



INDUSTRIES

PPG INDUSTRIES, INC./ONE GATEWAY CENTER/PITTSBURGH, PENNSYLVANIA 15222/AREA 412/434-2841

June 7, 1983

RICHARD J. SAMELSON, Manager
Environmental Programs
Industrial Chemical Division

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Administrator
U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, TX 75270

Attention: Mr. Ed McHam

Re: NPDES Permit No. LAD008086506
Renewal Application, 40 C.F.R. 122.53

Gentlemen:

Enclosed is a revised permit application Form 2C (non-analytical data portion) to replace that originally submitted March 27, 1981. This revision incorporates the changes brought about by the modernization of Plant A diaphragm cell facilities (scheduled for start-up in June 1983) which were discussed under IV-B in the 1981 application. Item IV-B has been updated to reflect current planned projects. Three surface runoff discharge points not previously recognized have been added to the application. Also, a general updating of the water balance and associated sketches have been made, and an enlarged, improved Outfall map (Figure 1) is included.

Please note that certain pages concerning our water balance have been labeled confidential. These have been enclosed in a separate envelope. These pages contain information about our processes that is proprietary, not disclosed to parties outside the company, and would be detrimental to our competitive position if disclosed. We therefore request confidential treatment of this information.

(SL 049351



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SL 049352

Administrator
June 7, 1983
Page Two

If you have questions concerning this document, please call Mr. James E. Wyche III, Coordinator of Environmental Systems, at Lake Charles. His telephone number is (318) 491-4830.

Very truly yours,

R. J. Samelson / sdh
R. J. Samelson

RJS:sdh

Enclosure

cc: J. Dale Givens, Administrator
LA Department of Natural Resources

SL 049353

SL 049354

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FORM
26
NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

[illegible]

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
001	Plants "A", "B", "C", Silicas, and Powerhouses A, B, and C (see Table 1). This outfall is the combined discharge of effluents from the facility to Bayou D'Inde			
	By category:			
	1) once-through cooling water	178,191 gpm	1) once-through cooling water	4-A
			No treatment.	
	2) process wastewater	6,989 gpm	2) process wastewater	2-K
			Treatment of individual process streams entering Outfall 001 are described in detail under their respective outfalls.	4-A
			Treatment of the combined process wastewater discharge into Outfall 001 consists of pH adjustment in the PPG Canal (see Figure 9).	
	3) cooling tower blowdown	354 gpm	3) cooling tower blowdown	4-A
			Treatment of these streams is described under their respective outfalls.	

FORM
33
NPDESLAD008086506
U.S. ENVIRONMENTAL PROTECTION AGENCY Revised 5/2/83
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item 8. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
001	4) sanitary wastewater	36 gpm	1) sanitary wastewater	3-C
		(see Figure 8)	Treatment of the portion (15	1-U
			gpm) coming from Outfall 007	4-A
			is described under that outfall.	
			The portion (21 gpm) discharged	
			directly to the PPG Canal is	
			treated by the Imhoff method	
			of anaerobic digestion (see	
			Figure 10).	
	5) other non-process effluents	230 gpm	5) other non-process effluents	5-L
	(blowdown from incoming		Except for the Sabine River	1-U
	water purification systems, and		water clarification system	4-A
	powerhouse boiler blow-		which is described in Figure 11,	
	downs.)		all other non-process streams	
	Total discharge from PPG	185,800 gpm	discharge to in-plant outfalls	
		+ storm runoff	and treatment is described	
			under those outfalls.	
	6) effluent from neighboring	600 gpm	6) off-site effluent	4-A
	industries (Certain-Teed	+ storm runoff	No treatment by PPG.	
	Products Corp., Jupiter			
	Chemical Inc., and Liquid Air			
	Corp.) plus storm runoff from			
	off-site property.			
	Total to Outfall 001	186,400 gpm + storm runoff (see Figure 2)		

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U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

B: For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

OFFICIAL USE ONLY (effluent guidelines sub-categories)

SL 049357

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
006	30	13	38	93	17	32	This is an internal effluent which discharges into Outfall 018, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Cont on additional sheets if necessary.

1. OUTFALL NO (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES (TABLE 2C-1)
006	1) process wastewater from Silica manufacturing process	2,000 gpm	1) sand filters remove the solids from this effluent and return them to the process. Size: 4 filters in parallel, 5.2 MM gpd* capacity Flow rate: 4.3 MM gpd* Retention: 30 minutes	1-R
	2) wastewater from wet scrubbers used to control particulate emissions from Silica's plant	115 gpm	2) Solids are separated from the effluent in a 15,000 gallon settling basin. Flow rate is 0.16 MM gpd* and retention is 6 hours. These non-hazardous solids are periodically removed and disposed of off-site.	1-U
	3) process wastewater from milling, drying, and packing of Silica products	recycle to process	3) solids are separated from this water in a 15,000 gallon settling basin. Flowrate is 0.29 MM gpd* and retention is 2 hours. These non-hazardous settled solids are periodically removed and disposed of off-site. The water is returned to the process.	1-U 4-C
Total to Outfall 006		2,115 gpm		
		(see Figure 7)	*MMgpd = million gallons per day	

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FORM
26
DES



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

[illegible]

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

8. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
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Consolidated Permits Program

I. OUTFALL LOCATION

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A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
007	30	13	34	93	17	32	This is an internal effluent discharging into Outfall 018, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8 and Table 1)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	A. DESCRIPTION	B. LIST CODES FROM TABLE 2C-1
007	1) Plant "C" process wastewater	954 gpm	1) Process streams are treated individually as follows:	
	including:	+ storm runoff		
	(a) stripped chlorinated condensate		(a) - (g) No treatment (except pH adjustment)	
	(b) waste sulfuric acid		(h) Brine treatment solids are	2-K
	(c) waste caustic		used to neutralize waste hydrochloric acid before discharge.	
	(d) hydrogen condensate		Capacity of the system is 0.14	
	(e) chlorine header seal water		MM gpd*, flow rate is 0.03	
	(f) emergency chlorine neutralizer		MM gpd*, and retention time	
	(g) brine purges		is 3 hours.	
	(h) brine treatment solids		(i) Cell renewal wastewater is	1-U
	(i) cell renewal wastewater		allowed to settle and pass through	1-R
			a rapid sand bed to remove	
			asbestos prior to discharge. The	
			collected asbestos solids are	
			periodically processed through	
			the asbestos filter system in	
			Plant "A" diaphragm cell area	
			(see Figure 14) and disposed of	
			offsite in an authorized hazardous	
			waste facility. Settling pond	
			volume is 60,000 ft ³ . Flow rate	
			is 0.02 MM gpd* and ret	24 hrs.
*MM gpd = million gallons per day			SL 049360	

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
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FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
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Consolidated Permits Program

I. OUTFALL LOCATION

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A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
010	30	13	25	93	17	09	This is an internal monitoring station which discharges into the PPG Canal, thence to Outfall 001 and into Bayou D'Ind (see Figure

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
010	Plant "B" wastewater as follows			
	1) cooling tower blowdown	289 gpm	1) Metals discharge is minimized by the use of non-heavy metal treatment systems and by purification of incoming water which allows the water to be recycled a greater number of times, thereby decreasing the volume of the blowdown.	
	2) once-through cooling water	340 gpm	2) no treatment	
	3) furnace decoking water from two vinyl chloride monomer production units (intermittent -- 400 gpm for 38 days/year)	42 gpm	3) no treatment	
	Total at Outfall 010	671 gpm		2-K
		+ storm runoff		
		(see Figure 5)	Note: All streams discharged through Outfall 010 are adjusted for pH downstream in the chemical neutralization system described in Outfall 001.	

 U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

OFFICIAL USE ONLY (effluent guidelines sub-categories)

SL 049363

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LAD008086506

FORM
2C
NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

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	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
111	30	13	25	93	17	01	This is an internal monitoring station which combines with Outfall 011 prior to discharging into Outfall 014, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

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B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

OFFICIAL USE ONLY (effluent guidelines sub-category)

SL 049364

SL 049365

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY Revised 5/2/83
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

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A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
014	30	13	20	93	17	04	This is an internal monitoring station discharging into the PPG Canal, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

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1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
014			Outfall 014 is subjected to pH adjustment as described on the following page. In addition, some components of Outfall 014 are individually treated as described below:	
	1) process wastewater from Diaphragm Cell portion of Plant "A" including:	370 gpm	1) No treatment	
	(a) chlorinated condensate			
	(b) waste sulfuric acid			
	(c) hydrogen condensate			
	(d) chlorine header seal water			
	(e) caustic evaporator condensate			
	(f) brine purges			
	2) once-through cooling water from Diaphragm Cells	100 gpm	2) No treatment	
	Total contribution of Diaphragm Cells to Outfall 014	470 gpm		

OFFICIAL USE ONLY (effluent guidelines sub-categories)

SL 049366

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LAD008086506

FORM 26 NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

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A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	c. DESCRIPTION	d. LIST CODES FROM TABLE 2C-1
014	3) process wastewater from Mercury Cell portion of Plant "A", Outfalls 011+111 + HCl storage tank vent scrubber effluent (5gpm)	607 gpm	3) Mercury Cell process wastewater treatment is described in Outfalls 011 and 111. No treatment of vent scrubber effluent.	
	Total to Outfall 014	1077 gpm		
		+ storm runoff		
		(see Figures 3 and 4)		
			Note: Outfall 014 is equipped with an automatic pH control system utilizing acid and caustic reagents and a static mixer plus feed forward control instrumentation to maintain this discharge within pH limits of approximately 5-10. This stream is further adjusted for pH downstream in the chemical neutralization system in Outfall 001.	

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SL 049367

EPA 5-2510-2C (5-90)

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
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A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
015	30	13	16	93	16	52	This is an internal monitoring station discharging into the Powerhouse Ditch, thence to Outfall C and into Bayou D'Inde (see Figure 1).
016	30	13	16	93	16	52	This is an internal monitoring station discharging into the Powerhouse Ditch, thence to Outfall C and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

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	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
015	Powerhouse "A"			
	1) once-through cooling water	41,703 gpm	1) No treatment	
	2) non-process water including:	26 gpm	2) Deionization regeneration	2-K
	(a) boiler blowdown		chemicals are neutralized	
	(b) deionization unit regeneration		prior to discharge.	
	Total to Outfall 015	41,729 gpm (see Figure 4)		
016	Powerhouse "B"			
	1) once-through cooling water	86,025 gpm	1) No treatment	
	2) non-process water including:	26 gpm	2) Deionization regeneration	2-K
	(a) boiler blowdown		chemicals are neutralized	
	(b) deionization unit regeneration		prior to discharge.	
	Total to Outfall 016	86,051 gpm (see Figure 4)		

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SL 049368



I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
017	30	13	25	93	17	02	This is an internal monitoring station which discharges into the PPG Canal, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

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SL 049369

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2C

NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY
 APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
 EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
 Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
018*	30	13	22	93	17	08	This is an internal monitoring station discharging into the PPG Canal, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

*See Outfall 118

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
018	1) process wastewater from all Plant "B" products units except VDCM.	750. gpm + storm runoff from process pads	1) Process wastewater is steam stripped as described in Figure 15.	1-U
	2) process wastewater from VDCM production unit	38 gpm	2) This process water has been treated within the production process in which chlorinated organics were stripped from the aqueous bottoms stream prior to discharge.	1-D
	3) primary scrubbing water from process waste incinerator units (four)	1550 gpm	3) No treatment.	
	Total contribution to Outfall 018 from Plant "B"	2,338 gpm + storm runoff (see Figure 5)		
	4) Plant "C", Outfall 007 (see Figure 6)	1015 gpm	4) Plant "C" treatment is described in Outfall 007	



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

SL 049371

FORM
20
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
 APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
 EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
 Consolidated Permits Program

Revised 5/2/83

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
118*	30	13	22	93	17	08	This is an internal monitoring station which discharges into the PPG Canal, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	A. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1
118	1) Process wastewater from the CHC-EDC production units (3) in Plant "B"	220 gpm	1) Treatment of the process wastewater is described in Figure 16.	2-K 1-D 2-B
	2) Process wastewater from the incinerator secondary scrubbers (three)	50 gpm	2) No treatment.	
	Total to Outfall 118	270 gpm		
		(see Figure 5)	Note: All streams discharged through Outfall 118 receive pH adjustment downstream in the chemical neutralization system described in Outfall 001.	2-K
	*Outfall 018 in the current NPDES permit consists of two separate sewers which are flow-measured and analyzed separately, and the results are reported as a combined total for purposes of measuring compliance with the permit limits. The use of two sewers to convey Plant B organic process wastewaters is necessary to avoid contact of basic chlorine-bearing components with highly acidic components; contact would result in the evolution of chlorine gas into plant work areas. By separately conveying these two streams to the plant pH neutralization system at the head of the PPC Canal where the flow is much larger and pH extremes do not exist, the chlorine release problem is minimized. To clarify the physical arrangement, these two sewers have been identified with separate Outfall numbers (018 and 118) in this application; however, PPG suggests that these two sewers continue to be treated as a single outfall point for the purpose of establishing permit limits.			

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SL 049372

NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	1. MIN.	1. SEC.	1. DEG.	1. MIN.	1. SEC.	
019	30	13	34	93	17	00	This is an internal monitoring station discharging into the PPG Canal, thence to Outfall 001 and into Bayou D'Inde (see Figure 1).

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

*MM gpd = million gallons per day

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
021	30	13	40	93	16	46	Bayou Verdine (Olin Ditch) [see Figure 1]

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water, and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		D. LIST CODES FROM TABLE 2C-1
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION		
021	1) Once-through cooling water from Plant "A"	24,370 gpm	1) No treatment.		4-A
	Diaphragm Cell facility				
	2) Barometric condenser discharge	2,200 gpm	2) No treatment		4-A
	3) Cooling Tower Blowdown	30 gpm	3) Metals discharge is minimized by the use of non-heavy metal treatment systems and by purification of incoming water which allows the water to be recycled a greater number of times, thereby decreasing the volume of the blowdown.		4-A
	4) Storm runoff from Caustic storage, chlorine liquefaction, and brine treatment areas	storm runoff	4) No treatment		4-A
	Total to Outfall 021	26,600 gpm			
		+ storm runoff			
		(see Figure 3)			

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I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
025	30	13	28	93	17	26	This is an internal monitoring station discharging into the PPG Canal, then to Outfall 001 and into Bayou D'Inde (see Figure 1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item 8. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain *mini g* activities), provide pictorial description of the nature and amount of any sources of water and any collection or treatment measures. (see Figures 2 through 8)

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALLING (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		4. LIST CODES FROM TABLE 2C-1	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION			
025	1) cooling tower blowdown from Plant "C" Diaphragm Cell plus storm runoff from Plant "C" and Silicas	50 gpm	Metals discharge is minimized by the use of a non-heavy metal treatment system and by purification of the incoming water, which allows the water to be recycled a greater number of times, thereby decreasing the volume of blowdown water.			
	2) additional flow from neighboring industrial dischargers plus storm runoff	100 gpm	Off-site effluent. No treatment by PPG			
	Total to Outfall 025	150 gpm				
		+ storm runoff				
		(see Figures 6 and 7)				

FORM
26
NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
026	30	13	20	93	17	24	This is an internal monitoring station discharging into the Silica Pigments Ditch, thence to Outfall 001 and into Bayou D'Inde (see Figure1).

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

8. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW	3. TREATMENT	4. LIST CODES FROM TABLE 2C-1
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	C. DESCRIPTION
026	Miscellaneous wastewater from VCM-II (Plant "B"):		
	1) furnace decoking water	23 gpm	1) Furnace decoking waste
			1-U
			water from periodic furnace decoking operations are removed from the wastewater by settling in a 20,000 gal. settling basin. The average flowrate is 0.03 MM gpd**with a retention time of 24 hours. Solids accumulated in the basin are removed and disposed of off-site in an authorized disposal facility.
	2) cooling tower blowdown	10 gpm	2) Metals discharge is minimized by the use of a non-heavy metal treatment system and by purification of the incoming water, which allows the water to be recycled a greater number of times thereby decreasing the volume of blowdown water.

** MM gpd = million gallons per day

**** MM gpd = million gallons per day**

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**FORM
2C
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. UTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
027	30	13	45	93	17	01	Off-site drainage ditch leading to Bayou Verdine (Olin Ditch) [see Figure 1]
028	30	13	45	93	16	57	
029	30	13	45	93	16	53	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, ~~sanitary~~ wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		4. LIST CODES FRC TABLE 2C-1	
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	A. DESCRIPTION			
027	Storm runoff from rail car	storm runoff	No treatment	4-A		
	storage area*					
028	Storm runoff from rail car	storm runoff	No treatment	4-A		
	storage area*					
029	Storm runoff from rail car	storm runoff	No treatment	4-A		
	storage area*					
	* No loading, unloading, washing or other activities					
	occur in this area.					

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C. Except for storm runoff, leaks, or spills, are all the discharges described in Items II-A or B intermittent or seasonal?
☐ YES (complete the following table)

he discharges described in Items II-A or B intermittent or seasonal?
☒ NO (go to Section III)

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(s) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW						5. DURATION ATI <i>(in days)</i>
		a. DAYS PER WEEK <i>(specify average)</i>	b. MONTHS PER YEAR <i>(specify average)</i>	a. FLOW RATE <i>(in mgd)</i>		b. TOTAL VOLUME <i>(specify with units)</i>				
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY			

III. MAXIMUM PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B)

☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☒ YES (complete Item III-C)

☐ NO (go to Section IV)

C. If you answered "Yes" to Item III-B, list the quantity which represents an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
1420 (1506)*	1,000 pounds chlorine product	Chlorine/caustic production by mercury cell process	011 and 111
1956 (2046)*	1,000 pounds chlorine product	Chlorine/caustic production by diaphragm cell process (Plant A) (carbon anodes)	014, 017, 019
3070 (3120)*	1,000 pounds chlorine product	Chlorine/caustic production by diaphragm cell process (Plant C) (DSA)	007 (018)

*These figures in parenthesis indicate the highest single day of production.

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)

☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. AS REQUIRED	b. AS PLANNED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (for other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS A

Item IV B

Planned Projects Affecting Discharges

1. Modernization of the Plant A Diaphragm Cell facilities has been approved by PPG's Board of Directors and is scheduled to be completed in late 1983. This project consists of converting the existing anode diaphragm cells to more efficient bipolar dimensionally stable anode electrolyzers, as well as significant improvements in the ancillary facilities. Production capacity will be unchanged. No new pollutants will be discharged to the waterways. In fact, when completed, this modernization project will have a substantial positive environmental impact including the following in the water area:

- (a) The new chlorine cells installed as part of this project employ metal anodes and do not use lead, thus eliminating this source of a toxic pollutant.
- (b) The quantity of hypochlorite discharge (Outfall 111) will be sharply reduced by the installation of a sulfur chloride unit to recover chlorine from the tail gases, in place of the existing caustic scrubbing tower.
- (c) The quantity of dissolved chlorine discharged (Outfall 014) will be reduced by the installation of an improved chlorinated condensate stripping system.
- (d) The chlorinated hydrocarbon stream associated with the chlorine gas scrubbing system (Outfall 014) will be eliminated by the conversion to dimensionally stable anodes.

A more detailed description of the project scope may be found in the August 28, 1980 letter from R. J. Samelson to Oscar Cabra (Region VI, EPA).

The revisions to effluent volume and routing occurring as a result of this project are reflected in the Outfall descriptions, water balance, and sketches of this application since initial start-up of the first chlorine circuit is scheduled for next month (June, 1983).

2. Several projects are now in the design phase. These include additional hypochlorite control for Outfall 007 and a change in process effecting about 25% of total silica products production. Since neither of these changes has been approved by the Board of Directors, they are not included in this package of information. Depending upon approval status, these changes may be requested for incorporation at the time of permit negotiation. Both projects would qualify as minor modifications. No new pollutants would be added; in fact, total pollutant loads would be expected to decrease slightly.

CONTINUED FROM PAGE 2

LAD008086506

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C. See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Asbestos	Used in chlorine cells in Plants "A" and "C"		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufacture as an intermediate or final product or byproduct?

☒ YES (list all such pollutants below)

☐ NO (go to Item VI-B)

Chromium, total	Chloroform	Toluene
Copper, total	1,1-Dichloroethane	1,2-Transdichloroethylene
	1,2-Dichloroethane	1,1,1-Trichloroethane
Mercury, total	1,1-Dichloroethylene	1,1,2-Trichloroethane
Phenols, total	Methylene chloride	Trichloroethylene
Carbon tetrachloride	1,1,2,2-Tetrachloroethane	Vinyl chloride
Chloroethane	Tetrachloroethylene	

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☐ YES (complete Item VI-C below)

☒ NO (go to Section VII)

C. If you answered "Yes" to Item VI-B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (Identify the test(s) and describe their purposes below)

☒ NO (Go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

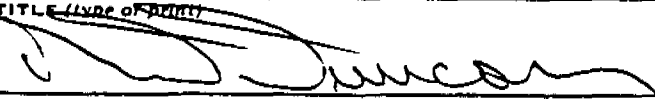
☐ YES (List the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (Go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Core Laboratories, Inc.	P. O. Box 3303 Lake Charles, LA 70602	(318) 882-0334	Phenols COD Nitrogen, total org Nitrate-Nitrite Ammonia
Radian Laboratories, Inc.	8501 Mopak Boulevard Austin, TX 78766	(512) 454-4797	Heavy metals
Kemron Environmental Services	16550 Highland Road Baton Rouge, LA 70808	(504) 293-8650	Heavy metals

IX. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (Type or print)	B. PHONE NO. (area code & no.)
R. D. Duncan VP/GM ICD	(412) 434-2515
C. SIGNATURE	D. DATE SIGNED
	June 7, 1983

FORM 2-C
SCHEDULE OF ATTACHMENTS

To assist the Agency in understanding the information requested in items I and IIA, the following attachments are provided:

- 1) listing of production facilities by area, identified as Table 1
- 2) water balance summary, identified as Table 2
- 3) outfall schematic and characterization, PPG Dwg 35A-10005, identified as Figure 1
- 4) overall schematic of water flow, identified as Figure 2
- 5) detailed schematic of water flow by areas, 6 pages, identified as Figure 3-8

To support the information requested in item IIB, the following attachments are included:

- 1) schematic of Outfall 001 neutralization system, identified as Figure 9
- 2) schematic of Imhoff sanitary treatment system, identified as Figure 10
- 3) schematic of Sabine River water clarification system, identified as Figure 11
- 4) schematic of aerobic sanitary treatment system, identified as Figure 12
- 5) schematic of mercury treatment system, identified as Figure 13
- 6) schematic of asbestos treatment system, identified as Figure 14
- 7) schematic of Plant "B" wastewater collection and treatment system, identified as Figure 15
- 8) schematic of OHC-EDC wastewater treatment system, identified as Figure 16

Table 1

PPG Industries, Inc.
Lake Charles, La.

CHEMICAL PLANT PRODUCTION FACILITIES

Plant "A"

Diaphragm Cell Chlor/Alkali facility producing:

chlorine gas and liquid sodium hydroxide (caustic)

Mercury Cell Chlor/Alkali facility producing:

chlorine gas
sodium hydroxide (caustic)
hydrogen gas

Plant "B"

Chlorinated Hydrocarbon facilities producing:

Perchloroethylene
Trichloroethylene
Vinyl chloride monomer (VCM)
Ethyl chloride (EC)
Methylchloroform (MC)
Vinylidene chloride monomer (VDCM)
Ethylene dichloride (EDC)
 by direct chlorination
 by oxychlorination
Muriatic acid

Plant "C"

Diaphragm Cell Chlor/Alkali facility by producing:

chlorine gas
sodium hydroxide (caustic)
hydrogen gas

Silica Products

Silicas facility producing amorphous silica products

SL 049385

Power Facilities

Powerhous A producing electric power and steam

Powerhouse B producting electric power

Powerhouse C producing electric power and steam

TABLE 2

PPG Industries, Inc.
Lake Charles, La.

WATER BALANCE SUMMARY

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of the United States Court
No. 1146

TABLE 2

PPG Industries, Inc.
Lake Charles, La.

WATER BALANCE SUMMARYIncoming Water

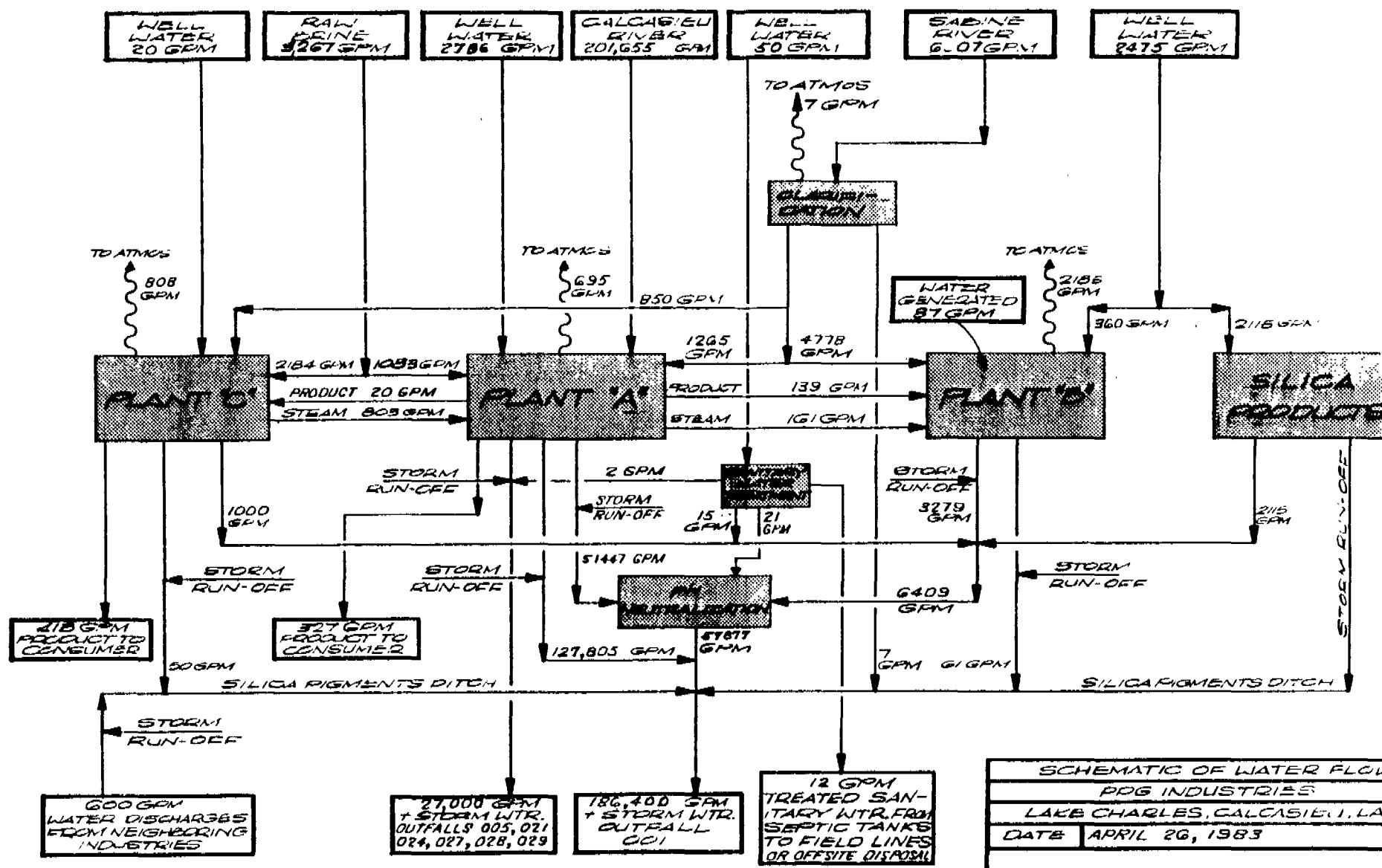
<u>Sources</u>	<u>Gallons Per Minute</u>
Calcasieu River	201,655
Sabine River	6,907
Well Water	5,331
Raw Brine	3,267
Generated in process	-87
Neighboring industries	600
Total	217,847

Effluent Water

<u>Discharges</u>	<u>Gallons Per Minute</u>
Bayou D'Inde	186,400
Bayou Verdine (Olin Ditch)	27,000
Atmosphere	3,695
Product	740
Field Lines (i.e., septic tank systems)	12
Total	217,847

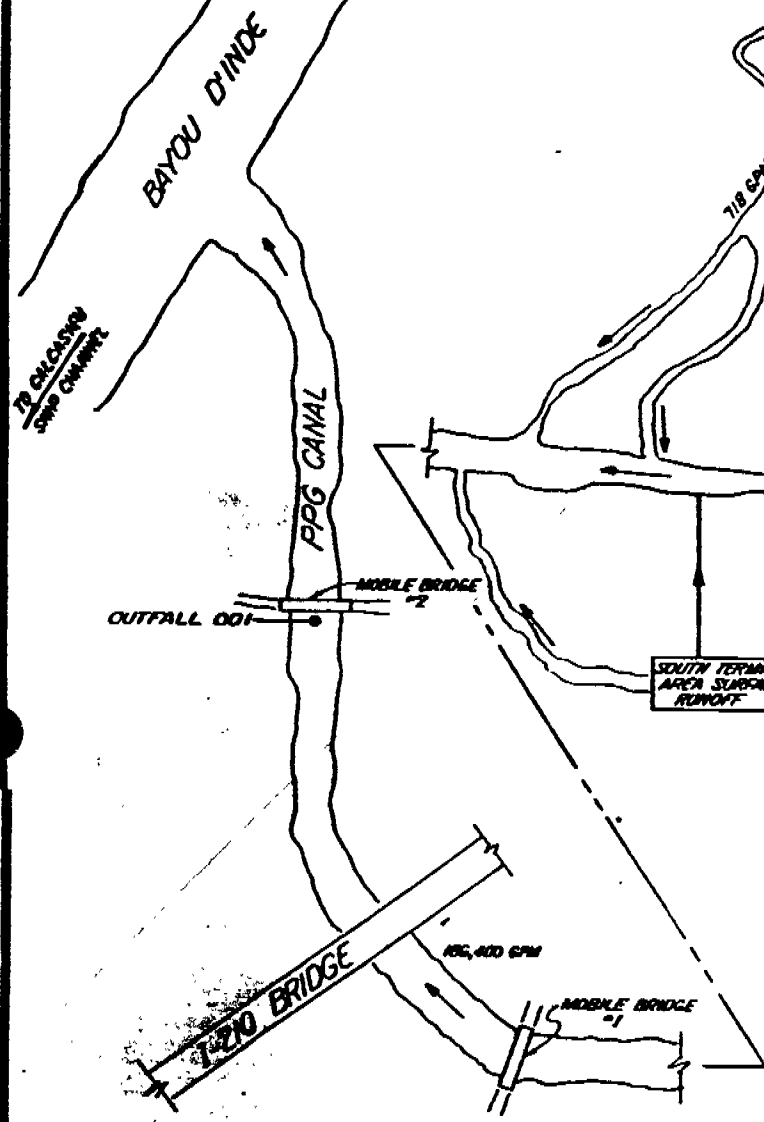
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No. 91-1145

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OUTELL SPRING
PVC INDUSTRIES, INC.
LAKE CHARLES, LA.

1970年
 1月
 1日
 星期一
 1970年
 1月
 1日
 星期一

[illegible]

2024

BROOKS
BROOKS
GUYTON
GUYTON
PPG CAN

GUYTON
GUYTON
POWER
PPG CAN
PPG CAN
POWER
POWER
PPG CAN
PPG CAN
PPG CAN
PPG CAN
PPG CAN

11.15 GPM

OUTFALL 025

PLANT A DOME SOLIDS TREATMENT

PLANT A DTCW

OUTFALL 027

PLANT A SURFACE RUNOFF

OUTFALL 028

OUTFALL 029

CHALLENGER DITCH

PLANT A DTCW & SURFACE RUNOFF

OUTFALL 021

BAYOU VERMOREL (OLAN DITCH)

[illegible]

INDUSTRIAL CHEMICAL DIVISION

SL 049390

FIGURE 3

DETAIL SCHEMATIC-PLANT "A" DIAPHRAGM CELLS

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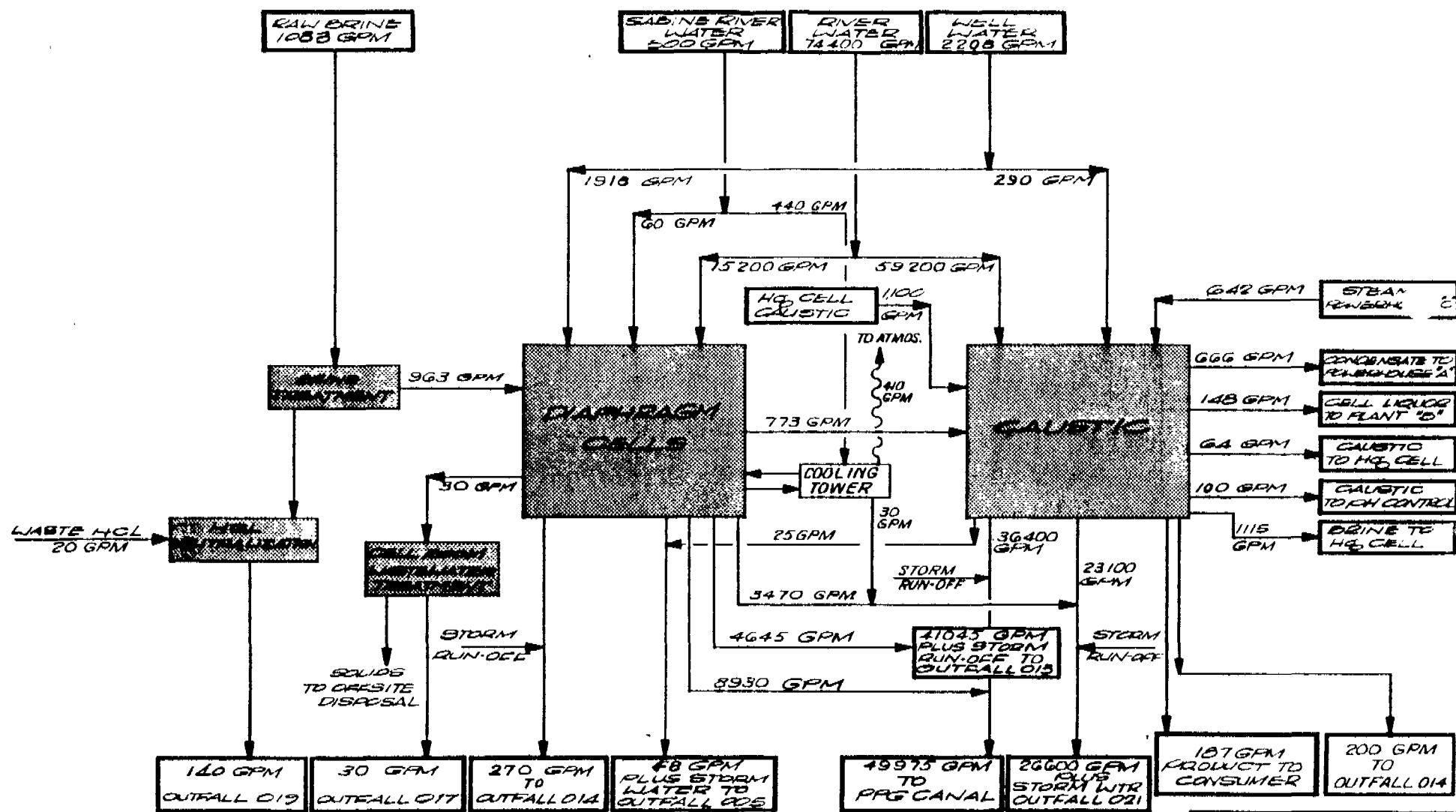
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DETAIL SCHEMATIC- PLANT "A" DIAPHRAGM CELLS

FIGURE 3



DATE APRIL 26, 1983

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FIGURE 4

DETAIL SCHEMATIC-PLANT "A" POWERHOUSES/MERCURY CELLS

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 of 10th Circuit Court, Case No. 92-1113

DETAIL SCHEMATIC-PLANT "A" POWERHOUSES/MERCURY CELLS

FIGURE 4

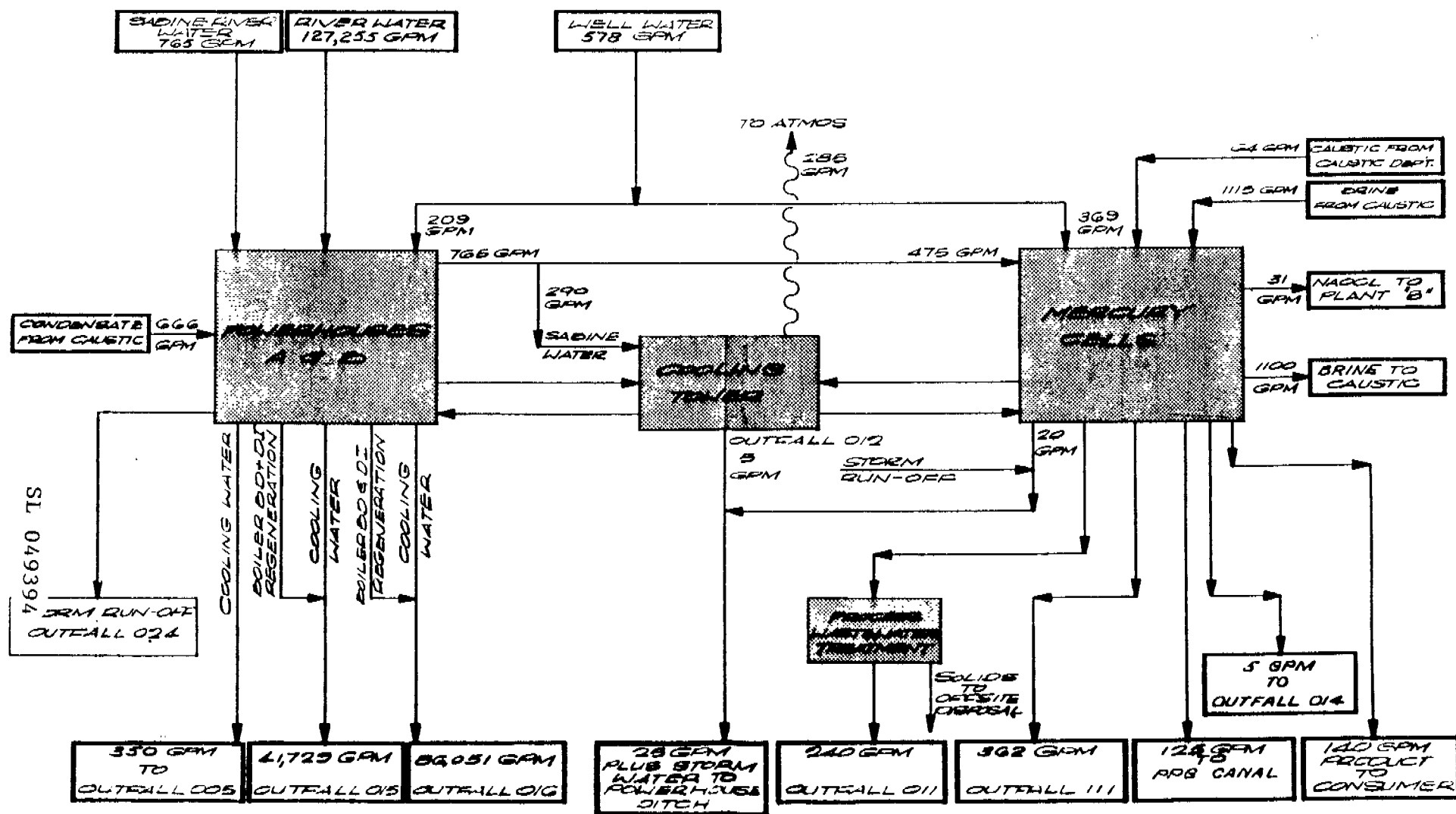


FIGURE 5

DETAIL SCHEMATIC-PLANT "B"

CONFIDENTIAL

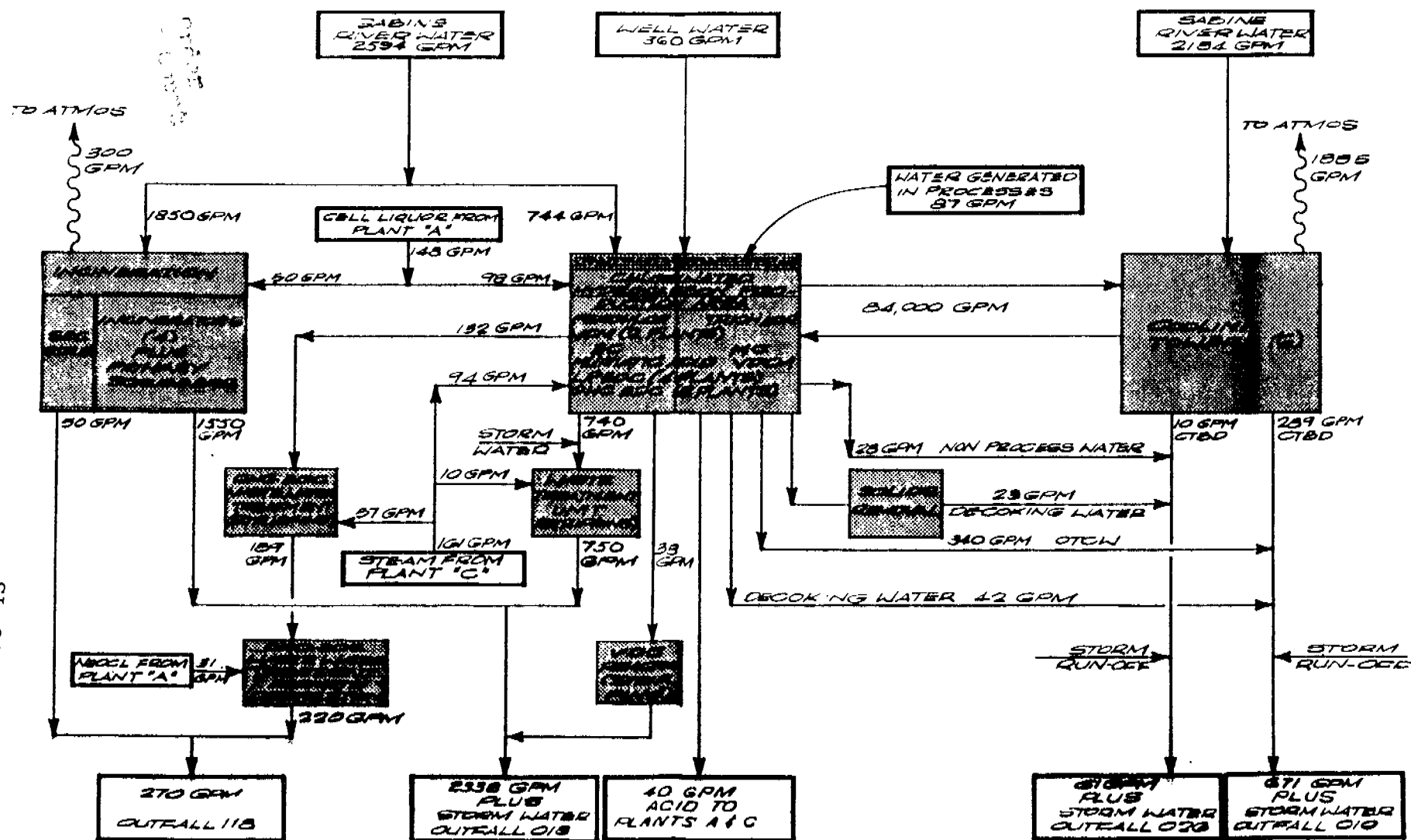
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No. 91-1145

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DETAIL SCHEMATIC - PLANT "B"

FIGURE 5



SL 049396

FIGURE 6

DETAIL SCHEMATIC-PLANT "C" DIAPHRAGM CELL AND
POWERHOUSE

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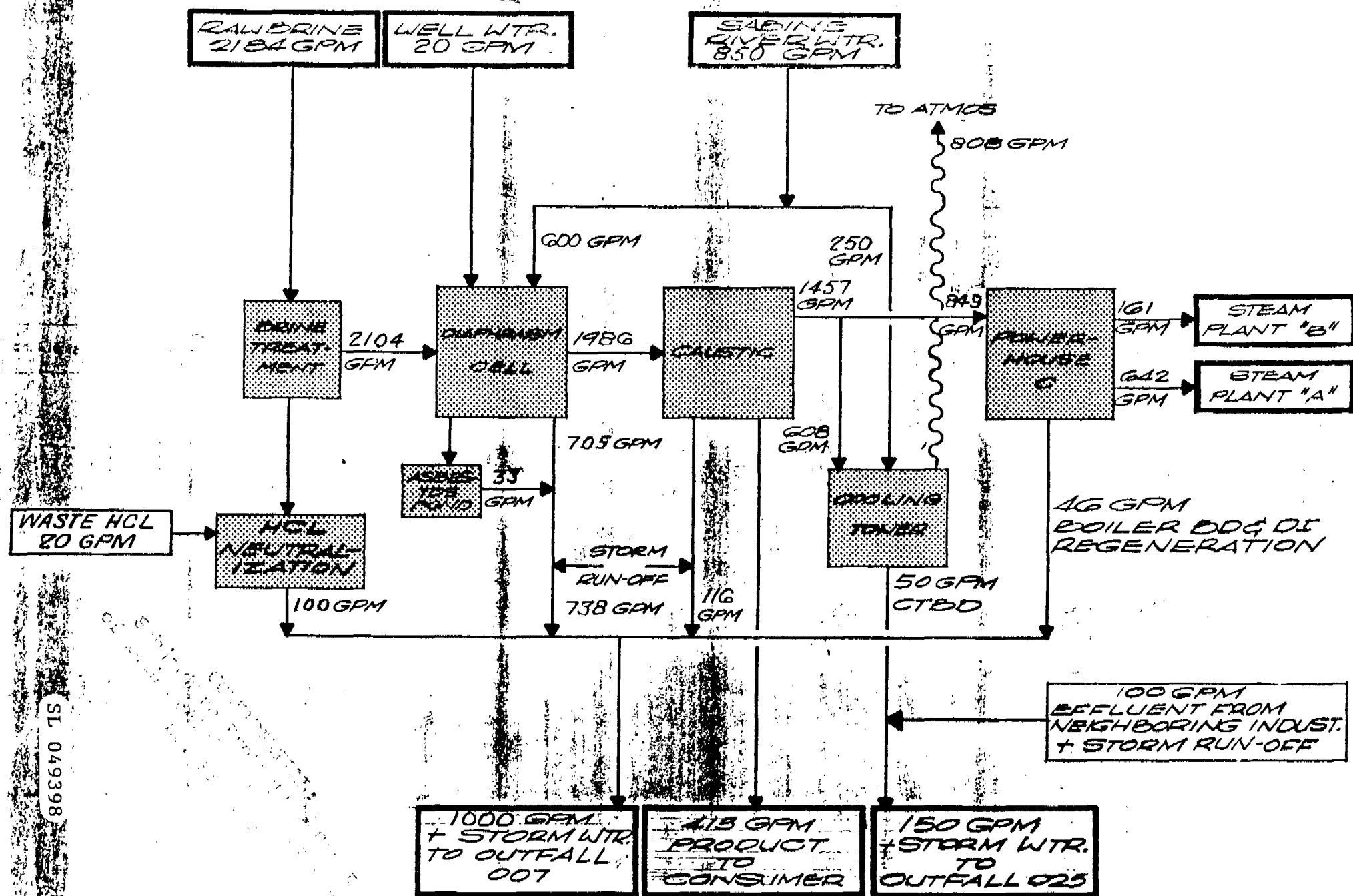
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DETAIL SCHEMATIC-PLANT "C" DIAPHRAGM CELL AND POWERHOUSE

FIGURE 6



DETAIL SCHEMATIC-SILICA PRODUCTS

FIGURE 7

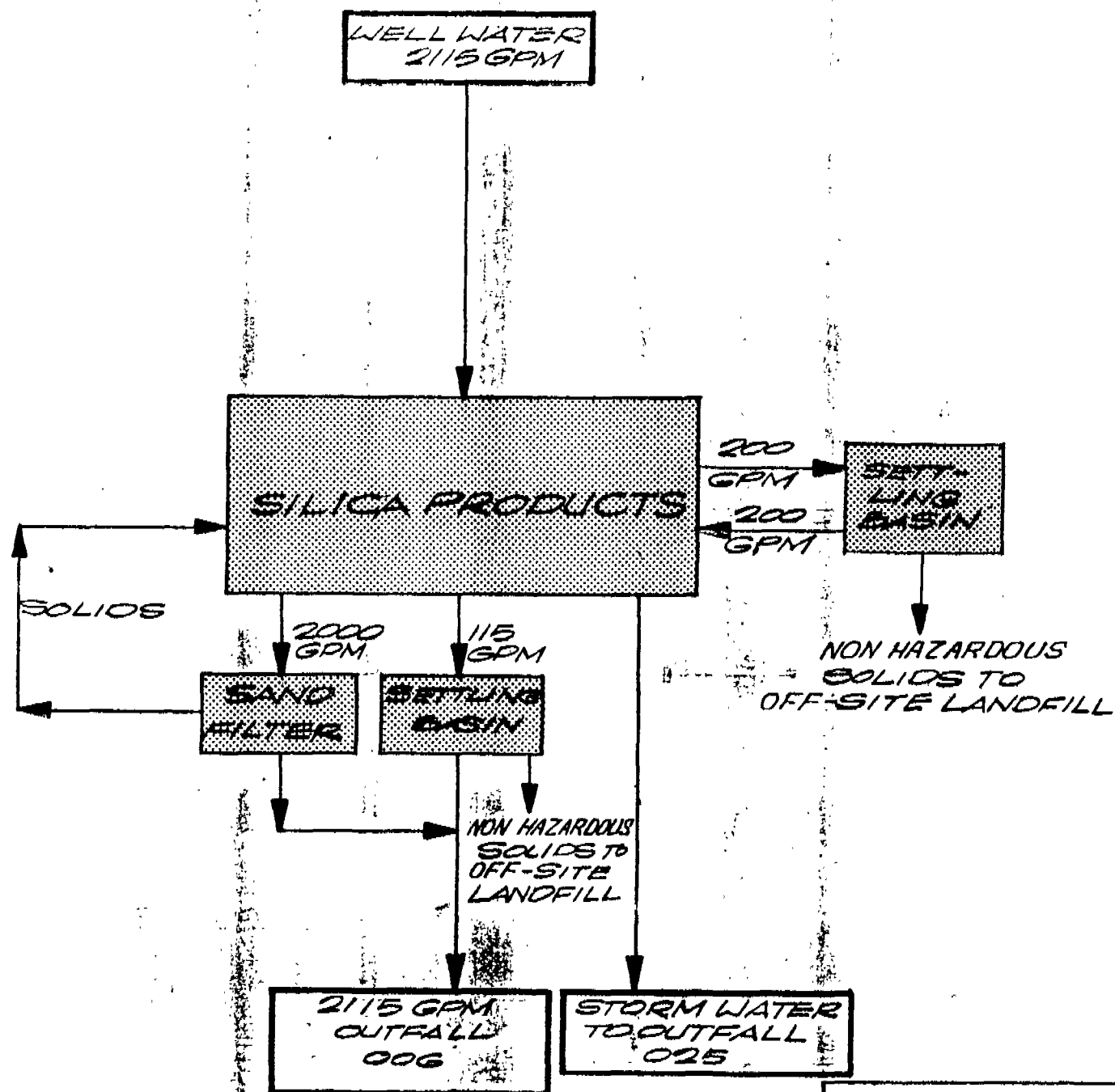
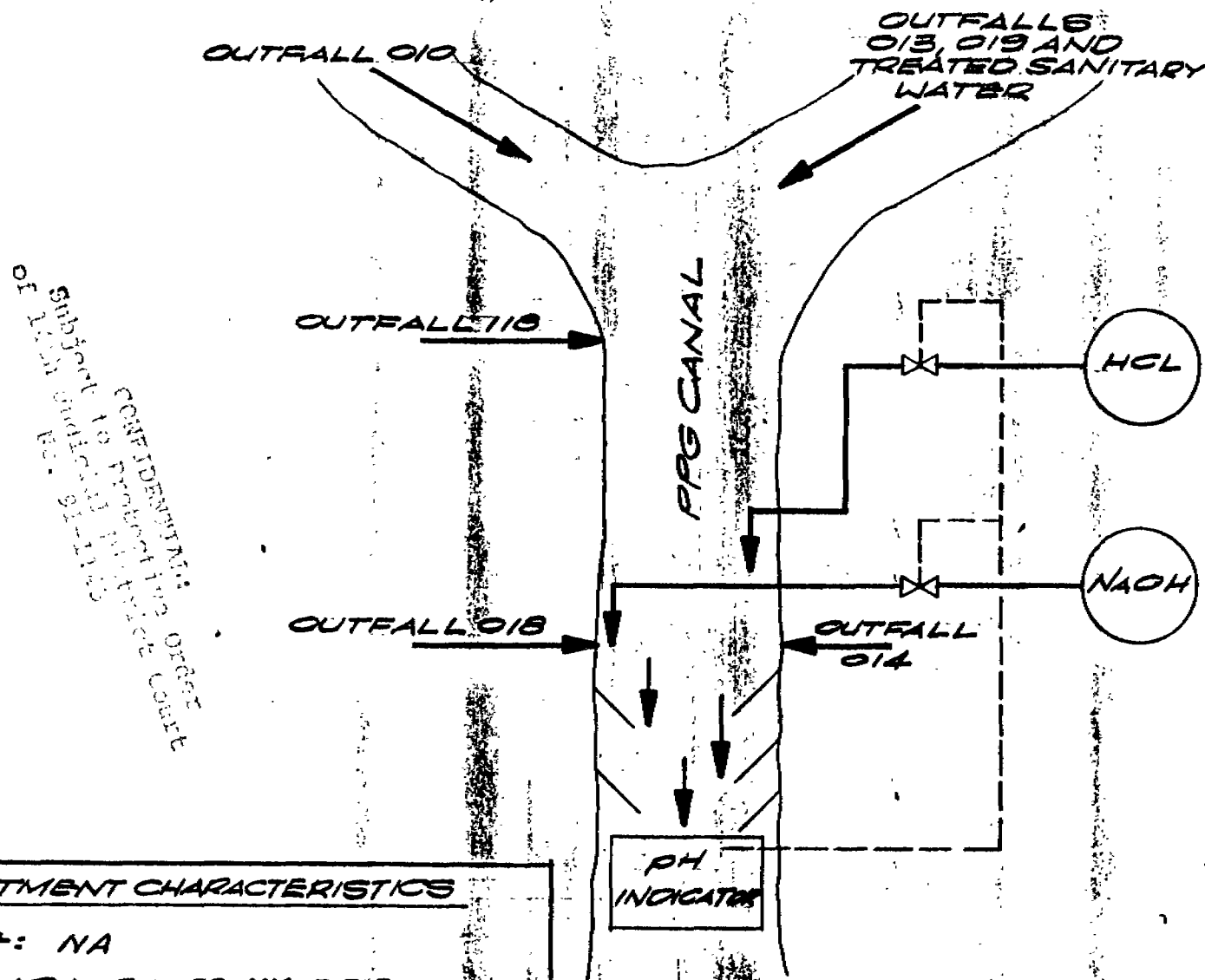


FIGURE 9
COMBINED WASTEWATER NEUTRALIZATION SYSTEM
OUTFALL 001



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 of 10 CFR 2.1100

TREATMENT CHARACTERISTICS

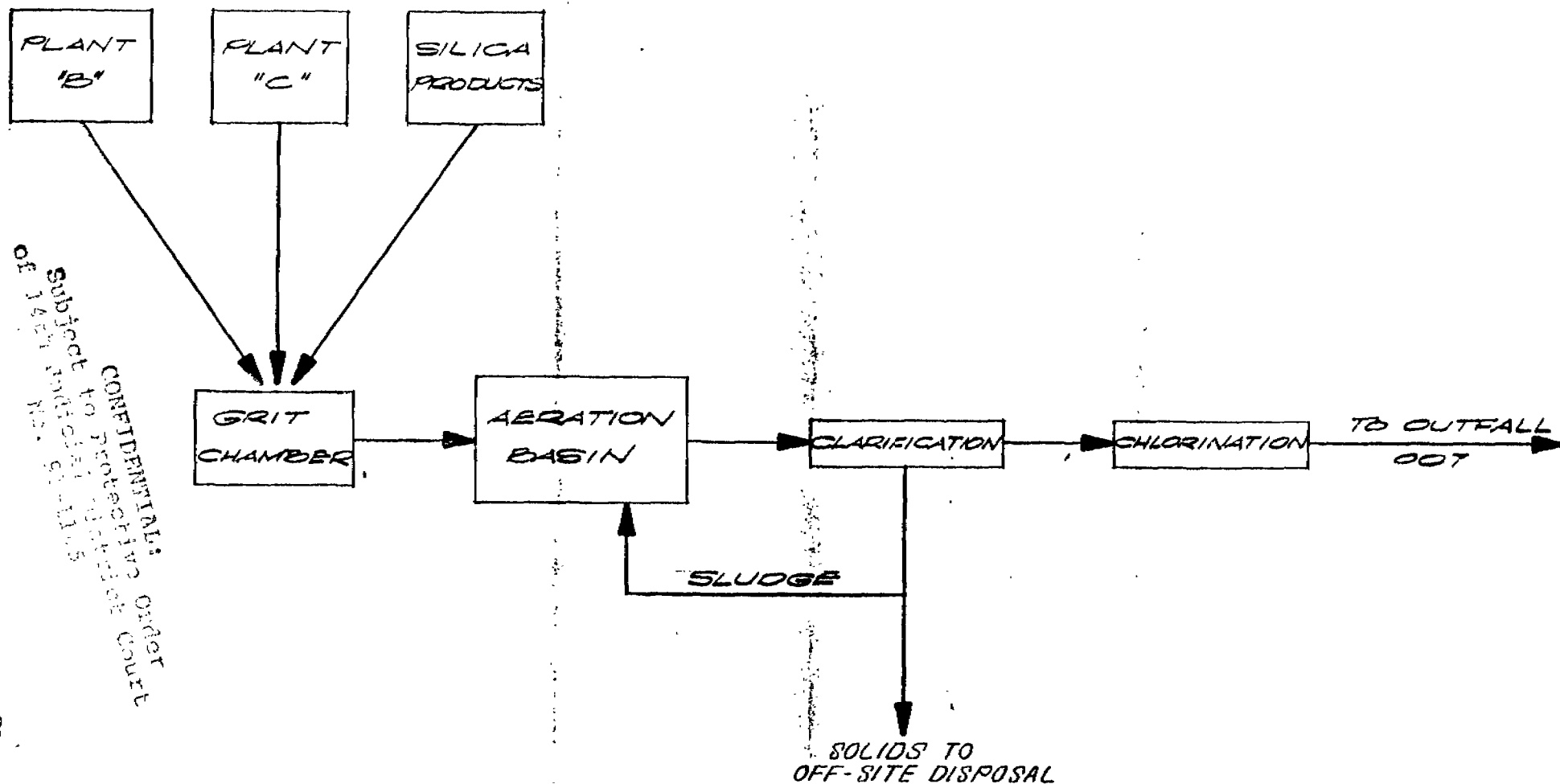
SIZE: NA

FLOWRATE: 83 MM G.R.D.

RETENTION TIME: 0.75 HOURS

FIGURE 12

AEROBIC SANITARY TREATMENT SYSTEM



TREATMENT CHARACTERISTICS

SIZE: 800 POPULATION

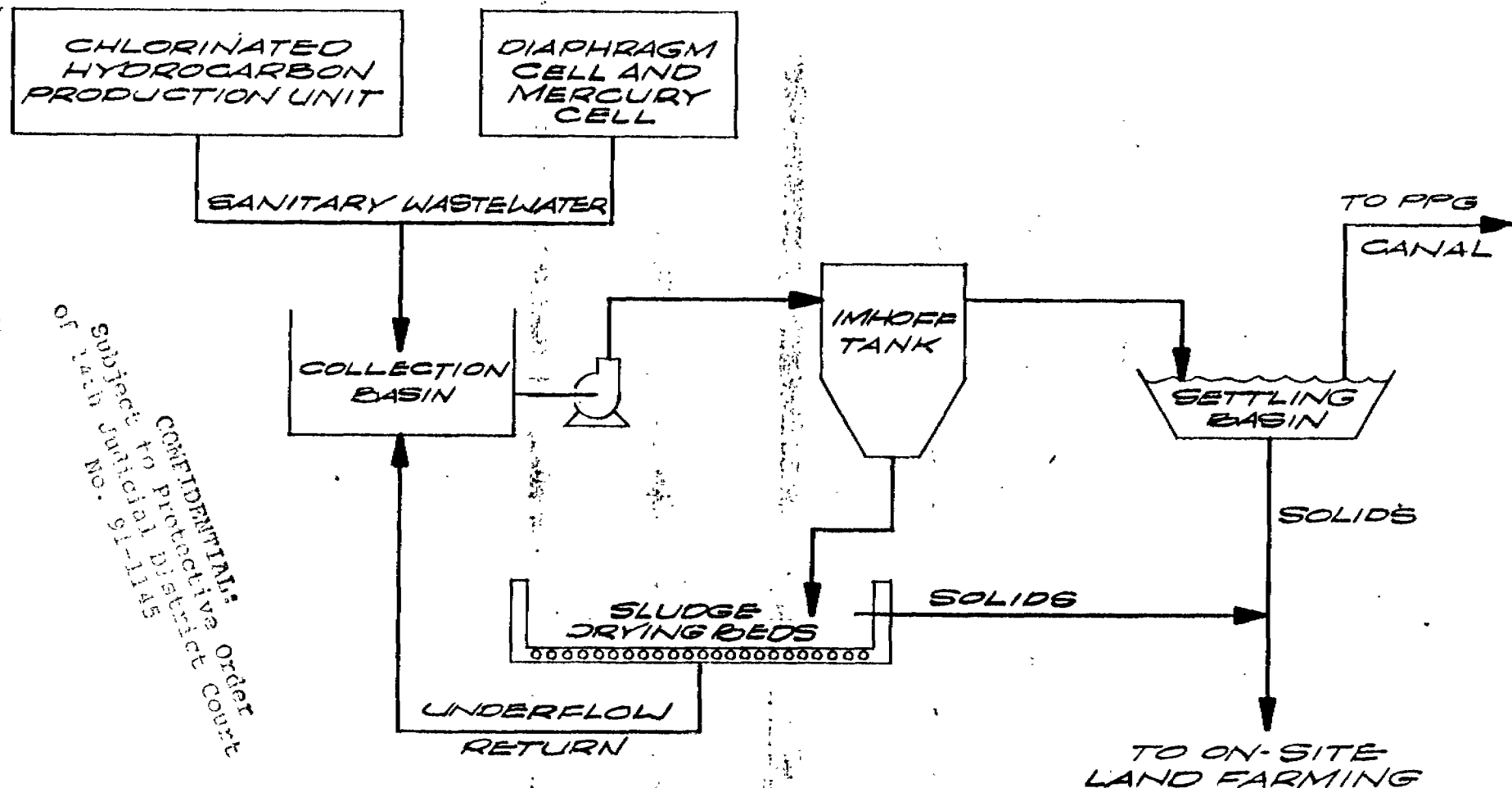
FLOWRATE: 0.02 MMGPD

RETENTION TIME: 24 HOURS

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FIGURE 10
IMHOFF SANITARY WASTEWATER TREATMENT



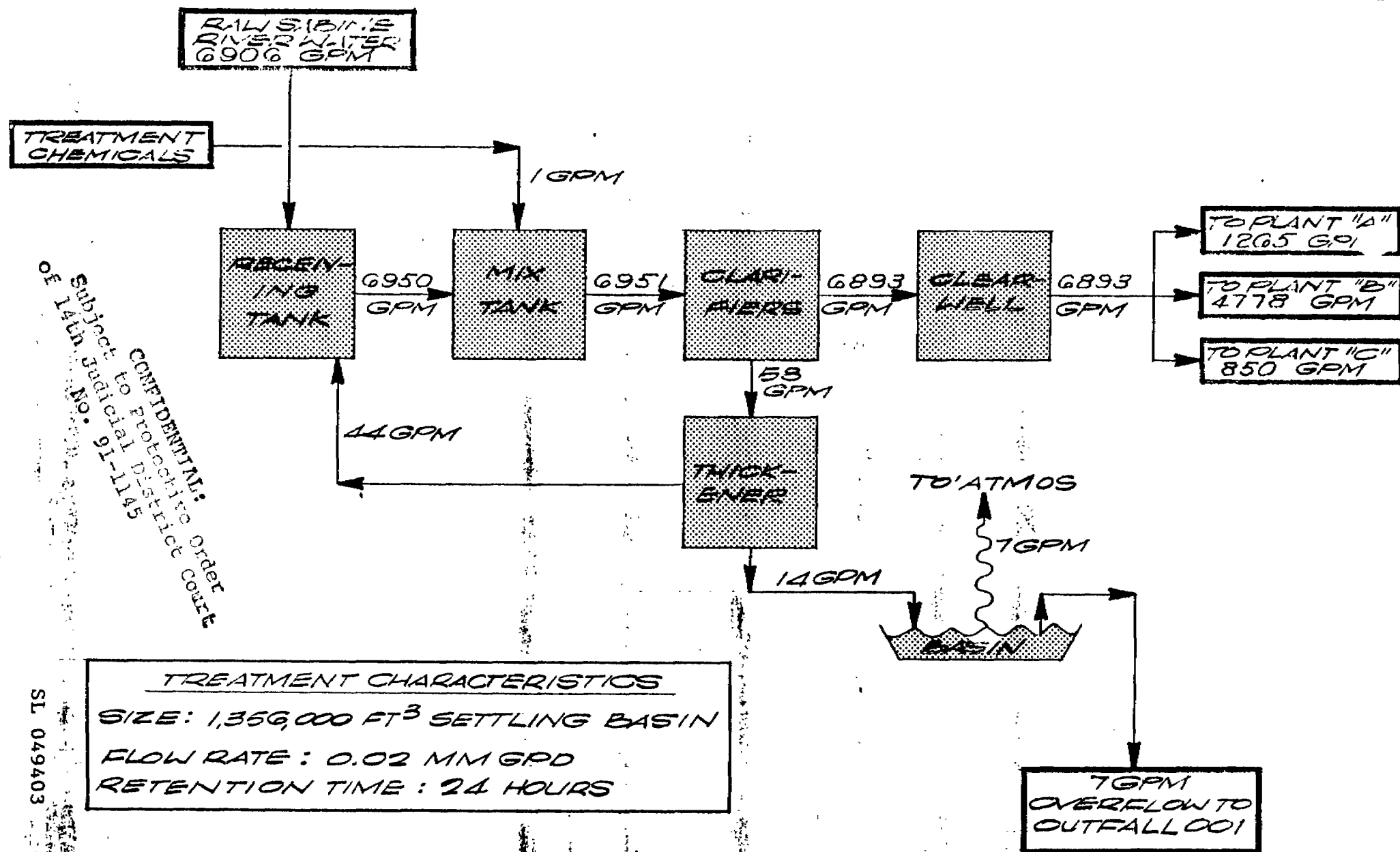
TREATMENT CHARACTERISTICS
 SIZE : 1100 POPULATION
 FLOWRATE : 0.03 MMGPD
 RETENTION TIME : 24 HOURS

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FIGURE 11

SABINE RIVER WATER CLARIFICATION SYSTEM

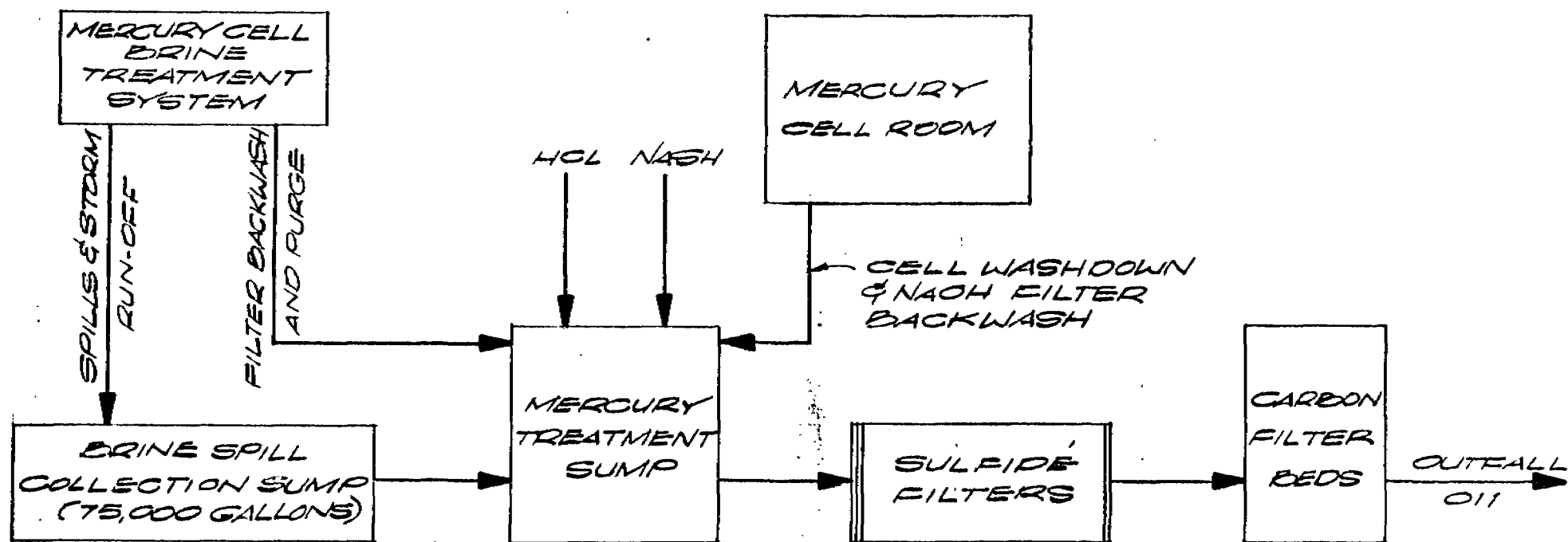


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 No. 91-1145

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TREATMENT CHARACTERISTICS
 SIZE: 1,356,000 FT³ SETTLING BASIN
 FLOW RATE: 0.02 MM GPD
 RETENTION TIME: 24 HOURS

FIGURE 13
MERCURY TREATMENT SYSTEM
PLANT "A"



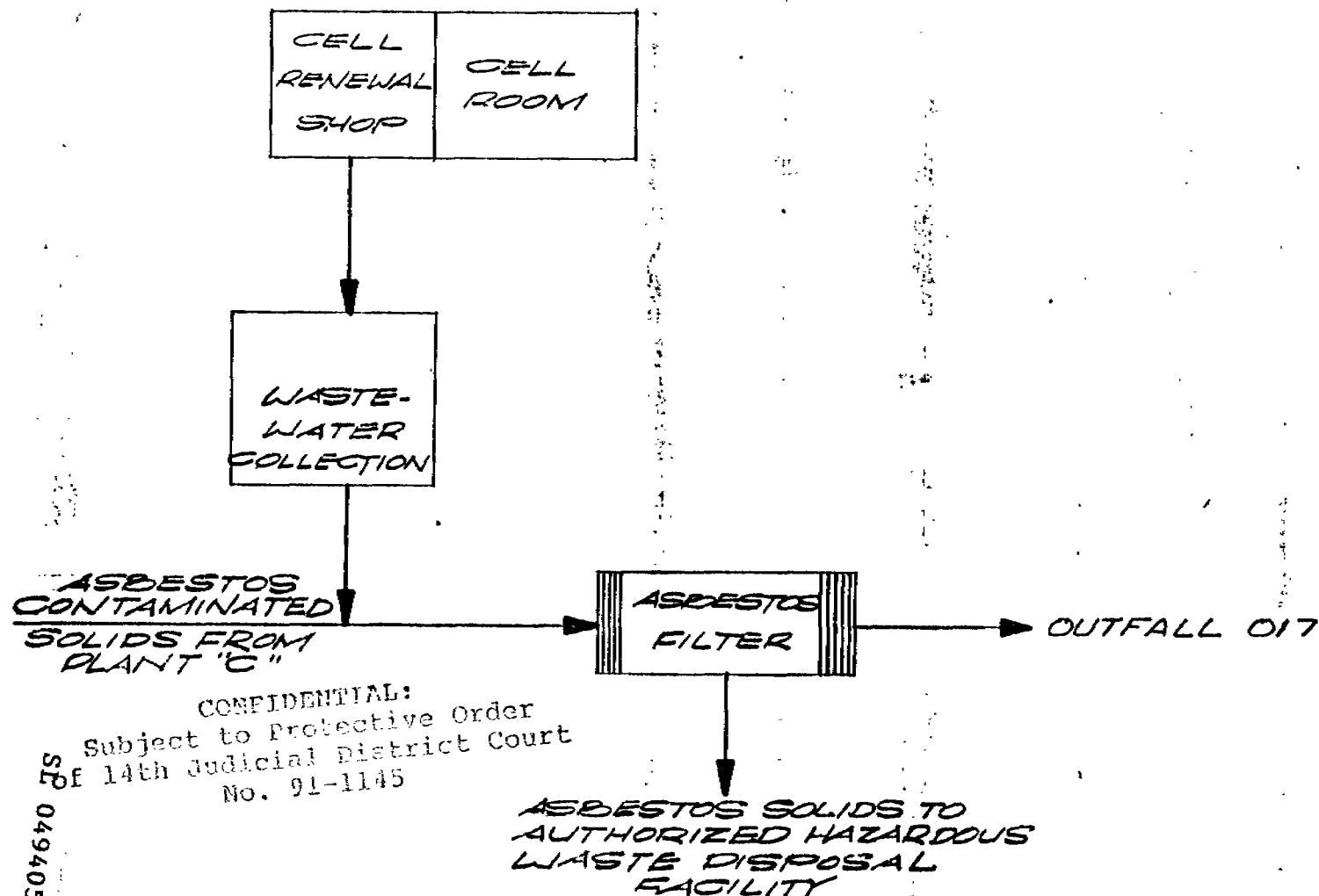
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TREATMENT CHARACTERISTICS

SIZE: 0.72 MMGPD MAXIMUM
THROUGHPUT
FLOW RATE: 0.35 MMGPD
RETENTION TIME: 12 HOURS

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FIGURE 1A
ASBESTOS TREATMENT SYSTEM
PLANT "A"



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TREATMENT CHARACTERISTICS

SIZE: 0.07 MMGPD (MAXIMUM THROUGHPUT)

FLOWRATE: 0.04 MMGPD

RETENTION TIME: 3 HOURS

FIGURE 15

CHLORINATED HYDROCARBON WASTEWATER
COLLECTION AND TREATMENT SYSTEM
PLANT "B"

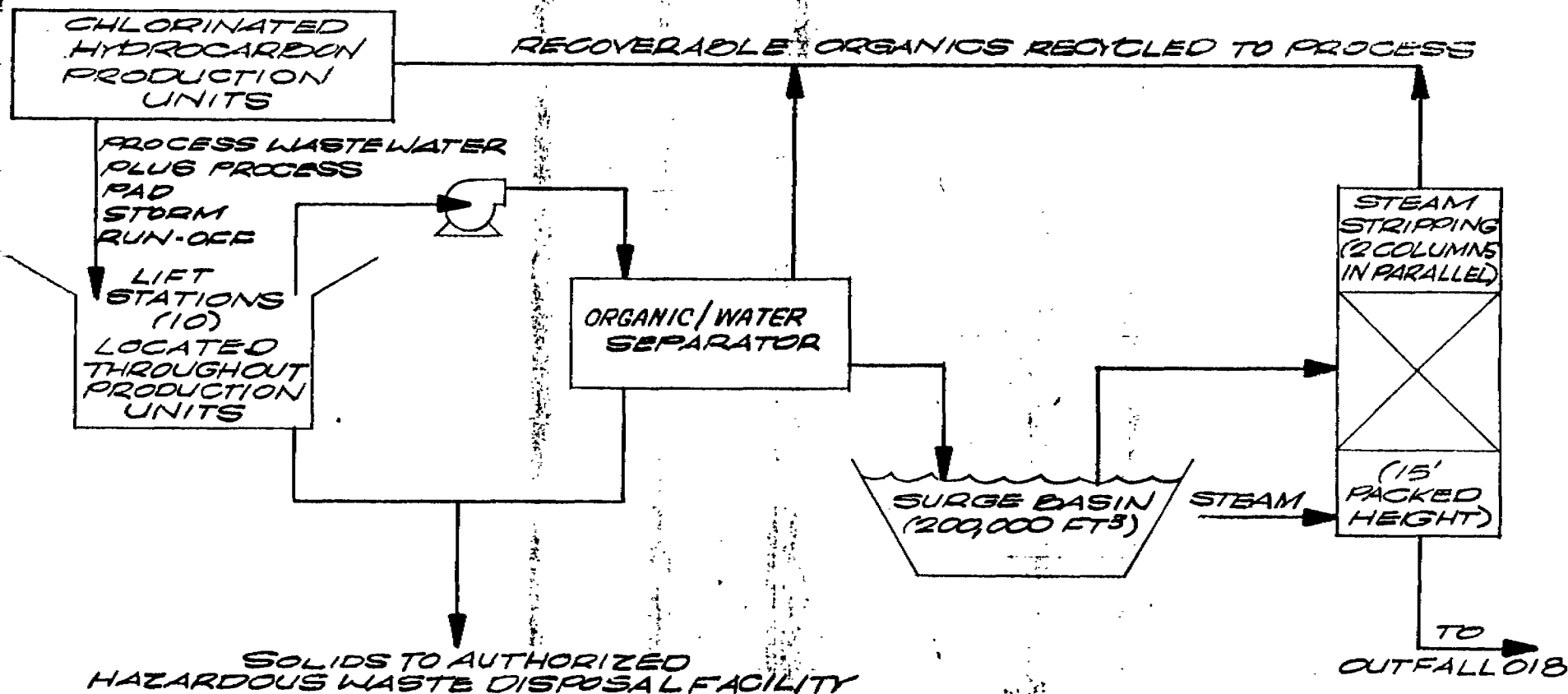
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SL 049406

FIGURE 15 CHLORINATED HYDROCARBON WASTEWATER COLLECTION AND TREATMENT SYSTEM PLANT "B"



TREATMENT CHARACTERISTICS

SIZE: 1.6 MMGPD (MAXIMUM CAPACITY)

FLOWRATE: 1.0 MMGPD

RETENTION TIME: 24 HOURS

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FIGURE 16

OHC-EDC WASTEWATER TREATMENT SYSTEM
PLANT "B"

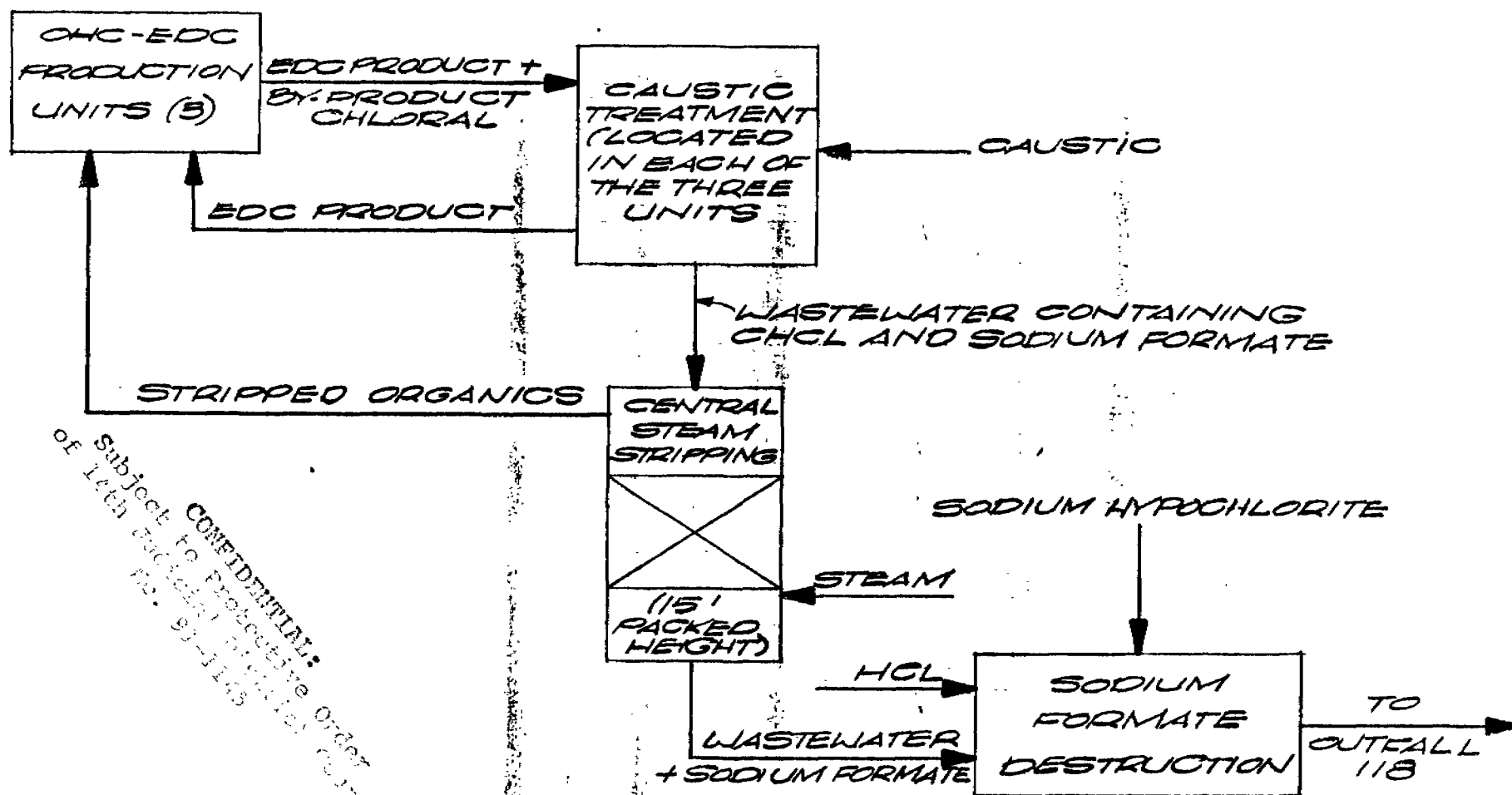
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FIGURE 16
OHC-EDC WASTEWATER TREATMENT SYSTEM
PLANT "D"



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No. 93-1143

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TREATMENT CHARACTERISTICS

SIZE : 0.30 MMGPD (MAXIMUM THROUGHPUT)

FLOWRATE : 0.20 MMGPD

RETENTION TIME : 4 HOURS

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CONFIDENTIAL:
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