Saukville - D 24

TAM

August 11, 1967

9203 West Bluemound Road
Milwaukee, Wisconsin 53226

Mr. Russ Cerk,
Plant Manager
Freeman Chemical Corporation
Saukville, Wisconsin

Dear Mr. Cerk;

This letter is to confirm the meeting with Mr. Thomas Kroehn, Regional Engineer, in your office on August 10, 1967. This meeting was necessitated due to complaints of a discharge to the Milwaukee River from the storm sewer carrying your cooling water.

A copy of the results from the analysis by the State Laboratory of Hygiene is included. The analysis indicates the solvent involved is primarily xylene which you admitted was lost to the storm system, via some roof conductors, in the over-filling of a "weigh" tank.

The overflow from this tank must be changed to prevent a re-currence of a discharge of this type. Please inform this office of your plans for correction of this problem.

Sincerely,

James Wren-Jarvis
Regional Director
Region #2

JWJ:as
cc: Mr. Frank Hiber, Village President, Saukville
Mr. Al Wilkie, Conservation Warden
Mr. Len Montie, Waste Treatment Section, Madison

May 22, 1963

Mr. D. W. Heim
Director of Manufacturing
Freeman Chemical Corp.
P. O. Box 247
Port Washington, Wisconsin

Dear Mr. Heim:

We have received your letter dated May 7, 1963, setting forth your in-plant control program of wastes at your Saukville plant. It is hoped that continued use of these practices will prevent any future problems at the municipal sewage treatment plant.

Thank you for your cooperation and prompt attention.

Very truly yours,

COMMITTEE ON WATER POLLUTION

Floyd F. Stautz
Drainage Basin Engineer

JM
cc District 3
M. Doege, Vil. Clerk, Saukville
R. Miller, Saukville

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PORT WASHINGTON, WISCONSIN
TWX - 414 - 9419072

MANUFACTURING PLANTS AT
Saukville, Wisconsin
Ambridge, Pennsylvania

May 7, 1963
(Dictated May 3, 1963)

Committee on Water Pollution
The State of Wisconsin
State Office Building
Madison, Wisconsin

Attention: Mr. Floyd F. Stautz
Drainage Basin Engineer

Gentlemen:

In reply to your letter of April 19, 1963, we wish to inform you that the practices adopted in April 1962, are still in effect; namely:

1. The first fractions and still residues are trucked away for disposal.

2. Alkali floor cleaning wastes are pumped into a truck for disposal elsewhere. In addition, after being informed that the rinse raised the pH at the Saukville Disposal Plant, we are also picking up the first rinse and pumping it into the truck.

3. The seepage pit has been backfilled and is no longer in use.

4. The manhole catch basins are inspected Monday, Wednesday, and Fridays and pumped out if found to contain flammables.

5. We have instructed all personnel that we do not want anything other than water to go down the sewers. If there has been a spillage, they are to let us know so we can catch the spill at the manholes. To further prevent spillage, we have sewer plugs in the areas where this will most likely occur.

We appreciate the problems we have caused Mr. Miller in the past and are trying to prevent these occurrences. We know that it is troublesome to have to reculture the trickling filter beds and to decant the primary clarifier.

We are interested in stopping any materials from getting into the sewers but we have observed that there is no provisions at the sewage plant to prevent flammables lighter than water from entering the primary clarifier. This we think would be a necessary part of any sewage plant to collect accidental spills or material introduced into the sewers by unknowing citizens.

We have not intentionally discharged into the sewers noxious or flammable materials nor do we intend to do so. We will cooperate with Mr. Miller and the Village of Saukville in efforts to eliminate these problems.

Very truly yours,

FREEMAN CHEMICAL CORPORATION

D. W. Heim
Director of Manufacturing

DWH/kag

CC: Mr. Merle Doege
Village Clerk
Saukville, Wisconsin

Mr. Robert Miller
Superintendent Operator
Village of Saukville
Saukville, Wisconsin

April 19, 1963

Mr. D. W. Heim
Manager of Manufacturing
Freeman Chemical Corporation
211 E. Main Street
Port Washington, Wisconsin

Dear Mr. Heim:

Recently, Mr. Bob Miller, sewage treatment plant operator for the Village of Saukville, reported that flammable chemical wastes have been received at the sewage treatment plant from your company. These wastes cover the primary clarifier causing hazardous and nuisance conditions and also cause reduction in the treatment plant efficiency.

Mr. Miller stated that he contacted your company about these wastes; however, they continue to be received in varying amounts at the treatment plant.

The Wisconsin State Plumbing Code, Chapter H 62.04, paragraph 10(a), states that "No person shall connect to a public sewer any drains or sewer through which is discharged any obnoxious or odorous liquids, gas, tar, grease, rags or any other substance likely to cause an obstruction, nuisance, explosion or tend to interfere with sewage treatment processes."

It was understood that the Freeman Chemical Corporation plant in Saukville had adopted the following waste disposal practices in April of 1962:

(1) The first fractions and the still residue from distillation are barreled and trucked away to a private disposal area;

(2) Alkali floor cleaning wastes are pumped into a tank truck reserved for waste hauling. When the tank is full, the waste is hauled to a gravel pit for disposal;

(3) The seepage pit located on the plant property had been backfilled with earth and is no longer used. The water condensed in the reflux column vent containing some solvents is transported by tank truck to a gravel pit for disposal instead of being discharged into the seepage pit.

It was believed that these waste disposal practices would prevent any operating difficulties at the local sewage treatment plant, since all objectionable wastes were being hauled to land disposal sites. However, it appears

that recently some of these wastes are not being hauled as done in the past. It is, therefore, recommended that a study be made of the source of these recent wastes and the cause of their discharge to the sanitary sewer, and that they again be collected and hauled for disposal as was done in 1962.

Your cooperation in this matter will be greatly appreciated.

Very truly yours,

COMMITTEE ON WATER POLLUTION

Floyd F. Stautz
Drainage Basin Engineer

JM

cc District 3
L. A. Montie, Public Serv. Div.
Dr. W. Lea, Occupational Health Div.
Bob Miller, STP Operator, Saukville
Merle V. Doege, Vil. Clerk, Saukville

DEPARTMENTAL CORRESPONDENCE

To Mr. Oscar O. Egger
District Sanitary Engineer
District 3 - Fond du Lac

From William L. Lea, Ph.D., Director
Occupational Health Division
Madison 2, Wisconsin

Subject

Date April 18, 1962

Dear Mr. Egger:

On April 12, 1962, I discussed with management the liquid waste disposal problems associated with the chemical manufacturing operations carried on in the Freeman Chemical Corporation plant located in Saukville.

In the past the Village treatment plant has had trouble handling the Village domestic sewage containing solvent and alkali wastes from the chemical plant. In order to avoid further sewage treatment plant operating difficulties, the Freeman Chemical Corporation plant has made the following changes in their liquid waste disposal practices:

(1) from distillations the first fractions and the still residues are barreled and trucked away to a private disposal area;

(2) alkali floor cleaning wastes are pumped into a tank truck reserved for waste hauling. When the tank is full, the waste is hauled to a gravel pit for disposal;

(3) the seepage pit located on the plant property has been backfilled with earth and is no longer used. The water condensed in the reflux column vent, containing some solvents, is now transported by tank truck to a gravel pit for disposal instead of being discharged into the seepage pit.

These changes in waste disposal practices should prevent future operating difficulties in the local sewage treatment plant since all objectionable wastes are now being trucked to disposal sites.

Sincerely yours,

William L. Lea

William L. Lea, Ph.D.
Director

WLL:vs

cc - Sanitary Engineering

October 7, 1960

Mr. D. W. Hein
Manager of Manufacturing
Freeman Chemical Corporation
211 E. Main Street
Port Washington, Wisconsin

Dear Mr. Hein:

This will acknowledge our meeting of October 5, 1960 regarding the disposal of industrial wastes from the Saukville plant of the Freeman Chemical Corporation. Under separate cover I sent you the sample of wastes collected by Mr. Bob Miller from your plant for your examination and analyses. The sample had a pH of 10.6 and appears to contain a caustic waste. It is understood that caustic soda is used at times for the wash-up operations within the plant, and it is probable that this sample was collected following such a wash-up operation. Possibly a slug of such caustic received at the Saukville sewage treatment plant could kill off the growth on the trickling filter and upset the treatment process.

Catch basins are provided in the floor drains for the purpose of preventing accidental spills of concentrated wastes from reaching the sewer. It is recommended that these could be used to prevent the caustic wastes from clean-up operations from discharging to the sewers and that the caustic wastes then be hauled out for disposal. It is important that all concentrated chemical wastes be kept from the municipal sewage treatment plant to protect the treatment process from upsets.

Your cooperation in this matter will be appreciated.

Very truly yours,

COMMITTEE ON WATER POLLUTION
T. J. WISNIEWSKI, DIRECTOR

Floyd F. Stautz
Drainage Basin Engineer

jq
cc: Mr. Merle Sloege, Vil. Clerk, Saukville
Mr. Bob Miller, Sew. Treatment Plant Operator
District #3

March 7, 1958

Mr. Merle V. Doege
Village Clerk
Saukville, Wisconsin

Dear Mr. Doege:

On Tuesday, February 25, 1958, the writer stopped at the Freeman Chemical Corporation at Saukville to investigate their method of waste disposal.

The Freeman Chemical Corporation discharges all sanitary sewage to the municipal sanitary sewers for treatment. Process wastes within the plant, amounting to approximately 25 gallons per day, are disposed of by soil absorption in a dry well. The large volume of water used for condenser cooling water is discharged untreated through tile directly to the river. This water is essentially clear water and does not require treatment. It is believed that the present method of waste disposal from the Freeman Chemical Corporation satisfies the requirements of the Committee on Water Pollution.

Thank you for your concern in this matter.

Yours very truly,

COMMITTEE ON WATER POLLUTION
T. F. WISNIEWSKI, DIRECTOR

Floyd F. Stautz
Drainage Basin Engineer

LJ

October 24, 1955

On October 13, 1955, the writer contacted Mr. C. W. Gottschalk, Chief Chemist of the Freeman Chemical Company at Saukville, relative to the industrial wastes discharged from the plant. The plant produces varnish and discharges liquid industrial wastes to the Village of Saukville sewer system. These wastes consist of condenser water from separate type condensers and floor washings from the laboratory and plant. About 42 pounds of caustic soda are used each week in the washup operations. The washing operations are on no set schedule but take place as a batch is completed. All washup of kettles and reactors is salvaged.

Since 1951, the plant has added one 1,000 gallon reactor and several storage tanks. There has been no change in the process used.

The writer contacted Mrs. F. H. Boerner, 128 Crocker Avenue, Port Washington, relative to her reference to the industrial wastes from the Freeman Chemical Company. Mrs. Boerner stated that she had been told that the chemical company was discharging wastes to the stream along with the village. She had no information that would indicate that the company was discharging wastes other than those discharged previously.

Respectfully submitted,

Laurence A. Ernest

Laurence A. Ernest
Drainage Basin Engineer

LAE:JM

Ogauchee 5.

April 8, 1953

Saukville - Sewerage

On April 7, Mr. Woodman of Baxter & Woodman, inquired about the need for treatment of the wastes from the Freeman Chemical Company, Saukville. Information in the files indicated that those wastes which had an extremely high strength amounted to approximately 25 gallons per day and that arrangements were being made to hold and dispose of these wastes separate from the sewer system. The remaining wastes from this corporation appear to be satisfactory for inclusion in the city sewer system.

Respectfully submitted,

Harold N. Kingsbury
Associate Public Health Engineer

HNK:MB

cc - Lawrence Ernst
cc - District #3

TFW

SAUKVILLE - Industrial Waste

June 24, 1952

On June 18, 1952 the writer contacted Dr. Freeman of the Freeman Chemical Corporation, Saukville, regarding steps this concern had taken to comply with the recommendations of our report of March 26, 1952 concerned with the disposal of reactor condensate from the cookers at the Freeman Chemical Corporation.

Dr. Freeman expressed forcefully his disagreement with our findings and conclusions regarding the pollutional value of such reactor condensate, but did advise that such condensate amounting to approximately 25 gallons per day, was being now discharged to the ground surface rather than to the sewer as was recommended in our previously mentioned report.

In view of this concern's compliance with recommendations in removing the principal pollutional characteristic from their waste, it is believed that no order against this company is necessary as a portion of the order sequence on the Milwaukee River basin clean-up.

Respectfully submitted,

R. H. Scott

R. H. Scott
Associate Public Health Engineer

RHS:mbk
cc. Mr. Ernest

March 26, 1952

Mr. Alfred Jenkins
Secretary and Treasurer
Freeman Chemical Corporation
Saukville, Wisconsin

Dear Mr. Jenkins:

There is submitted herewith a copy of a report covering the method of waste disposal of your resin and varnish manufacturing plant at Saukville made on March 11-12, 1952.

The findings in the report indicate that the wastes discharged from the reactor during plant operations have a high chemical oxygen demand, are highly acidic, and contain considerable oil in suspension. The discharge of these wastes to municipal sanitary sewers may cause maintenance difficulties in existing sewers, and deter effective biological type treatment of sewage when a new sewage treatment plant is constructed.

It is believed essential that your company provide for adequate disposal of these wastes as outlined in the body of the report.

Kindly acknowledge receipt of this report and letter and inform this office of action taken by the company officials to carry out recommendations included in the report.

Very truly yours,

O. J. Muegge
State Sanitary Engineer

HSR:mbk

The State of Wisconsin

COMMITTEE ON WATER POLLUTION
(SEC. 144.51 — 144.57 STATUTES)

STATE OFFICE BUILDING

MADISON, WISCONSIN

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STATE BOARD OF HEALTH

O. J. MUEGGE
STATE SANITARY ENGINEER
STATE BOARD OF HEALTH

March 26, 1952

Mr. O. J. Muegge
State Sanitary Engineer
State Office Building
Madison 2, Wisconsin

Dear Mr. Muegge:

There is submitted herewith a report covering the method of waste disposal of a resin and varnish manufacturing plant made during the period March 11-12, 1952.

GENERAL INFORMATION

Owner:	Freeman Chemical Corporation Saukville, Wisconsin
Officials:	Mr. Stephen E. Freeman, President Mr. Donald Rhode, Vice President Mr. Alfred Jenkins, Secretary and Treasurer Mr. John Bell, Plant Superintendent
Raw Materials:	Thinner, vegetable oils, rosin, phthalic anhydride, glycerine, penta erythritol and other organic compounds.
Products:	Resin and varnish vehicles - 11,000 pounds per day
Wastes:	Process wastes include wastes from reactor, condenser cooling water, floor wash and sanitary sewage. Volume based on water consumption: 942,490 gallons per 3 months - maximum 735,390 gallons per 3 months - average 5,316 gallons per day during survey
Soil:	Kewaunee Poygan - red or gray brown clays and loams over red clay.
Stream:	Milwaukee River
Drainage Basin:	Milwaukee River No. 5
Location:	The plant is located in the southwestern limits of the Village of Saukville.

The investigation was made to determine the volume and characteristics of plant wastes discharged during plant operations.

It was determined at the time of the investigation that all process wastes and sanitary sewage resulting from operation of the Freeman Chemical Corporation were being discharged untreated to Saukville municipal sanitary sewers with final discharge of the wastes to the Milwaukee River. The wastes consist principally of condenser cooling water, floor washings, reactor distillate rejects, and sanitary sewage.

FINDINGS

In order to determine the volume and characteristics of plant wastes during operation of the reactor, samples of the distillate reject were obtained over the reaction period and composited for analyses. In addition, samples of combined wastes from the plant were obtained to determine the characteristics of plant wastes prior to their discharge to the sanitary sewer system.

A description of the samples taken during the survey and the results obtained from their analyses by the State Laboratory of Hygiene are as follows:

Sample No. 1 Working day composite of reactor distillate rejects

5-day B.O.D.	Unsatisfactory
Chemical Oxygen Demand	126,740 ppm
Chemical Oxygen Demand (liquid only)	95,700 "
Total Solids	48,160 "
Fixed	56 "
Volatile	48,104 "
Soluble Solids	45,703 "
Suspended Solids	2,457 "
Fixed	0.0 "
Volatile	2,457 "
Oil	170 "
pH	2.2
Temperature	> 60°C

Sample No. 2 Four hour composite of combined plant wastes

5-day Biochemical Oxygen Demand (B.O.D.)	34.3 ppm
Total Solids	378 "
Soluble Solids	359 "
Suspended Solids	19 "
pH	7.7
Temperature	16-18°C

DISCUSSION

The sample analyses show that the distillate rejected from the reactor has a Chemical Oxygen Demand (C.O.D.) of 126,740 parts per million (ppm). Based on an estimated waste volume of 25 g.p.d., it is estimated that 26.4 pounds of chemical oxygen demand are discharged daily during

plant operations. The waste is also highly acidic and contains considerable oil in suspension which may cause difficulties in the existing sewer system and subsequent biological type sewage treatment plant when such service is provided. Since there is only a small waste volume involved it is believed that the most effective, practical method of disposal for this waste is by discharging the waste to the ground in the vicinity of the plant for disposal by soil absorption. The area selected should be free from drainage to any water course or water carriage system. Later it may prove both practical and economical for the company to initiate recovery of certain constituents of the waste and thereby reduce the volume of wastes discharged from the plant.

The discharge of condenser cooling water to the sanitary sewer system, since it is essentially a clear water waste, may cause difficulty when sewage treatment facilities are provided. Clear water wastes are normally segregated from sanitary sewage and discharged to storm sewers or directly to the stream.

CONCLUSIONS AND RECOMMENDATIONS

It may be concluded from the information contained in the report that the discharge of untreated reactor distillate rejects from resin and varnish vehicle manufacture may cause detrimental effects on existing sewers and future biological type sewage treatment processes.

It is, therefore, recommended that officials of the Freeman Chemical Corporation provide for adequate disposal of reactor distillate rejects by discharging this waste to the ground in the vicinity of the plant for disposal by soil absorption.

Respectfully submitted,

Herbert S. Roth
Drainage Basin Engineer

HSR:mbk

APPROVED THIS 26th DAY OF March, 1952

Theodore F. Wisniewski

THEODORE F. WISNIEWSKI, DIRECTOR
DIVISION OF WATER POLLUTION CONTROL

cc. Secretary
Village Clerk, Saukville
Ernest
Roth

VEHICLES FOR THE
PROTECTIVE COATINGS
INDUSTRY

PHONE NEWBURG 1W

FREEMAN CHEMICAL CORPORATION

SAUKVILLE, WISCONSIN

February 14, 1952

Mr. T. F. Wisniewski, Director
State of Wisconsin
Committee on Water Polution
State Office Building
Madison, Wisconsin

Dear Mr. Wisniewski:

In view of the findings of your analyst on the sample taken from our plant, it is my opinion that at least a review of where and how the sample was taken should be made, If the sample was taken from one of the occasional five gallon pails of distillate which we have in a total amount of no more than five or six pails in twenty four hours, then the amount of material represented as going to the sewer can be grossly exaggerated. Our major discharge is composed of pure water used for cooling in the amount of about 2-3 gallons per minute in a steady stream.

The contamination of the concentrated distillate does not contain any added phenols nor can I imagine where such would derive from. It is possible that such materials as pentaerythritol might give a test for phenol in that the method used is probably a colorimetric one and can sometimes give false results. This possibility should be checked. To my knowledge traces of phthalic acid and the like are quite harmless in the quantity we are discharging them.

We were not present at the meeting because we did not consider there was the remotest possibility that we were causing any polution other than normal sewage from toilets.

Sincerely,

FREEMAN CHEMICAL CORPORATION

Stephen E. Freeman

Stephen E. Freeman
President

February 13, 1952

Mr. Stephen E. Freeman
President
Freeman Chemical Corporation
Saukville, Wisconsin

Dear Mr. Freeman:

On receipt of your letter of February 8, 1952 relative to wastes discharged from the Freeman Chemical Corporation to the Milwaukee River at Saukville, we checked analytical reports and find that a sample collected on December 17, 1951 contained phenol in the amount of 4.2 parts per million. The sample also had a low pH of 2.4 and was found to contain a powder which consisted mainly of phthalic acid.

It was on the basis of this finding that your company was listed as contributing to the pollution of the Milwaukee River. We were sorry to note that there was no representative of your company at the hearing held for the purpose of reviewing the report issued, but we will be happy to work with you in arriving at a solution to the problem of disposal of wastes from your plant if you so desire. Please let us know if you would like to have one of our engineers make a re-check at your plant in order to verify the information presented in your letter.

Yours very truly,

COMMITTEE ON WATER POLLUTION

Theodore F. Wisniewski
Director

TFW:LJ
cc DBE

Saukville - Ind. Waste

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PHONE NEWBURG 5W

FREEMAN CHEMICAL CORPORATION

SAUKVILLE, WISCONSIN

February 8, 1952

Mr. O. J. Muegge
State Sanitary Engineer
State Office Building
Madison 2, Wisconsin

Dear Mr. Muegge:

We have received a copy of the recent report on the stream polution of the Milwaukee River in which this company is cited as follows:

> Freeman Chemical Corporation discharges industrial wastes from the manufacture of varnish and resin to the Milwaukee River at Saukville. As the wastes produced are reportedly low in volume and contain as an undesireable ingredient a significant phenol concentration, such wastes should be disposed of by soil absorption.

This statement has resulted in considerable adverse publicity to us in the local papers. We feel that this is undesirable and unfortunate since we do not feel that we are guilty of discharging such wastes into the river.

We do not use phenol in our process and do not have any around the place. Our resins are not formulated with phenol. We occasionally use so-called phenolic resins prepared by others, which do not have any free phenols present, which we cook into oils. There is no waste product involved so that nothing from these preparations would be put into the sewer.

Our principle discharge to the sewer consists of water from our condenser. This water is derived from Saukville's public water supply and flows through our stainless steel condenser after which it is discharged to the sewer. The water is used solely for cooling purposes.

Sincerely,

FREEMAN CHEMICAL CORPORATION

Stephen E. Freeman

Stephen E. Freeman
President

12-17-
PH-2