BUREAU OF WATER POLLUTION CONTROL

Inspection Report

Municipality: Town of Kearny

County: Hudson

Plant: Swift and Company
1215 Harrison Avenue
Kearny, New Jersey

Date Inspected: February 24, 1971

Date Written: February 25, 1971

Date Typed: February 26, 1971

Nature: Broken sewer contributing to pollution of Franks Creek, a tributary to the Passaic River.

By: Thomas Harding

Background

While performing routine surveillence of an industrial area of Kearny on February 24, 1971, the writer observed a brownish greasy material overflowing from a manhole on the Swift and Company property at 1215 Harrison Avenue, Kearny. This material had flowed down the bank of Franks Creek and was floating on the surface of the creek.

Findings

I met with Mr. F.E. Doe, Chief Engineer of Swift and Company and was informed that the sewer on the plant property had become plugged with grease from the Swift Geletan plant on the site.

The property is shared by three separate companies, Swift Geletan, Harrison By-Products, and Van Wagenen and Schickhaus (Swift Processed Meats Company). Swift Geletan has a "Pacific Separator" which is supposed to remove excessive grease and scum from the plant effluent before discharging into the Kearny sewer system for treatment at the Passaic Valley Sewage Commissioners plant in Newark.

The "Pacific Separator" broke down causing the grease to be discharged directly into the sewer system. The grease became trapped and blocked the sewer causing the pressure to rupture the sewer. The waste material flowed underground into an abandoned sewer which discharged into Franks Creek causing a heavy layer of grease to form on the surface. Visual inspection showed several inches of grease on the entire surface of the creek.

The company hired Cifelli Construction from Newark to dig up the sewer and replace the broken portion of the line. They also hired Fred Heyrich of Singack to clean out the sewer and remove the grease blocking the line.

Estimates of the time required to repair the break and clean up the creek were made by Mr. Doe to be in the area of two weeks.

February 8th, 1971

[illegible] inspections to determine what is being done to facilitate [illegible] to the problem.

Respectfully submitted,

Thomas F. Harding

Thomas F. Harding
Senior Public Health Engineer

6326:38

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 Broad Street
Newark, N. J. 07102

000002

Date: 3/31/72

Plant Ref. No. 1BH0910

# WASTE EFFLUENT SURVEY

**(For Industries Served by the Passaic Valley Sewerage Commissioners)**

Plant Name: SWIFT PROCESSED MEATS COMPANY

Address: 1215 HARRISON AVENUE, KEARNY, N.J. Zip 07032

Person and Title to whom any further inquiries should be directed:
FRANK E. DOE, CHIEF ENGINEER

Phone No.: 998-7100

Number of Employees: 275

Number of Working Days Per Week: ~~200~~ 5 days

Number of Shifts Per Day: One

Area of Property: 20 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: 2011

Finished Product(s): Processed Meats

Average Production: 17,000,000 lbs. per year

Raw Materials Used: Various cuts of uncooked meats

Brief Description of Operations: Receive raw meats to process into Franks, Bologna, Sausage, Cooked Hams, Sliced Bacon, etc.

Water received in *Gallons* (Note: multiply cu. ft. x 7.48)

Purchased water in 1971 from: .....

1st Quarter ..... 34,816,500

2nd Quarter ..... 36,037,500

3rd Quarter ..... 35,496,000

4th Quarter ..... 34,816,500

Total Purchased 1971: ..... 153,487,500 gal.

Well Water

1st Quarter ..... --

2nd Quarter ..... --

3rd Quarter ..... --

4th Quarter ..... --

Total well water received in 1971: .....

River Water

1st Quarter ..... --

2nd Quarter ..... --

3rd Quarter ..... --

4th Quarter ..... --

Total river water taken in in 1971: .....

TOTAL OF ALL WATER RECEIVED IN 1971: ..... 153,487,500

Water Use in 1971:

Water to Product (include evaporated and lost water): ..... 39,500,000 gal.*

Water to Sanitary Sewer: ..... 114,000,000 gal.

Water to Storm Sewer, River or Ditch: ..... None

TOTAL WATER USE IN 1971: ..... 153,487,500 gal.

Name of River, Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream, or tributary: ..... --

*Estimated.

✓

**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 treatmen if any. Indicate units of measure where applicable (e.g. Mg/l).

a) pH: 7.55 b) Turbidity: --

c) Temperature: 64°F d) Radioactive? Yes ..... No X

e) Solids Concentration:

1) Total Solids 2200 mg./Liter Volatile 540 mg/Liter Mineral 1660 mg/Liter

2) Suspended Solids 199 mg/Liter Volatile 193 mg/Liter Mineral 6 mg/Liter

f) Oil and Grease Concentration:

1) Floatable Oils )
) Total 83 mg/Liter
2) Emulsified Oils )

g) Chlorides as NaCL 1800 mg/Liter

h) Chemical Oxygen Demand (C.O.D.): -- Will furnish by 4/15/72

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.)

None Added

l) Toxic Material—Name and concentration e.g., cyanide salts, etc.): None Added

m) Solvents—Name and concentration: None Added

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics):

None Added

o) Date and time span of sample 2/28/72 - 1:30 P.M. Grab Sample

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.

Pass through primary treatment (catch basin) Continuous 24 hours (except Saturday and Sunday) with peak at 3 to 5 P.M.

NOT APPLICABLE

— — 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.

C.E.

Signature and title of person preparing report

SWIFT PROCESSED MEATS CO.

1215 HARRISON AVENUE • KEARNY, N. J.

N. J. TELEPHONE: 99[illegible]
N. Y. TELEPHONE: 962[illegible]

April 14, 1972.

Passaic Valley Sewerage Commissioners
790 Broad Street
Newark, N. J. 07102

Attn: Mr. Thomas Lazzio
Chairman

Gentlemen:

Pursuant to your letter of March 2, 1972 we furnished you our questionnaire within the time limit. We were unable to furnish at that time four items.

Refer to Page 3:

| | | | |
|---|---|---|---|
| Item b. | Turbidity | : | 210 units |
| h. | C.O.D. | : | 1784 ppm |
| i. | B.O.D. | : | 350 ppm |
| j. | T.O.C. | : | 115 ppm |

We would appreciate if you would include this data in our questionnaire.

Yours very truly,

SWIFT & COMPANY

F. E. Doe
Chief Engineer

FED:RB

ELDIB ENGINEERING AND RESEARCH, INC.

LABORATORIES AND OFFICES

409 BROAD STREET SUMMIT, N. J. 07901 TEL. (201) 277-3030

I. A. ELDIB, PH. D.
PRESIDENT
LICENSED PROFESSIONAL ENGINEER

# REPORT OF ANALYSIS OF WASTEWATER

Report No. WW-74-20

August 15, 1974

Client: Swift Processed Meats Co.
1215 Harrison Avenue
Kearny, New Jersey, 07032

| Parameter Tested | First Sampling 7/16/74 to 7/17/74 Milligrams per liter |
|---|---|
| Chloride | 940 |
| Ammonia nitrogen | 10.5 |
| Total solids | 2,642 |
| Total mineral solids | 1,623 |
| Total volatile solids | 1,019 |
| Suspended solids | 158 |
| Volatile suspended solids | 133 |
| Mineral suspended solids | 25 |
| 5-Day BOD | 558 |
| Chemical Oxygen Demand (COD) | 827 |
| Emulsified oils | 77.6 |
| Floatable oils | Not detected |
| Total Organic Carbon (TOC) | 233 |
| pH | 6.17 |
| Turbidity, units | 86 |
| Color (true) | 250 |

## Wastewater Flow Measurements

The measuring period started at 6:30 p.m., July 16, 1974, through all of July 17, July 18 and measurements ended at 3:30 p.m. on July 19, 1974.

Total measuring time: 71 3/4 hours

Average flow of wastewater: 197,015 gallons per day rate

Peak flows: a. 8:30 p.m. on 7/18/1974, 313,664 gallons per day rate
b. 11:30 p.m. on 7/16/1974, 4:30 - 5:30 p.m. on 7/18/1974, 293,428 gallons per day rate

Report of Analysis (cont.)
Swift Processed Meats Co.

August 15, 1974

| Parameter Tested | Second Sampling 5:00 p.m., 7/26/74 to 5:00 p.m., 7/27/74 Milligrams per liter |
|---|---|
| Chloride | 952 |
| Ammonia nitrogen | 15.3 |
| Total solids | 2,067 |
| Total mineral solids | 1,947 |
| Total volatile solids | 120 |
| Suspended solids | 152 |
| Volatile suspended solids | 102 |
| Mineral suspended solids | 50 |
| 5-Day BOD | 590 |
| Chemical oxygen demand (COD) | 833 |
| Emulsified oils | 358 |
| Floatable oils | Not detected |
| Total organic carbon (TOC) | 209 |
| pH | 6.49 |
| Turbidity, units | 100 |

| Toxic Materials | Milligrams per Liter |
|---|---|
| Nitrates | 0.62 |
| Nitrites | 1.18 |
| Phenols | < 0.10 |
| Cyanides (total) | 0.01 |

| Metal Ions | |
|---|---|
| Antimony | < 1 ND |
| Trivalent chromium | < 0.045 ND |
| Hexavalent Chromium | < 0.005 ND |
| Copper | 0.05 |
| Lead | < 0.10 ND |
| Mercury | < 0.05 ND |
| Nickel | < 0.05 ND |
| Vanadium | < 0.20 ND |

ND = Not detected

Respectfully submitted,

ELDIB Engineering & Research, Inc.

I. A. Eldib, Ph. D.
Licensed Professional Engineer

ATTACHMENT "A"

CLIENT: Swift Processed Meats Co.

ADDRESS: 1215 Harrison Ave., Kearny, N. J. 07032

ATTENTION: Mr. F. E. Doe, Chief Engineer

Sample(s) Taken by: ELDIB No. of Sample(s): 1

Date(s) of Sample(s) Taken: 3/20/75 - 3/21/75

Date(s) of Sample(s) Received: 3/21/75

RESULTS OF WASTE EFFLUENT SURVEY
FOR
VALLEY SEWERAGE COMMISSIONERS

Test: Toxic Material

| Toxic Material, mg/l | Test Result |
|---|---|
| Ammonia Nitrogen | Not detected/less than 0.01 mg/l |
| Nitrate Nitrogen | 0.05 mg/l |
| Nitrite Nitrogen | $4.1 \times 10^{-3}$ mg/l |
| Cyanides | less than 0.02 mg/l |
| Phenol | less than 0.01 mg/l |

ELDIB ENGINEERING & RESEARCH, INC.
Summit, New Jersey 07901
4/7/75

ATTACHMENT "B"

CLIENT: Swift Processed Meats Co.

ADDRESS: 1215 Harrison Ave., Kearny, N. J. 07032

ATTENTION: Mr. F. E. Doe, Chief Engineer

RESULTS OF WASTE EFFLUENT SURVEY FOR PASSAIC VALLEY SEWERAGE COMMISSIONERS

Wastewater Volume Flow Determinations
To Complete Item (O), page 3 of PVSC Questionnaire

Purpose: To measure the volume of wastewater in the local sanitary sewer from the above named industry, to report on: the average daily flow; on the volume at peak flow and the exact time of such peak flow.

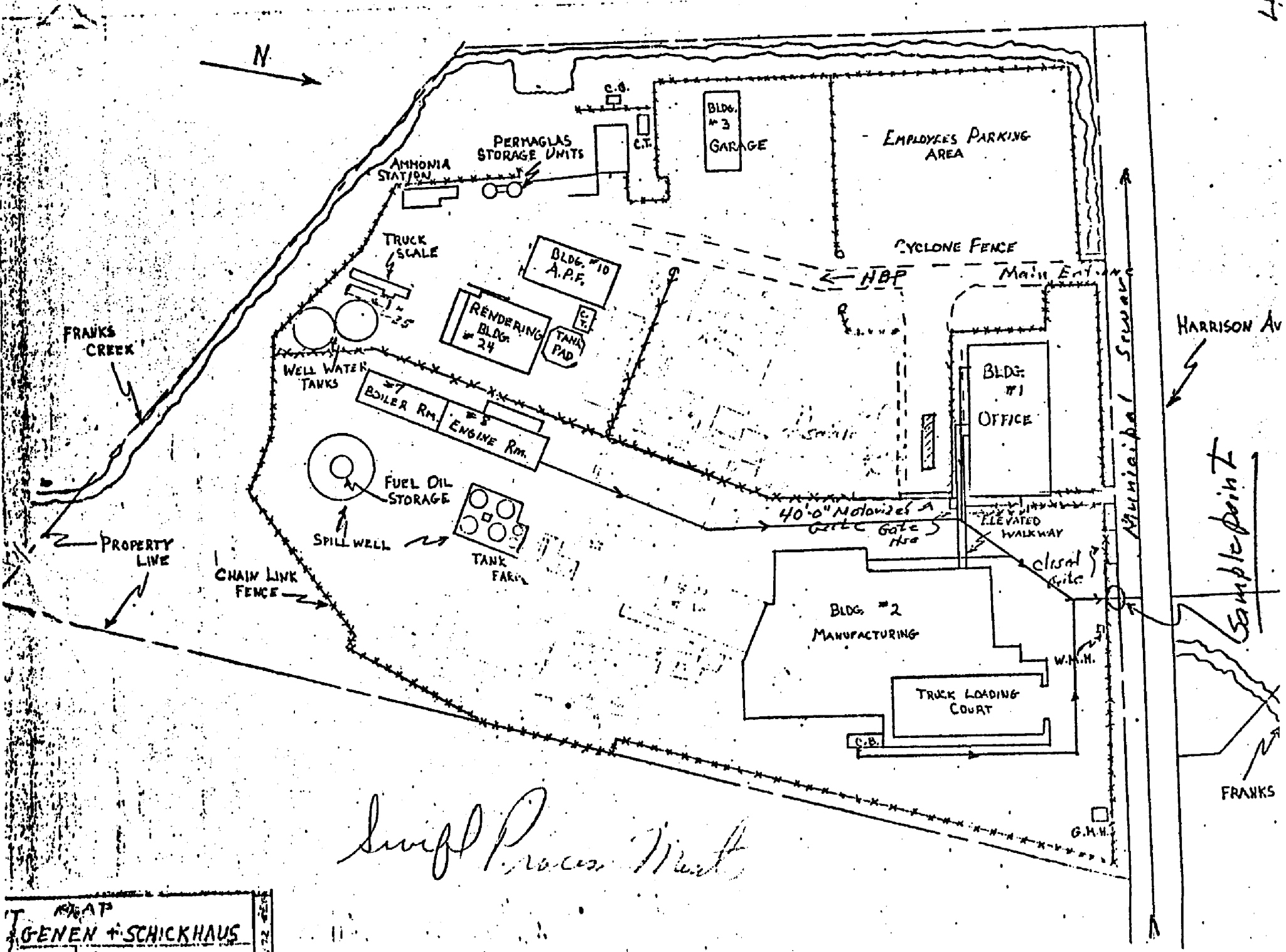
Methodology: The eighteen inch diameter pipe which transports this industrial discharge was cleaned and an electronic depth of flow recorder was temporarily installed to monitor the depth of flow in the discharge pipe. This meter recorded all changes in water level elevation during the period of measurements.

Results of Measurements:

| Date[a] March 1975 | DAILY AVERAGES | | PEAK FLOW | |
|---|---|---|---|---|
| | Gallons per day | M.G.D. (million gal. per day) | Peak Instances | M.G.D. (million gal. per day) |
| 18-19 | 450,000 | 0.45 | 1:15 A.M. | 0.75 |
| 19-20 | Heavy Rain[b] | -- | -- | -- |
| 20-21 | 570,000 | 0.57 | 9:05 P.M. | 0.97 |
| 21-22 | 480,000 | 0.48 | 9:40 P.M. | 0.85 |
| Overall Averages | 500,000 | 0.50 | -- | 0.856 |

(a) Time frame is approximately 9:00 A.M. to 9:00 A.M. on the following morning.
(b) Readings were not representative of actual conditions and are not included.

ELDIB ENGINEERING & RESEARCH, INC.
Summit, New Jersey 07901
4/7/75




Swift Process Plant

| | |
|---|---|
| PLAT | |
| GENEN + SCHICKHAUS | |
| 1"=160' | Revised by A.S.A. |