

Poultry Processing Company, Waste Treatment Plant
Efficiency Study, September 14, 1973

March 13, 1973

LAS

Thomas W. Devine, Chief
Technical Operations Section

Enclosed are three copies of the report on the Waste Treatment Plant Efficiency Study for the Poultry Processing Company, Belfast, Maine, conducted on September 14, 1972 (two for your use and one for the State of Maine).

As stated in the report, the Poultry Processing Company is still in violation of their state discharge license, however the quality of the effluent has made a marked improvement since 1971.

Appendix B of this report is a copy of a memorandum which was sent to you on September 19, 1972. Included in this memorandum was a description of a sludge disposal lagoon system, which was being utilized by the Poultry Processing Company. The lagoons do not present a water pollution problem, however, discussions with local residents revealed that the lagoons present an aesthetic problem. Therefore, pending the issue of a discharge permit, I recommend that the company be contacted about their sludge disposal program. If at this time the lagoons have not been backfilled, the company should be advised to do so immediately.

Myron O. Knudson, Chief
Surveillance Branch

Enclosures

cc: E. V. Fitzpatrick

RA/kmb/3/13/73

WASTE TREATMENT PLANT EFFICIENCY STUDY

**POULTRY PROCESSING COMPANY
BELFAST, MAINE
SEPTEMBER 14, 1972**

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POULTRY PROCESSING COMPANY, BELFAST, MAINE, SEPTEMBER 14, 1972

At the request of the United States Environmental Protection Agency, Region I (EPA), Enforcement Division, the Surveillance and Analysis Division (S/A) evaluated the Poultry Processing Company's waste treatment plant and the quality of its effluent. Poultry Processing Company, dba Penobscot Poultry Company, is a poultry packing plant located in Belfast, Maine. The case against the company was closed by the U. S. Attorney on April 18, 1972, with the understanding that it could be reactivated if the constructed treatment plant produces an unsatisfactory effluent.

During a reconnaissance survey on August 17, 1972, Mr. Bruce Chandler treatment plant operator, conducted EPA personnel on a tour of the treatment plant and Mr. Herbert Hutchins, general manager of the Poultry Processing Company, granted permission to collect samples on September 14, 1972.

The liquid process waste from the poultry processing plant is no longer discharged raw to Belfast Bay. Prior to discharge, this waste passes through a series of screens and a flotation treatment process, which started operation during the spring of 1971.

The company's sanitary waste presently goes directly to Belfast Bay. On August 11, 1972, the Maine Department of Environmental Protection traced an unlicensed sanitary sewer to the Poultry Processing Company's plant. Mr. Hutchins was notified of the situation and ordered to connect to a municipal sewer immediately. As of September 14, 1972, this

this discharge had not been connected to a municipal sewer system. See Appendix A for a copy of this notification.

Processing Plant

The Poultry Processing Company processes and packages 70,000 to 100,000 birds per day into various types of poultry and poultry meat products. Figure 1 shows a schematic diagram of the processing plant.

The live birds are received in wooden crates, removed by hand, and hung by the feet on two parallel conveyor lines. The birds are then transported to the first stage of processing where they are killed, bled, scalded, and defeathered in the New York room. A USDA minimum overflow rate of one quart per bird per day from the scalders creates a large quantity of waste, which is very high in fats, feathers and some blood. A trough carries the waste from the New York room to the screen room where a rotary screen removes the feathers.

During evisceration, the next step of the process, the removed offal and viscera creates about one-third of the pollutional loading of the total process. The evisceration waste is carried by water down a 100 foot long flume to a second rotary screen. While in the flume, the water picks up large quantities of blood, grease, solids, and soluble materials.

Following evisceration, the birds are washed and chilled in a cold water bath, which has a USDA minimum overflow rate of two quarts per bird per day.

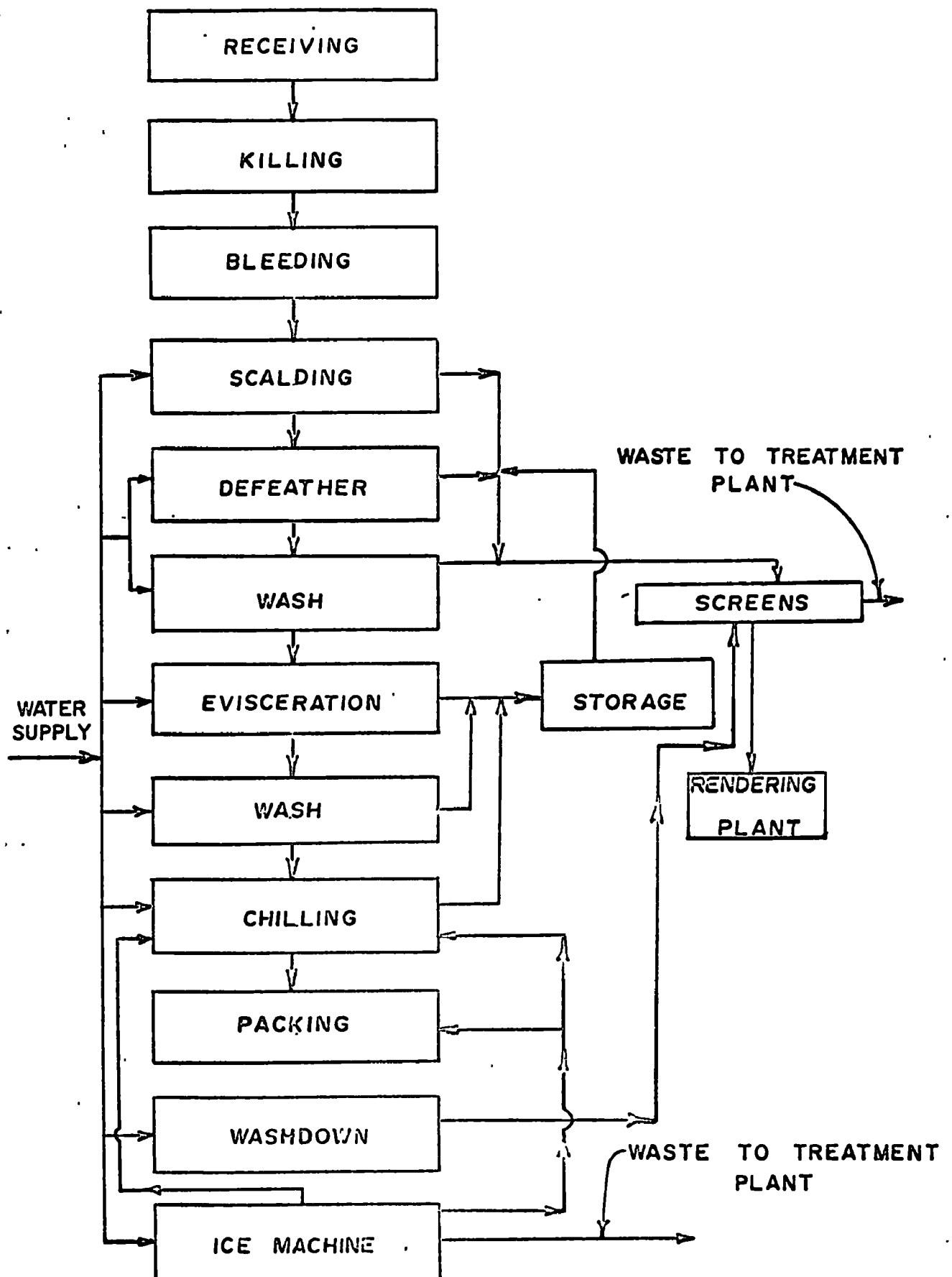


FIGURE 1
PROCESS FLOW DIAGRAM

At this point the birds are packed in ice or frozen for shipment or cooked and used in various poultry meat products.

At the end of the killing process, a nightly washdown begins. During this period, the processing lines are completely washed. The resulting waste water follows the same flow paths as the waste from the killing process.

On September 14, 1972, the killing process started at 0700 hours and ended at 1600 hours. Of the 74,600 birds processed, 45,000 were broilers (birds grown eight to nine weeks and having a live weight of approximately 3.5 pounds), 21,000 were roasters (slightly older birds than broilers and over four pounds), 4,000 were fowl (old egg-laying birds, generally over three years old), and 4,600 were capons (castrated roosters). The washdown operation started at 1600 hours and continued until 0500 hours on September 15, 1972.

Waste Treatment Plant

Poultry Processing Company's waste treatment plant is a flotation treatment system. Figure 2 shows a schematic diagram of the treatment process. As the evisceration waste enters the treatment plant, it passes through a 40-mesh rotary screen which removes offal, viscera and reject birds. A separate line carries the defeathering waste to a second rotary screen which removes the feathers. (See Appendix D for photographs of the screens). The screened solids and feathers are sent to the adjacent room where they are rendered into chicken feed.

Liquid wastes leaving the screen room combine in a fifty-foot long covered rectangular channel. Approximately half-way down the channel, alum and the polymer Cyanimid 836A are added. Alum and Cyanimid 836A are flocculants used to aid in the flotation of solids. An aluminum ladder, which acts as a baffle, has been placed inside the channel to insure proper mixing of the chemicals. From the rectangular channel, the waste enters a wet well which collects the waste and equalizes the flow to the flotation tank. In case of emergency, an overflow basin located adjacent to the wet well supplies approximately fifteen minutes of storage. Upon entering the flotation unit, the waste is retained in a center tank for approximately one and one-half minutes where flocculation occurs. Recycled clarified waste water (20% of the effluent from the flotation unit), saturated with air, is mixed with the flocculated waste water as it enters the bottom of the flotation unit. The waste and recycled water are detained for approximately twenty minutes. The float formed in the outer portion of the flotation tank is allowed to accumulate to approximately six inches before it is periodically removed by a rotating scraper. As of September 14, 1972, this sludge was pumped to a tank truck and shipped to a land disposal site which is described in Appendix B. Following the flotation unit is a chlorine contact chamber which provides a contact time of approximately one hour. The flotation tank and the chlorine contact chamber are cleaned manually every two weeks if needed. Exiting the contact chamber, the waste passes over a standard contracted rectangular weir and discharges through an old municipal sewer line and submerged outfall to Belfast Bay.

Sampling Information

On September 14, 1972, EPA personnel sampled the Poultry Processing Company's waste treatment plant. The Maplewood Poultry Company has a similar plant also located in Belfast, Maine. The Maplewood facility was sampled on September 13, 1972¹, for compliance with a consent decree between the Maplewood Poultry Company and the U. S. Government. In order to compare the two similar facilities, to be published in a separate report, sample collection and analysis was done in accordance with the Maplewood Poultry Company consent decree.

Five-day biochemical oxygen demand (BOD₅), total suspended solids and total coliform bacteria were determined by Standard Methods for the Examination of Water and Waste Water, Thirteenth Edition. Total oil and grease was determined by EPA Methods for Chemical Analyses of Water and Waste 1971.

On September 14, 1972, two four-hour composite samples of the treatment plant effluent were collected at the rectangular weir (PPOE). The first four-hour composite period represents the period from 0845 hours to 1245 hours and is typical of wastes during the killing process. Samples were collected every half hour starting at 0900 hours and ending at 1230 hours. The second four-hour composite period represents the period from 1745 hours to 2145 hours and is typical of wastes during the cleanup process. Samples were collected every half hour starting at 1800 hours and ending at 2130 hours. The composite samples consisted of eight grab samples collected at one-half hour intervals. These grab samples were placed in 3,000 milliliter glass jars with aluminum foil under the cover, tagged and iced immediately. At the end of each sampling period, the grab samples were composited

proportional to flow into a five-gallon glass container. The final composite samples were analyzed for BOD₅, total suspended solids, and oil and grease, and used to represent the total daily loading.

BOD₅ reduction through the treatment plant was determined by collecting a grab sample at the influent to the treatment plant (PPOI) and one hour later collecting a grab sample at the effluent (PPOE). This was done four times during both sampling periods. The BOD₅ concentration of the effluent was measured by grab samples taken at the effluent at one-hour intervals.

At one-half hour intervals during both sampling periods, eight grab samples were collected at the effluent rectangular weir (PPOE) and analyzed to indicate the suspended solids concentration of the effluent.

At one-half hour intervals during both sampling periods, five grab samples were collected at the effluent rectangular weir (PPOE) and analyzed to indicate the oil and grease concentration of the effluent.

At one-half hour intervals during both sampling periods, five grab samples were collected at the effluent rectangular weir (PPOE) and analyzed to indicate the coliform bacteria density of the effluent.

The chlorine residual in the effluent was measured with a chlorine comparator at one-half hour intervals during both sampling periods.

All samples at the treatment plant influent (PPOI) were collected using a galvanized steel bucket. The bucket was thoroughly rinsed with the waste before use. Samples were transferred from the bucket to plastic bottles. All samples collected at the treatment plant effluent (PPOE) were collected by hand dipping the appropriate sample container directly into the waste as it passed over the rectangular weir.

Following collection, EPA personnel transported the samples to the field laboratory and to the S/A laboratory for the appropriate analyses. EPA Region I chain-of-custody procedures were maintained at all times to insure the integrity of the samples.

Results

The results from the laboratory analyses can be found in Table 1. Table 2 compares the results from the July 27, 1971 survey², the state license requirements (See Appendix C for a copy of the State of Maine license), and the evaluated results of Table 1.

Since the continuous flow recorder was not operating properly on the sampling date, the head on the weir was measured each time a sample was collected. From the head readings, the calculated flow rates were averaged over the two separate four-hour composite periods. The average flow rates were 700 gpm during the kill period and 393 gpm during the cleanup period. On September 14, 1972, a total discharge of approximately 0.68 MGD occurred.

A comparison of sampling results from the 1971 survey and the 1972 survey shows a significant decrease in oil and grease, total suspended solids and total coliform bacteria. During the killing process, total suspended solids concentration decreased 93.8% (from 546 mg/l to 33.9 mg/l). During this same period, oil and grease concentrations decreased 89.8% (from 386 mg/l to 38.9 mg/l). During the cleanup period, total suspended solids concentrations showed a slight improvement and oil and grease concentrations remained fairly consistent. The total suspended solids and oil and grease total daily loadings have been decreased by approximately 66% and

55%, respectively. The total coliform bacteria has been decreased from a daily average of approximately 1.5 million in 1971 to 773 per 100 ml of sample in 1972, with the chlorine residual remaining fairly consistent. During both sampling surveys, the chlorine residual varied from 0.1 mg/l to 2.0 and 2.5 mg/l, with high coliform bacteria densities occurring simultaneously with low chlorine residuals. During the 1972 sampling, the coliform bacteria density remained at an acceptable level when the chlorine residual was maintained in the range of 1.5 mg/l or greater.

Since all BOD₅ analyses at Station PPOE are N values (presumptive evidence of presence of material) due to technical sampling difficulties, no comparison can be made.

These improvements in the effluent waste characteristics could be attributed to two changes within the treatment process. A series of baffles have been installed in the chlorine contact chamber to insure proper mixing and subsequently reduced the coliform bacteria density of effluent. However, during the 1972 sampling, 60% of the coliform analyses exceeded 100 per 100 ml of sample. The second change included the conversion of the flocculent soda ash to a polymer (Cyanimid 836A).

Summary and Conclusions

As was the case in 1971, the Poultry Processing Company waste treatment plant effluent violates the State of Maine "Waste Discharge License", issued on February 28, 1969. However, the quality of the effluent from the treatment plant has shown a marked improvement since the July 27, 1971 sampling. Total suspended solids and oil and grease total daily loadings have been decreased by approximately 66% and 55% respectively.

The total coliform bacteria has been decreased from a daily average of approximately 1.5 million in 1971 to 773 per 100 ml of sample in 1972. As discussed in the "Results" section of this report, other component concentrations have significantly decreased.

SAMPLE ANALYSES

ABBREVIATIONS AND UNITS OF MEASURE

<u>Analyses Reported</u>	<u>Description</u>	<u>Measured In</u>
Temperature	Sample temperature	Degrees centigrade (°C)
BOD 5-day	5-day biochemical oxygen demand, incubated at 20°C	Milligrams per/liter (mg/l)
Total coliforms	Total coliform bacteria density	Per 100 milliliters
Fecal coliforms	Fecal coliform bacteria density	Per 100 milliliters
Total nonfilterable residue	Total suspended solids	mg/l
Fixed nonfilterable residue	Inorganic suspended solids	mg/l
Chlorine residual		mg/l
Oil and grease	Hexane extractable	mg/l as oil and grease

Letters preceding a reported value denote the following:

K - Actual value is known to be less than value given.

L - Actual value is known to be greater than value given.

N - Presumptive evidence of presence of material.

R - Sample lost.

TABLE 1

ANALYTICAL DATA
POULTRY PROCESSING COMPANY, BELFAST, MAINE, SEPTEMBER 14, 1972

Station No.	Time (hrs.)	Lab. Code No.	Temp (°C)	Residue (mg/l)		BOD (mg/l)	Oil & Grease (mg/l)	Coliform Bacteria		Chlorine Residual (mg/l)
				Total Nflt.	Fixed Nflt.			Total	Fecal	
PPOE	0900	36034	20.3	47.6	R	-	-	4,900	110	0.1
	0930	36035	19.8	45.6	R	-	-	-	-	1.0
	1000	36037	20.0	35.3	R	N	55.7	350	k5	1.0
	1030	36038	19.5	34.6	R	-	50.9	-	-	1.0
	1100	36040	19.7	25.3	R	N	49.5	420	5	0.5
	1130	36041	19.8	20.7	R	-	46.7	-	-	1.0
	1200	36043	20.0	27.5	R	N	46.7	820	10	1.0
	1230	36044	20.0	24.4	R	-	-	-	-	0.25
	1300	36045	20.5	-	-	N	-	670	30	0.1
	*Comp	36032	-	33.9	R	N	38.9	-	-	-
PPOE	1800	36047	20.0	25.2	R	-	-	20	k5	1.0
	1830	36048	21.2	57.0	R	-	-	-	-	1.0
	1900	36050	22.5	96.0	R	N	51.9	530	10	0.5
	1930	36051	21.5	77.8	R	-	48.3	-	-	0.25
	2000	36053	21.5	67.4	R	N	39.1	k10	k5	1.5
	2030	36054	21.0	54.0	R	-	45.3	-	-	1.5
	2100	36056	21.0	40.2	R	N	37.0	10	k10	1.5
	2130	36057	21.0	105.3	59.3	-	-	-	-	2.5
	2200	36058	-	-	-	N	-	10	k10	2.5
	**Comp	36059	-	51.4	R	N	39.3	-	-	-
PPOI	0900	36033	20.5	-	-	900	-	-	-	-
	1000	36036	23.5	-	-	2250	-	-	-	-
	1100	36039	20.0	-	-	480	-	-	-	-
	1200	36042	20.0	-	-	230	-	-	-	-
PPOI	1800	36046	23.5	-	-	1750	-	-	-	-
	1900	36049	20.5	-	-	1000	-	-	-	-
	2000	36052	21.0	-	-	420	-	-	-	-
	2100	36055	21.0	-	-	N	-	-	-	-

*Composite of samples taken every half hour between the hours of 0900 and 1300 on 9/14/72.

**Composite of samples taken every half hour between the hours of 1800 and 2200 on 9/14/72.

COMPARISON OF 1971 and 1972 SAMPLING AND EIC LICENSE LIMITATIONS

POULTRY PROCESSING COMPANY, BELFAST, MAINE, SEPTEMBER 14, 1972

PARAMETERS	Poultry Processing Co. Discharge Characteristics 9/14/72			Poultry Processing Co. Discharge Characteristics 7/27 to 7/28/71			State of Maine License Limitations
	Max.	Min.	Avg.	Max.	Min.	Avg.	See Appendix C
I. Total Suspended Solids Concentration (mg/l)	86.9	23.0	48.8	546	118	333	No Limitation
Total Daily Loading (pounds/day)	-	-	238.4	-	-	1711	No Limitation
II. Floatable and Settleable solids	-	-	-	-	-	-	None
III. Oil and Grease Concentration (mg/l)	53.3	41.1	46.9	386	19.2	148.7	None
Total Daily Loading (pounds/day)	-	-	222	-	-	488	None
IV. Total Coliform Bacteria Density (total coliform/ 100 ml of sample)	4900	K10	773	12,000,000	200	11,500,000	100.0
V. Discoloration of receiving waters		None		-	-	-	None
VI. Five-day biochemical oxygen demand							
Total Daily Loading (pounds/day)	Data not available			-	-	816	500
Hourly Loading Rate (Pounds/day)	"	"	"				600

TABLE NO. 3

STATION LOCATION

POULTRY PROCESSING COMPANY, BELFAST, MAINE

STATION

DESCRIPTION

PPOI

Influent to the Poultry Processing Company
waste treatment plant, prior to chemical feed.

PPOE

Effluent from Poultry Processing Company
waste treatment plant, at the rectangular weir.

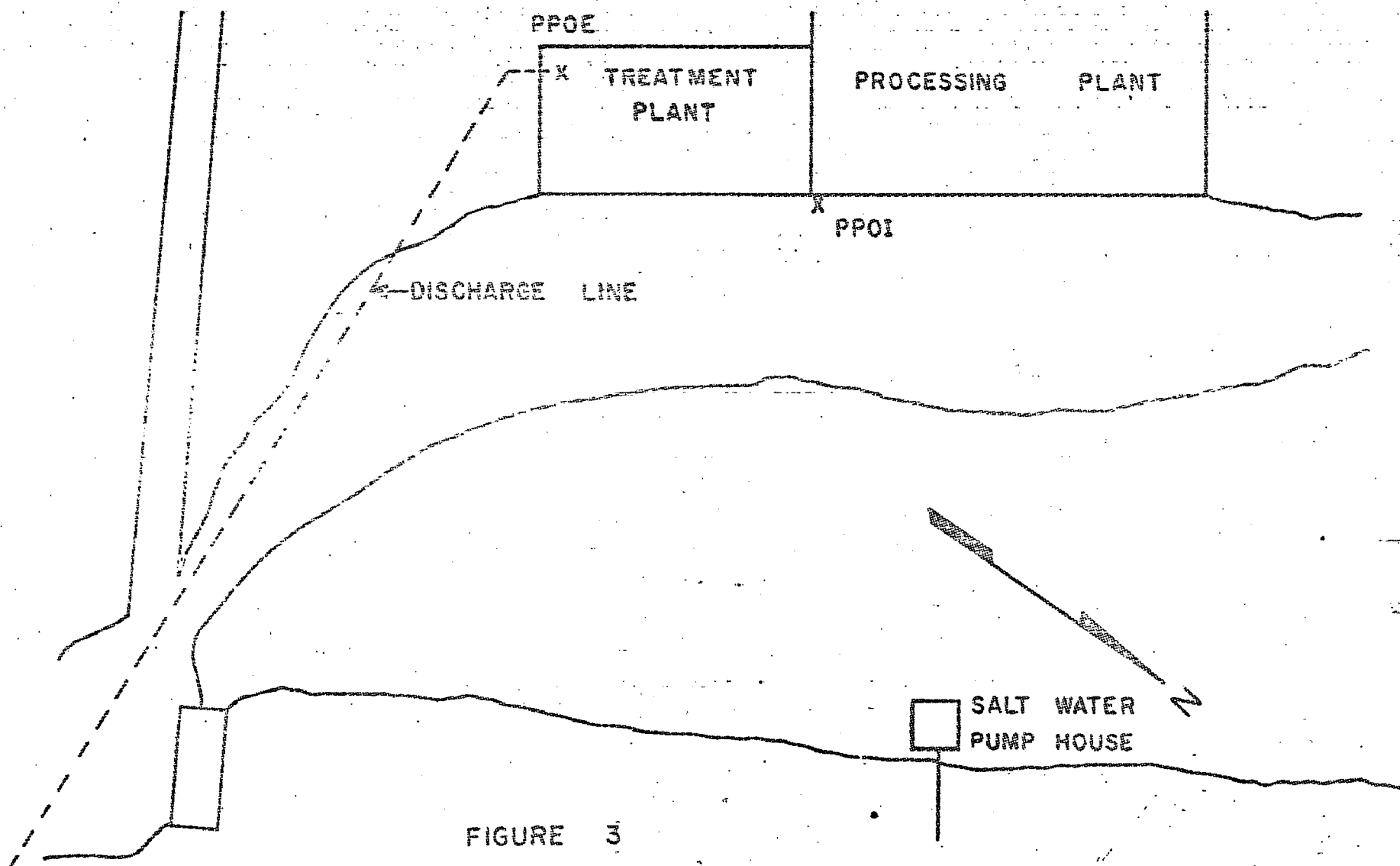


FIGURE 3

STATION LOCATION
POULTRY PROCESSING COMPANY

BELFAST BAY

REFERENCES

U. S. Environmental Protection Agency,
Technical Studies Section's report on:

- *1.) "Waste Treatment Plant Efficiency Study,
Maplewood Poultry Company," September 13, 1972.
- 2.) "Industrial Waste Survey, Poultry Processing
Company, Water Pollution Control Facility,"
July 27, 1971.

APPENDIX A

Notification of Unlicensed discharge of Untreated Sanitary Waste



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AUGUSTA, MAINE 04330

August 14, 1972

Mr. Herbert Hutchings,
General Manager
Poultry Processing, Inc.
Belfast, Maine

Dear Mr. Hutchings:

Subject: Sanitary Waste

Thank you for the cooperation you and your plant manager displayed during our dye tests on August 11th.

Naturally, we did not pour dye into every toilet in the city. The accessible houses, however, in the vicinity of Poultry Processing together with the potato plant and the wood working plant were checked out. All appears to go into the municipal system. The only dye appearing in the sewer outlet in question is that which was poured into the men's toilets at Poultry Processing (red dye), and blue dye which was poured into the toilet of your office building, across the street from your plant, by your plant manager. The only conclusion one can draw from this is that there is reason to believe that you have an unlicensed discharge of untreated sanitary waste which is in direct violation of Title 38 of the Maine Revised Statutes.

We feel that this discharge should and can be connected to the municipal system at once and expect a signed statement from the City when connection is made.

This Department will have to certify pursuant to Section 21 (b) (1) of the Federal Water Pollution Control Act, your treated industrial discharge in connection with your application for a Discharge Permit from the Corps of Engineers.

On a State level, we have to consider all discharges from your facility even though sanitary waste is excluded from the Refuse Act. It will be impossible for us to approve of your request for certification when an unlicensed discharge is taking place and State law is being violated. The same consideration applies to the present untreated discharge from your rendering operation, which I understand will be connected into your waste treatment plant in the near future.

Mr. Herbert Hutchings

We suggest that arrangements be started immediately to connect your sanitary discharge into the municipal system and at the same time alleviating your present discharge from the rendering operation. If you have any questions about this, please do not hesitate to contact this office.

Very truly yours,



K. Lennart Rost, P.E.
Chief, Division of Industrial Services
Bureau of Water Quality Control

KLR:sib

cc: Mr. William Lunt, City Manager, Belfast
Division of Enforcement and Licensing

APPENDIX B

Report on land dump site for float formed on flotation unit.

Allyn Hemenway, Attorney
Legal Review Section

September 19, 1972

David H. Stonefield, Chief
Technical Studies Section

Poultry Processing Company's Dump Site (drying lagoons),
Belfast, Maine

During a conversation with Robert Young, owner of Young's Lobster Pound, located in Belfast, Maine, Mr. Young commented on a dump site that Poultry Processing Company was using to dispose of waste material from their processing plant. This dump site is used for disposal of sludge from the flotation unit of the Poultry Processing Company waste treatment. During certain times of the year, this dump site gives off a tremendous amount of odor. Many of the local residents have complained about this situation and according to Mr. Young, nothing has been done.

During a reconnaissance survey of the Poultry Processing Company on August 17, 1972, Mr. Bruce Chandler, Treatment Plant Operator, indicated that the sludge from their flotation unit was sent to the rendering room at the Poultry Processing Plant.

Mr. Herbert Hutchins, President of Poultry Processing Company, was contacted for permission to observe this dump site. Mr. Hutchins was out of town, therefore, Mr. Koski handled the request. Mr. Koski refused to allow EPA personnel to enter the property. At this time, Mr. Wlodkowski, Assistant U. S. Attorney in Portland, Maine, was contacted. Mr. Wlodkowski contacted Mr. Hutchins and permission to observe the dump site was granted.

On September 15, 1972, Robert Atwood, Sanitary Engineer, accompanied by Mr. Koski, visited the dump site. The dump site is located on Poors Mill Road in the town of Belfast, Maine. The dump site consists of about eight sludge drying lagoons (about 200 square feet per hole). The fill from these lagoons has been placed around each lagoon. Sludge from the waste treatment plant and at times, eggs and parts of waste chickens are placed in these lagoons. There were no signs of run-off or leachate from the lagoons. The closest flowing water was located about 1/2 mile away. Although no liquid waste is flowing directly into this stream, during a heavy rain it is inevitable that some run-off from this area will reach the stream.

According to Mr. Koski, the dump site was approved by the EIC, State of Maine, prior to use, which started approximately 1 1/2 years ago.

The Poultry Processing Company is in the process of building an addition to their rendering room. This addition will handle the waste material which is currently being placed in these drying lagoons. According to Mr. Koski, this addition will start operation during the week of September 18, 1972.

On September 19, 1972, Jim Grey of the EIC, State of Maine, was contacted about this dump site. According to Jim Grey, the EIC has no jurisdiction in this case. The dump site is on private property and does not affect a body of water. For this same reason, the EIC has not issued a permit for the drying lagoons. Jim Grey indicated that the only way that Poultry Processing could be forced to back fill the lagoons, is if a complaint was filed, stating that these lagoons are a public nuisance.

We recommend that Poultry Processing Company convert this dump to an adequate sanitary landfill operation. If upon our request they are not willing to do so then appropriate enforcement action should be initiated, possibly under public nuisance framework as is being used as part of the Saugus Dump case.

Photographs will be forwarded when available.

HS

cc: Earl Anderson
Thomas Devine

RAtwood/jmk 9/20/72

APPENDIX C

State of Maine Waste Discharge License



STATE OF MAINE
WATER AND AIR ENVIRONMENTAL
IMPROVEMENT COMMISSION

AUGUSTA, MAINE 04330

WASTE DISCHARGE LICENSE

POULTRY PROCESSING, INCORPORATED is hereby granted a license
(Name of Person, Firm, Corp., Municipality, etc.)

from the State of Maine, Water and Air Environmental Improvement Commission, as provided by Title 38, Chapter 3, Section 414, Revised Statutes of 1964, as amended, to discharge to the PENOBSCOT BAY at BELEFAST, MAINE the following WASTE FROM A POULTRY TREATMENT PLANT, of the quantity and characteristics and subject to conditions designated below:

- a. That the waste discharge will not exceed 800,000 gallons per day at a maximum rate of 2.0 million gallons per day.
- b. The 5-day, biochemical oxygen demand is limited to 2300# per day from the date of this license until secondary treatment is provided as specified in this license.
- c. No floatable or settleable solids is to be discharged.
- d. No material in any way toxic is to be discharged.
- e. Coliform count of the effluent must not exceed 100 M.P.N. per 100cc or an equivalent density.
- f. Virtually all grease is to be removed prior to discharge and blood can be discharged only in those quantities that do not cause noticeable discoloration in the receiving water.
- g. Not later than June 30, 1970, secondary treatment facilities must be under construction to be in operation not later than January 1, 1971.
- h. Following the putting into service of the secondary phase of treatment, the 5-day, biochemical oxygen demand load is limited to 500 pounds and the maximum permissible rate of B.O.D. discharge for any hourly period shall be 600 pounds per day.

STE DISCHARGE LICENSE CON'T
POULTRY PROCESSING, INCORPORATED

- i. The prohibition against the discharge of floatable solids, settleable solids, grease, and blood will be in effect following secondary treatment. Also following secondary treatment the net color and turbidity of material discharged will be such that no noticeable discoloration of the receiving water occurs.
- j. Measuring devices which will permit ready determination at the rate of flow of the waste following treatment and withdrawal of samples are to be provided.
- k. All plans of installations are to be submitted to the Commission for approval well in advance of start of construction.
- l. This license does not in any way prevent the consignment of this waste to a municipal treatment plant provided the degree of treatment available is similar to that required by this license.

This is not a new license. This license was originally erroneously issued to Penobscot Poultry Company instead of the proper legal owner Poultry Processing, Incorporated.

GIVEN UNDER OUR HAND AND SEAL THIS 28th DAY OF February, 1969.

INITIAL LICENSE X

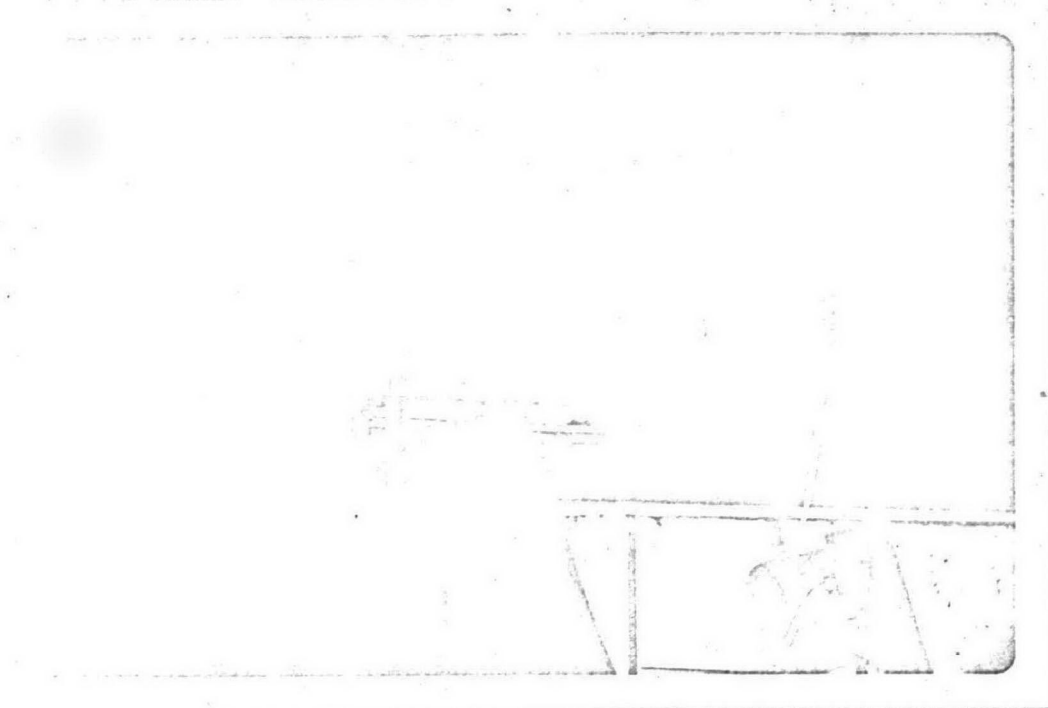
RENEWAL

By: *Henry F. [Signature]* (Secretary)
WATER & AIR ENVIRONMENTAL IMPROVEMENT COMMISSION

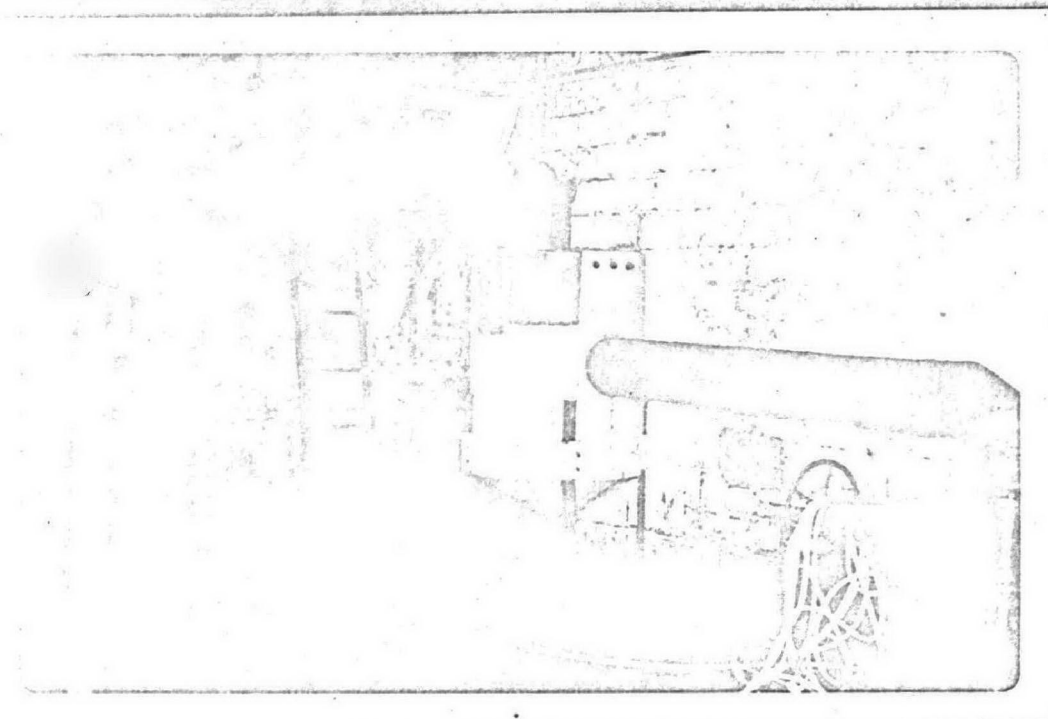


APPENDIX D

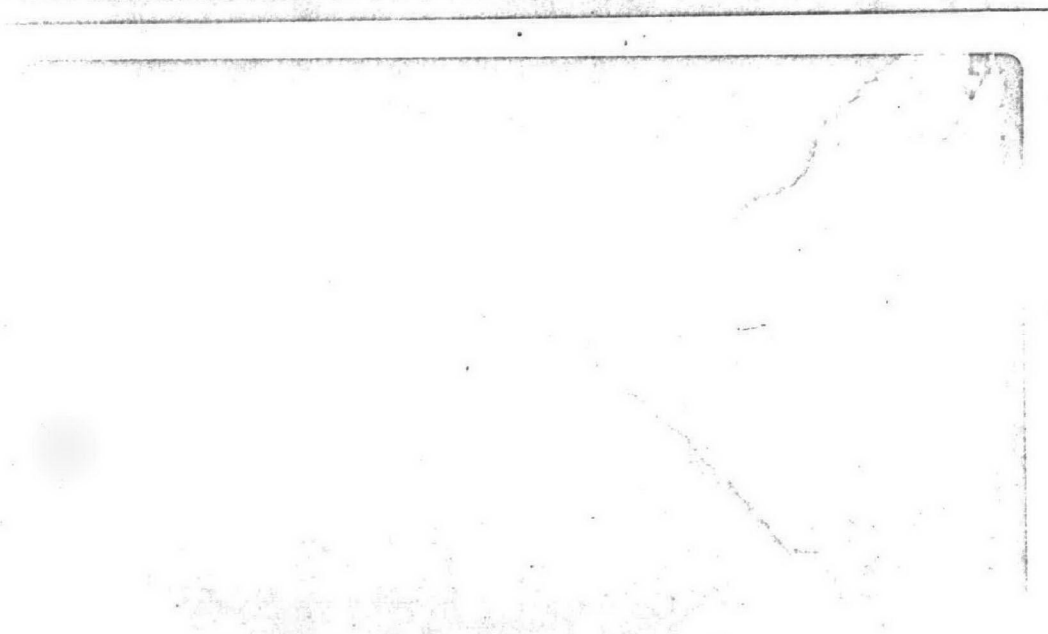
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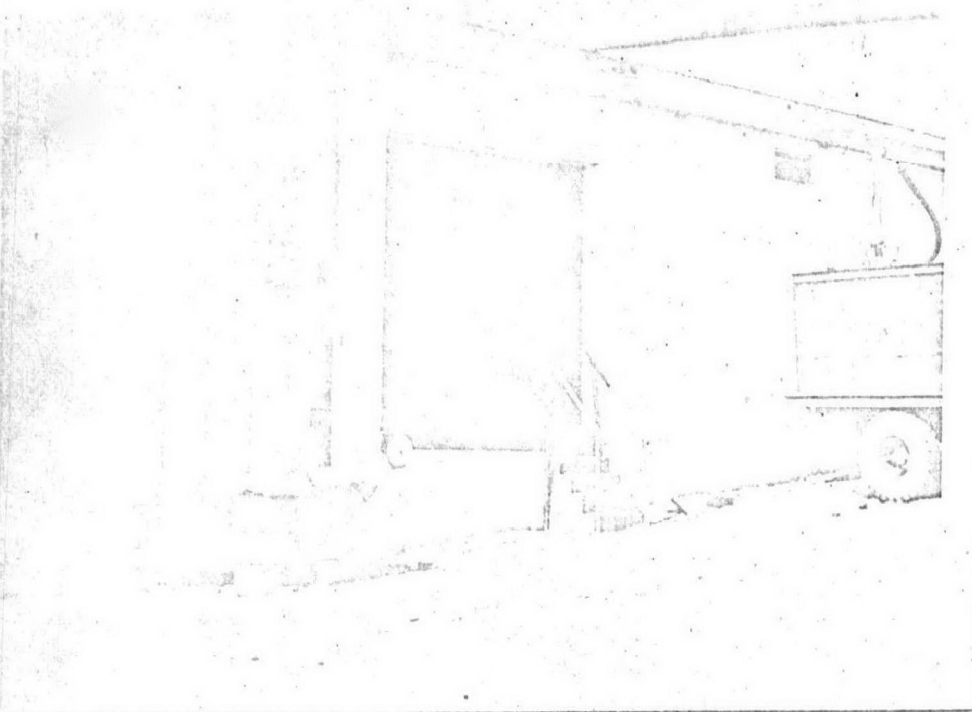
EVISCKERATION WASTE SCREEN



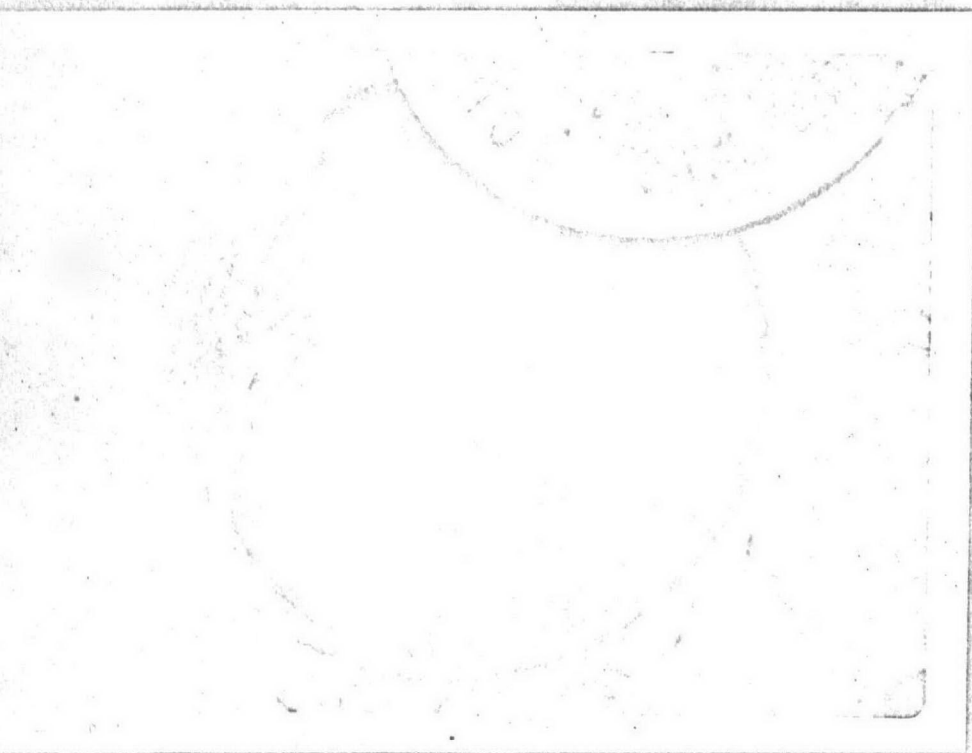
WASTE COLLECTION UNIT
UNDER THE EVISCERATION
SCREEN



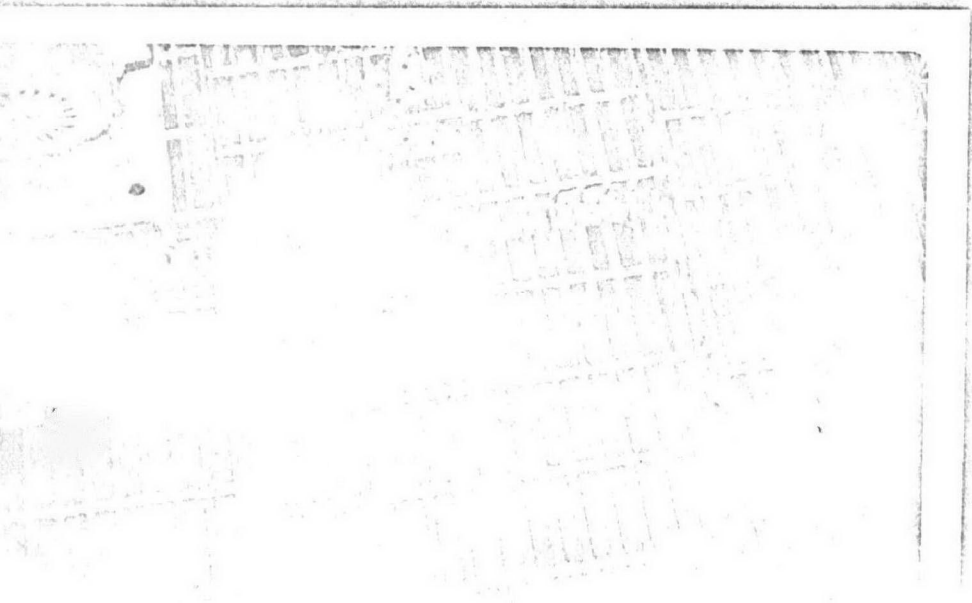
FEATHER SCREEN



ENTRANCE TO TREATMENT PLANT



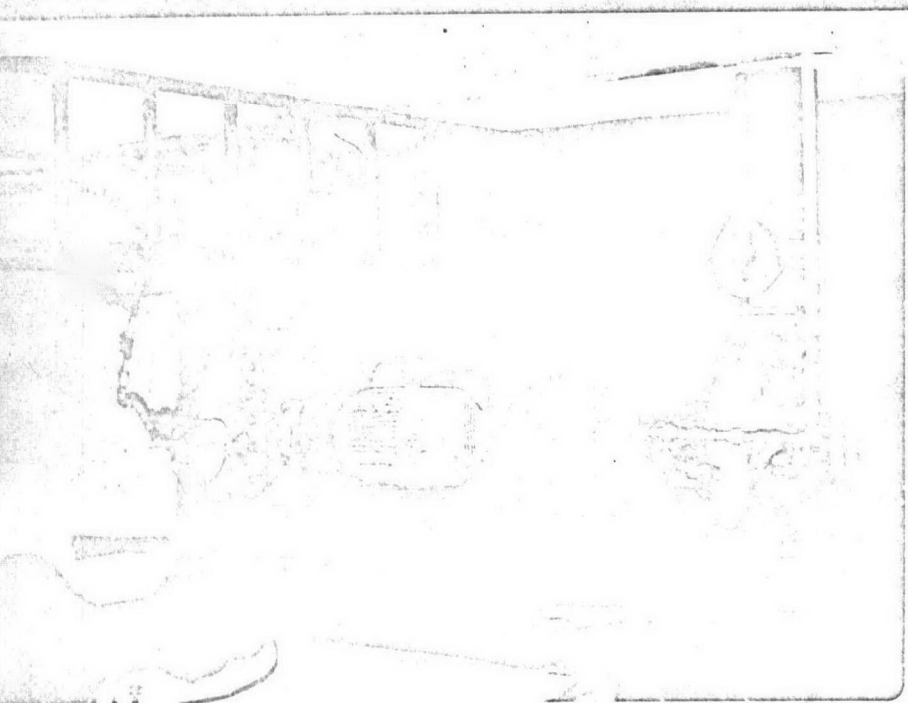
COLLECTION MANHOLE PRIOR TO
TREATMENT PLANT



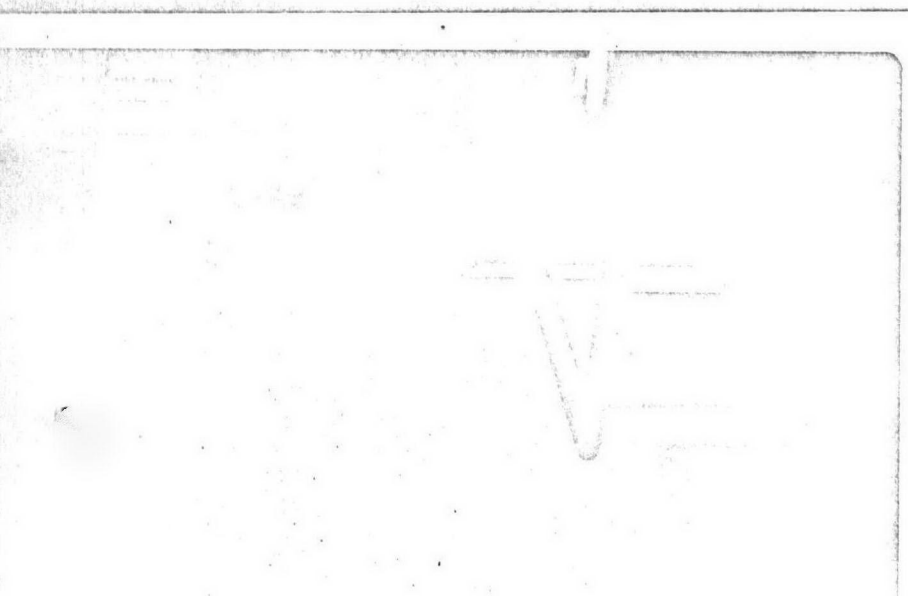
WASTE ENTERING WET WELL



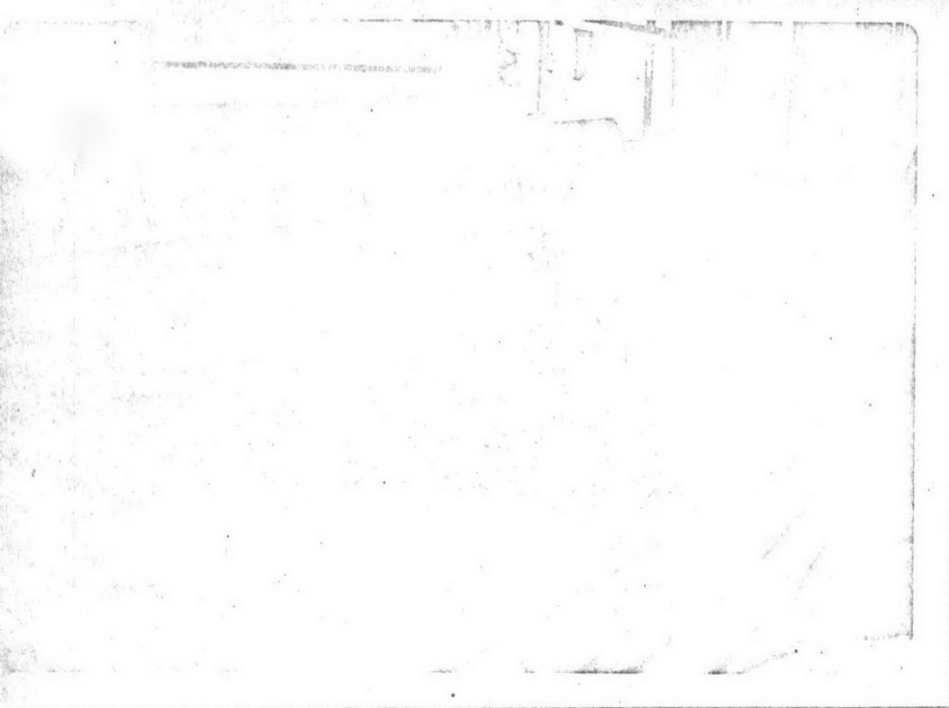
CHEMICAL FEED UNITS



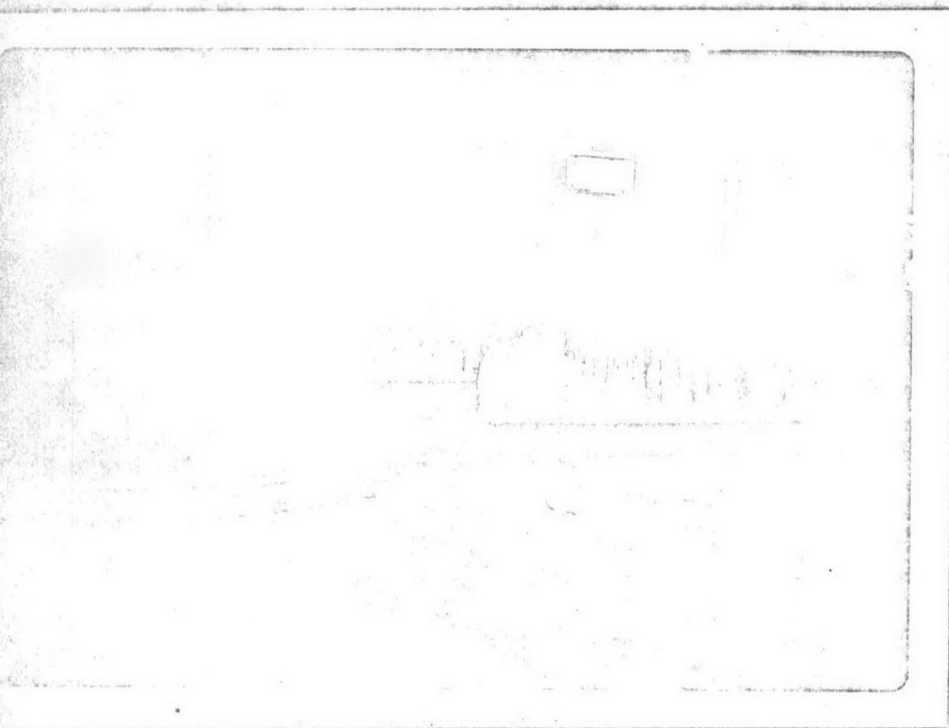
DRY WELL



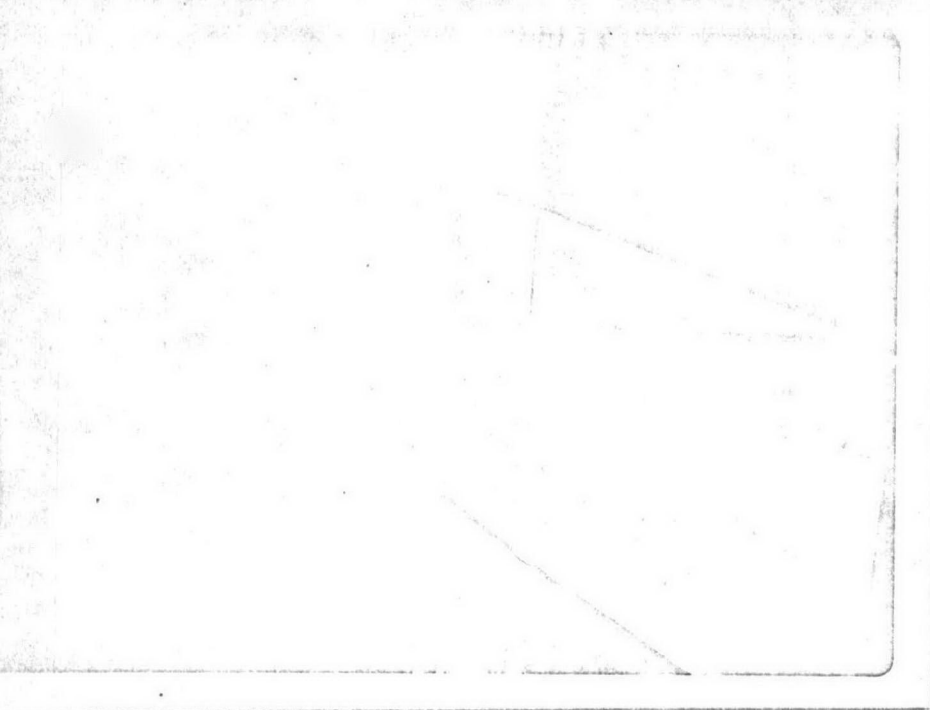
RECYCLE SATURATION TANK



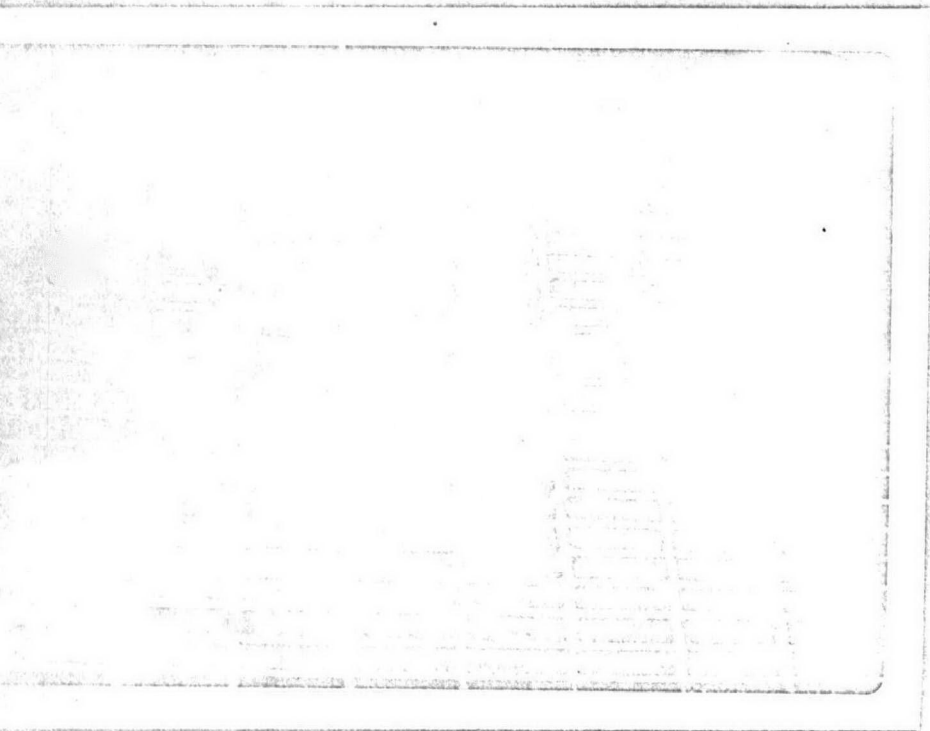
SLUDGE REMOVAL UNIT ON TOP
OF FLOTATION TANK



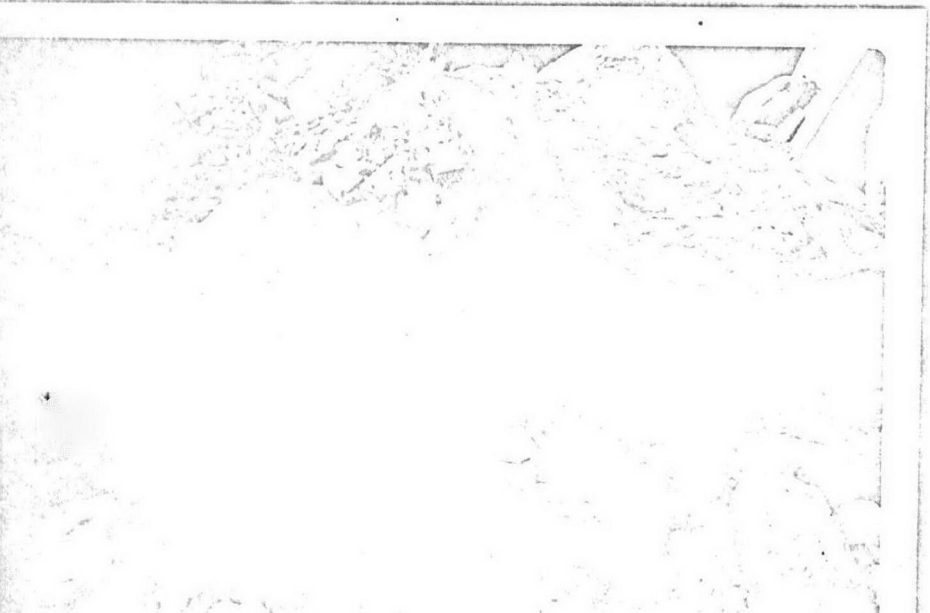
EFFLUENT FROM FLOTATION UNIT



CHLORINE CONTACT CHAMBER



EFFLUENT RECTANGULAR WEIR
(SAMPLING STATION PPOE)



UNLICENSED SANITARY
SEWER DISCHARGE