersey is Dealing in and with woolgrease, lanolin, chemicals and oils.

and as provided in its certificate of incorporation, a copy of which, attested by its President and Secretary under its corporate seal, is hereto affixed as part hereof.

Third. The principal office in New Jersey is at No. 15 Exchange Place, Jersey City, and THE CORPORATION TRUST COMPANY is hereby designated as the agent upon whom process against this corporation may be served.

In Testimony Whereof, the said corporation hath caused its corporate seal to be hereto affixed, and these presents to be signed by its President and attested to by its Secretary, the 25th day of May, A. D. 1961.

(Seal) HUMMEL LANOLIN U. S. A., INC.

By J. W. Cannon President

Attest: Martin Novack Secretary

ANNUAL REPORT

HUMMEL LANOLIN U. S. A., INC.

organized under the laws of the State of New York

does hereby make the following report in compliance with the provisions of Section 14:6-2 of the Revised Statutes of New Jersey, and the various acts amendatory thereof and supplemental thereto:

First. The name of the Corporation is HUMMEL LANOLIN U. S. A., INC.

Second. The location of the registered office is at No. 15 Exchange Place, Jersey City, New Jersey, and THE CORPORATION TRUST COMPANY is the agent upon whom process against the corporation may be served.

Third. The character of the business is Dealing in and with woolgrease, lanolin, chemicals and oils.

and as otherwise specified in the certificate of incorporation.

Fourth. The amount of the authorized capital stock is

Par value	Without par value	
$	100	Shares
$		"
$		"

The amount actually issued and outstanding is

Par value	Without par value	
$	100	Shares
$		"
$		"

Fifth. The names of all the directors and officers and the time when the term of office of each expires are as follows:

Names of Directors and Officers	Expiration of Term
Director FREDERICK A.S. WOOD	Until successors are elected, and qualified.
" J. M. CANNON	
" ROBERT S. GROBAN	
"	
"	
"	
President, J. M. CANNON	Until successors are elected, and qualified.
Vice-President, JACK BUTSCHER	
Treasurer, J. M. CANNON	
Secretary, MARTIN NOVACK	

The Post office address of each of the foregoing directors and officers is No. 15 Exchange Place, Jersey City, New Jersey.

Sixth. The next annual meeting of the stockholders for the election of directors is appointed to be held on the 2nd Friday of November

In Witness Whereof, this report is signed in behalf of the corporation by J. M. CANNON, Pres., and MARTIN NOVACK, Secretary of the said corporation, this 25th day of May, 19 61

J. M. Cannon Pres.

Martin Novack

946020615

The undersigned, President and Secretary, respectively, of HUMMEL LANOLIN U. S. A., INC. ~~CORPORATION~~, Do HEREBY CERTIFY, that the annexed is a true and correct copy of the certificate of incorporation of the aforesaid corporation and the whole thereof.

In Attestation Whereof, we have affixed our hands and the corporate seal of the Corporation this 25 day of May, 19 61

(SEAL)

J. M. Canham, President

Martin Novack, Secretary

946020616

O.C. 25572

FOREIGN CORPORATION

STATEMENT BY

The HUMMEL LANOLIN U. S. A., INC.

of the State of

New York

Filed _____, 19__

Secretary of State

FILED and RECORDED
JUN 15 1961
Edward J. Patten
SECRETARY OF STATE

$110.00
8.00
$118.00

Cap Trustee
mgc
n Cahall
141269

NJ 73 1200 4-58

946020617

946020618

CERTIFICATE OF CHANGE OF NAME

OF

HUMMEL LANOLIN U.S.A., INC.

TO

HUMMEL LANOLIN CORPORATION

PURSUANT TO SECTION 40 OF THE GENERAL CORPORATION LAW.

* * * * *

The undersigned, being the owner and holder of all of the outstanding shares of HUMMEL LANOLIN U.S.A., INC. entitled to vote on a change of name of the corporation, hereby certifies:

1. The name of the corporation is

HUMMEL LANOLIN U.S.A., INC.

2. The certificate of incorporation of said corporation was filed in the office of the Department of State on the 21st day of February, 1961.

3. The new name to be assumed by the corporation is

HUMMEL LANOLIN CORPORATION.

IN WITNESS WHEREOF, CRODA, INC. has caused this certificate to be signed by its president under the corporate seal and attested by its secretary this 25th day of May, 1961.

(CORPORATE SEAL) CRODA, INC.

ATTEST: BY _____ President

_____ Secretary

290462

290462-1

946020619

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.

On this 25th day of May, 1961, before me personally came J. M. CANNON, to me known, who, being by me duly sworn, did depose and say that he resides at 15 E. 26th Street, New York, N. Y.; that he is president of CRODA, INC., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the board of directors of said corporation, and that he signed his name thereto by like order.

Myrna Ehrlich
Notary Public

MYRNA EHRLICH
NOTARY PUBLIC, State of New York
No. 41-6159333 - Queens County
Term Expires March 30, 1962

290462 -2-

946020620

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.

MARTIN NOVACK, being duly sworn, deposes and says that he is the secretary of HUMMEL LANOLIN U.S.A., INC. and that CRODA, INC. whose president subscribed the foregoing certificate of change of name of said corporation, constitutes the holder of record of all the outstanding shares of the corporation entitled to vote thereon.

Martin Novack
Secretary

Subscribed and sworn to before me
this 25th day of May, 1961.

Myrna Ehrlich
Notary Public

MYRNA EHRLICH
NOTARY PUBLIC, State of New York
No. 41-6159350 - Queens County

State of New York }
DEPARTMENT OF STATE } ss.:

16485

I CERTIFY That I have compared the preceding copy with the original Certificate of Change of Name of

HUMMEL LANOLIN U.S.A., INC.
to
HUMMEL LANOLIN CORPORATION,

filed in this department on the 9th day of October, 1961, and that such copy is a correct transcript therefrom and of the whole of such original.

[illegible] my hand and the official seal of the Department of State at the City of Albany, this ninth day of October, one thousand nine hundred sixty-one.

Caroline K. Simon
Secretary of State

By [illegible]
Deputy Secretary of State

Form 63 (Printed by the Department of State)

946020621

State of New Jersey

Department of State.

I, the Secretary of State of the State of New Jersey,

do hereby Certify that RUSSEL LANOLIN CORPORATION

(Formerly Russel Lanolin U.S.A., Inc.)

, a Corporation

organized under the laws of the State of New York

has complied with all the requirements of Title 14: Chapter 15, "Foreign Corporations" of the Revised Statutes of New Jersey, and that the business of said corporation to be carried on within the State of New Jersey is such as may be lawfully carried on by corporations incorporated under the laws of this State for similar business.

In Testimony Whereof, I have hereunto set my hand and affixed my Official Seal at Trenton, this Seventeenth day of October A.D. 1983.

946020622

(2) 2/21/61 NYCo 256052

255720.C.

FILED and RECORDED
OCT 17 1961
Edward J. Potter
SECRETARY OF STATE

290462

CERTIFICATE OF CHANGE OF NAME

OF

HUMMEL LANOLIN U.S.A., INC.

TO

HUMMEL LANOLIN CORPORATION

PURSUANT TO SECTION 40 OF THE GENERAL CORPORATION LAW

STATE OF NEW YORK
DEPARTMENT OF STATE
FILED OCT 9 - 1961
TAX $ None
FILING FEE $ 30

Caroline H. Simon
Secretary of State
By [signature]

S10/6 B 1/9

290462 - 2

$1.00
2.00
$2.00

GROBAN & RAVA
400 Madison Ave.
New York 17, N. Y.

m Cahill

152218

946020623

946020624

TWP

FILED

SEP 21 1989

JANE BURGIO
Secretary of State

0585926

STATEMENT OF ADDRESS

FOR RECEIPT OF SERVICE OF PROCESS

AGAINST

Hummel Lanolin Corporation

To: The Secretary of State

State of New Jersey

Pursuant to the provisions of Section 14A:13-9(1), Corporations, General, of the New Jersey Statutes, the undersigned corporation hereby designates the following post-office address, including zip code, to which the Secretary of State may mail a copy of any process against the undersigned corporation that may be served on him.

183 Madison Avenue, New York, New York 10016

Dated this 27th day of June, 1989.

Hummel Lanolin Corporation
Name of Corporation

By
Signature*

J. Michael Cannon, President
Print or Type Name and Title

*Must be executed by the President, Vice-President or Chairman of the Board.

(N.J. - 2046 - 3/20/85)

946020625

State of New York
DEPARTMENT OF STATE } ss.:

IT IS HEREBY CERTIFIED, *that* a Certificate of Merger of

HUMMEL LANOLIN CORPORATION
(a New York corporation)
with
CRODA, INC.
(a Delaware corporation)

was filed in this Department on the 1st day of September, 1989.

WITNESS *my hand and the official seal of the Department of State at the City of Albany, this* 11th *day of* September *one thousand nine hundred and* eighty-nine

Secretary of State

DOS-235 (Rev. 7/89)

946020626

13-921

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA, P. O. BOX 2807, TRENTON, N. J. 08625

ORDER

To: Hummel Lanolin Corporation
Corporation Trust Co., Registered Agent
28 West State Street
Trenton, New Jersey 08608

Re: N.J.A.C. 7:27- 8.3(a)&(b)
Plant Identification No. Not listed
Violation Occured on Premises Known As:
185 Foundry Street, Lot 6, Block 505, Newark City, Essex County, New Jersey

WHEREAS, the State Department of Environmental Protection has determined by investigation(s) or inspection(s) made pursuant to the Provisions of the New Jersey Air Pollution Control Act that on January 11, 1979 you did violate Title 7, Chapter 27, Subchapter 8, Section 8.3(a)&(b), of the New Jersey Administrative Code.

The investigation(s) discloses (a) that two additional tanks (permit states 8 tanks) were constructed, installed or altered on the premises identified above without first having obtained a "Permit to Construct, Install or Alter Control Apparatus or Equipment" from the Department.

and

(b) that two additional tanks (permit states 8 tanks) were used or caused to be used on the premises identified above without first having obtained a "Certificate to Operate Control Apparatus or Equipment" from the Department.

NOW THEREFORE, YOU ARE HEREBY ORDERED, to cease violation of said Subchapter on the premises owned, leased, operated or maintained by you on or before April 23, 1979

Dated: February 22, 1979

Edward J. Londres
Chief Enforcement Officer
Bureau of Air Pollution Control

cc: Local District Newark City
Field Office Newark

CERTIFIED MAIL

946020628

VAP001
Jul 76

FIELD OFFICE - ENFORCEMENT FILE

15922

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA P. O. BOX 2807 TRENTON, N. J. 08625

ORDER

05340

To Hummel Lanolin Corporation
Corporation Trust Co., Registered Agent
28 West State Street
Trenton, New Jersey 08608

Re: N.J.A.C. 7:27- 8.3(e)2
Plant Identification No. Not listed
Violation Occured on Premises Known As
185 Foundry Street, Lot 6, Block 505, Newark City, Essex County, New Jersey

WHEREAS, the State Department of Environmental Protection has determined by investigation(s) or inspection(s) made pursuant to the Provisions of the New Jersey Air Pollution Control Act that on January 11, 1979 you did violate Title 7, Chapter 27, Subchapter 8, Section 8.3(e)2 of the New Jersey Administrative Code.

The investigation(s) discloses the use of the drying and bleaching tanks without the carbon filter unit in use or functioning properly in accordance with Permit (P-9876) and certificate (CT-9876) on the premises identified above.

NOW, THEREFORE, YOU ARE HEREBY ORDERED, to cease violation of said Subchapter on the premises owned, leased, operated or maintained by you on or before March 9, 1979

Dated: February 22, 1979

Edward J. Londres
Edward J. Londres
Chief Enforcement Officer
Bureau of Air Pollution Control

cc: Local District Newark City
Field Office Newark

CERTIFIED MAIL

VAP001
Jul. 76

FIELD OFFICE - ENFORCEMENT FILE

946020630

Form DEQ-003

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL

#3

REPORT OF FIELD INVESTIGATION

DATE Aug 14, 1979 TIME _____ FILE # _____
REFERENCE TO CHAPTER _____

FULL BUSINESS NAME Hummel Lanolin Corp.

Location 185 Foundry Street, Newark
No. Street Municipality

Mailing Address _____
No. Street Post Office Zip Code

Person (s) Interviewed Mr. R. Markus - Permit Section
Title

- Evaluator -
Title

Comments _____

Report Requested by Ed Capano - Asst Supr. -
Title

Purpose of Investigation info for file

Observations On the above date, I confirmed the fact with Mr. Markus, that a new permit for the subject company has been issued and it already should be in their possession. The company did not regest an extension of their order due to the fact that another permit was issued # 43368

Conclusions Company in compliance w/ Order - 1/2/22/79

Recommendations file

Investigated by A. Bara
Signed
Prin. Env. Engr.
Title

946020632

Form DEQ-003

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL

43

REPORT OF FIELD INVESTIGATION

DATE 1/22/80 TIME _____ FILE # _____
REFERENCE TO CHAPTER _____

FULL BUSINESS NAME Hummel Lanolin Corp.

Location 185 Foundry St., Newark
No. Street Municipality

Mailing Address _____
No. Street Post Office Zip Code

Person (s) Interviewed Mr. Patel, CB Ph. Engr.
Title

Title

Comments _____

Report Requested by T. Leonard Super.
Title

Purpose of Investigation Determine status of fan & exhaust system

Observations At this time because of Money Shortage they have elected to hold back on their exhaust system. They have not made any changes in operation and no work has started.

Conclusions Co. In compliance w/ Ch. 8 - as of above date.

Recommendations follow-up ~ 6 mo

Investigated by A. Bare
Signed
Prin. Env. Engr.
Title

946020634