The Town of Collierville, TN
Department of Public Services

Stan Joyner, ***Mayor*** **Molly Mehner,** ***Town Administrator***

May 30, 2023

Adam Bonomo
Division of Water Resources
William R. Snodgrass Tennessee Tower, 11th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

Re: Industrial Waste Survey 2023
NPDES Permit # TN0057461
NPDES Permit # TN0078841

Dear Adam Bonomo,

Attached is the Industrial Waste Survey for 2023.

The following are included in the survey:

- Summary of the IWS
- Table 1 Industries and Business investigated for need of a permit
- Table 2 Industrial Waste Survey Recipients
- Table 3 Industries Discharging Non-Domestic Wastewater
- A map of the sewer system for each permitted IU – Attachment A
- Cover letter for Industrial Waste Survey
- A blank copy of an Industrial Waste Discharge Survey
- A blank copy of an Industrial Discharge Permit Application
- A completed Industrial Waste Discharge Survey

If you have any questions or comments, please contact me at:
Office (901) 457-2833
Email ddavis@colliervilletn.gov

Sincerely,

Donal L. Davis
Town of Collierville
Wastewater Treatment Manager
Pretreatment Coordinator

cc: Brittany Gibson, TDEC Memphis-EFO
John Fox, Town of Collierville-Public Utilities Director
David Harrison, Town of Collierville-Assistant Director Public Utilities

Summary of Industrial Waste Survey 2023

1. Initial list of industries:

   Billing for water and sewer service is under the Town of Collierville Finance Department. The department utilizes a software program that allows me to specifically choose the type of water customer I am interested in. For example, I can eliminate residential, church, education and similar customers that should not concern the Pretreatment Program. The report will state the company name, the date the meter was installed, water consumption and if the meter is for an irrigation system.

   The majority of commercial and industrial businesses are concentrated in certain areas of Collierville. I travelled these areas and spoke with foreman, owners, and managers of businesses that appear to be doing industrial activity.

   All business and Industrial users were scrutinized by type of activity. Restaurants, retail, and offices were excluded. Medical and Dialysis facilities were toured for compliance regarding medical wastes.

   I discussed business of concern with the Assistant Director of Public Utilities, David Harrison, to gain insights on industrial hookups and activity.

2. Industries excluded:

   A majority of commercial businesses could be eliminated with the use of the software program used by the Finance Department. Examples include department stores, small retail, corporate offices and distribution warehouses.

3. Industries surveyed:

   ChemStation Midsouth completed a wastewater discharge survey. The facility does not manufacture chemicals. The majority of the chemicals are prepackaged in small to semi-bulk containers. Some chemicals are custom blended at the facility. No chemicals are disposed of into the collection system.

   Choate's Air Conditioning, Heating, and Plumbing is a manufacturing facility where heating and air equipment is assembled. There is no metal finishing on site and no industrial discharges.

   Paint Retailers including: Benjamin Moore, PPG Architectural Coatings, Lowe's and Home Depot were all toured and interviewed. All had administrative procedures to ensure that there are no chemical discharges to sewer.

   CCL Industries manufactures labels for various types of containers. They were toured in 2019 and telephone interviewed in 2023. They have no chemical discharges.

   Hook Point Brewing is a beer microbrewery. I gave them a copy of our sewer discharge survey to fill out and return to me. They have previously been identified for permitting. They have completed all necessary documents and sampling. A permit is currently being prepared pending completion of the 2023 Local Limits formulation.

IPS Corporation manufactures PVC plumbing parts and was toured in 2023. They only discharge non-contact cooling water.

4. Industries in need of a discharge permit:

   Hook Point Brewing will be the only industry in need of a discharge permit.

5. Current industry discharge permits:

   Carrier Corporation has four discharge permits. All four permits have their own permitted discharge point to the sewer. Three permits have their own pretreatment systems. The fourth is cooling tower water discharge. The first permit is for the main manufacturing plant which is considered a categorical metal finisher. The second permit is for soil TCE contamination and the pretreatment system is for condensation collection. The third permit is for TCE contamination of ground water. The permit also requires Total Chromium monitoring with a permit limit. TCE is removed by air strippers and Chromium is not removed. The fourth permit is for their cooling tower water. A portion of the water discharged by the third permit is diverted to the cooling towers. The cooling towers have local limits applied to the discharge.

   Floratine Products is a custom fertilizer blending company. The company discharges batch tank rinse water. Local limits are applied to their discharge along with BOD and TSS surcharges.

5. Conclusion:

   Information collected for the Industrial Waste Survey was used to conclude that Hook Point Brewery continues to be the only industry in need of a discharge permit. It is my opinion that the industries I surveyed and personally toured only discharge domestic wastewater. Composite samples have been collected in majority residential areas to gather background concentrations and also in commercial/industrial areas to identify areas that may need closer examination.

Table 1		
Company	**Physical Location**	**Notes**
Frank Road Landfill	10636 shelton rd	Cat 445
Pyramid Concret Pumping, LLC	W South St	Business Offices - exclude
Motamedi Glas-art	W South Rowlett St	Art - no manufacture - Excluded
Collierville Dental Assoc	w Poplar Ave	Cat 441
Ameristeel	Progress RD	Cat 420?
Jeff Grimes CMC Steel Fabricators	Progress RD	Cat 438?
Althea Metal Fabrication, LLC	E South St	Cat 438?
IPS Corporation	Industrial Park Dr	Visited 5/15/23 non contact cooling water discharges only - Excluded
Mid-South metal Products	Eastley St	Visited 4/18/23 -no metal finishing or waste of concern
Hart Management Company	Washington st	Construction excluded
Porter Paint	w Poplar Ave	No New Paint (non manufacturer) - Excluded
Oak Grove Centre	New Byhalia Rd	Domestic
Dry Clean Super Center	Market Blvd	Chemical handling - ok
FedEx	w Poplar Ave	Survey
Home Depot USA Inc #729	Market Blvd	visited 4/18/23 they have hazmat/chemical spill plan (SOP & training) all spills are hauled away and manifest retained
Jcrews/Collierville Market	w Poplar Ave	Church and school - excluded
Memphis Paints	w Poplar Ave	No New Paint (non manufacturer) - Excluded
Ivan D Harris	Poplar View ln N	Dental - ok
Dental Implant Aesthetic	Poplar View ln N	Cat 441 - ok
DMD MBAPLLC Kathryn A Sneed	Poplar View ln N	Cat 441- ok
Thames Family Dentistry	Poplar View ln N	Cat 441 - ok
Childrens Dental Center	S Houston Levee Rd	Cat 441 - ok
Young Dryve Cleaners	w Poplar Ave	Chemical Handling - ok
Lims Tailoring	w Poplar Ave	Domestic
Sherwin-Williams Co	w Poplar Ave	No New Paint (non manufacturer) - Excluded
Pepsiamericas #13210201	Byhalia rd	Survey
FedEx	W US 72 Hwy	Survey
IPS Corporation	Distribution PKWY	Storage
Sealy 500 Distribution PKWY, LLc	Distribution PKWY	Storage
Sign Matters	Distribution PKWY	Called - No Chemical Discharges
901 Pest Control	Distribution PKWY	Spoke to Richard, They do no repackaging
Mid South Dent Pro	HWY 72 W	Cat 441 - ok
The Mosquito Authority	Chaney Dr	No Repackaging - excluded
Cope Enterprises of Memphis DBA	Chaney Dr	Roof Maxx / storage - Survey
Greenkeeper Lawn Service	Commerce PKWY	No Repackaging - Excluded
Chem Station Mid-South	Progress RD	Survey
C&C Granite	S MT Pleasant Rd	Visited 4/19/2023 - acetone and chemical solution used to treat countertops - no chemical waste down drains
C & M Cabinets & Granite	S MT Pleasant Rd	Visited 4/19/2023 return call 4/19 - no chemical waste - excluded

Table 1		
LLC SSSP Collierville	S MT Pleasant Rd	Storage Company - excluded
Tri-state Guardrail & Sign Co	S MT Pleasant Rd	excluded
Philips Electronics aka Choates	S MT Pleasant Rd	Visited 4/19/2023 - no chemicals - sink and toilet waste only -excluded
Hook Point Brewing Co.	S MT Pleasant Rd	survey
Aeropure LLC	166 Neely	Appliance manufacturer - excluded
LLC Black Knight Press	179 S Main St	Digital Printing no liquid waste - excluded
Applied Labels LLC	116 N Main St	they use machines to apply ink, no waste down drains
Dental Cares	151 Main St N	Cat 441 -ok
Heartland Dental, LLC	151 Main St N	Cat 441 - ok
Lasting Expressions Portaits	100 W Mulberry St	Cat 459 less than 1600ft per day - excluded per rule
Heartland Dental, LLC	1055 w Poplar Ave	Cat 441 - ok
AMVAC Chemical Corp	1155 Halle Park Cir	Offices - excluded
Benevis LLC	1108 Halle Park Cir	Cat 441 - ok
Ettienne R Van Zyl DDS	1108 Halle Park Cir	Cat 441 - ok
Memphis Orthodonic Specialist	2002 S Houston Levee Rd	Cat 441 - ok
Almadale Crossing	2059 S Houston Levee Rd	retail - excluded
Mueller Streamline	150 Schilling Blvd	Corporate Offices - excluded
Schilling Farm Dental	123 Crescent Dr	Cat 441 - ok
Fresenius Medical Care	155 Crescent Dr	Visited no discharges - excluded
The Juice Plus+ Company LLC	140 Crescent Dr	Corporate Offices - excluded
TD Properties LLC	60 Market Center Dr	retail - excluded
Reliance Wholesale Inc	100 Crescent Dr	Pharma Storage - excluded
LLC BIC-Hchem , Helena Industries	225 Schilling Blvd	Corporate Offices - excluded
GMRI Inc	3581 S Houston Levee Rd	Restaurant - excluded
LLC IMA Asset Managers	3670 S Houston Levee Rd	retail - excluded
Mohamed T. Ali	2085 E Winchester BLVD	Cat 441 - ok
Houston Levee Market LLC	9959 Winchester Rd	retail - excluded
G&I VII Retail Carriage LLC	4600 Merchants Park Cir	retail - excluded
Bonanza Inc	10210 Collierville Rd	retail - excluded
FedEx	60 Bailey Station Rd	Visit

Table 2		
Company	**Physical Location**	**Notes**
Cope Enterprises of Memphis DBA	761 Chaney Dr	Roof Maxx/ mini storage returned survey - No discharges
Sealy 500 Distribution PKWY, LLc	500 Distribution PKWY	Survey
Ameristeel	155 Progress RD	Survey - No Discharges
Jeff Grimes CMC Steel Fabricators	155 Progress RD	Survey - No Discharges
Althea Metal Fabrication, LLC	436 E South St	Survey - No Discharges
Frank Road Landfill	10636 shelton rd	Survey
Pepsiamericas #13210201	110 S Byhalia rd	Survey
FedEx	920 W Poplar Ave	Survey
FedEx	235 W US 72 Hwy	Survey
Chem Station Mid-South	729 Progress RD	Survey - No Discharges
Hook Point Brewing Co.	184 S MT Pleasant Rd	Survey - Permit Pending
FedEx	60 Bailey Station Rd	Survey

Table 3

UI's Discharging Non-Domestic Waste Streams

Industry	SIC Code	Flow, GPD	Pollutants	Concentration, mg/L*	Existing Pretreatment	Treatment Plant	Jurisdiction
Carrier Corporation Permit #TOC-001	3585 3499	8,246	Cadmium	<0.002	X	Northwest STP TN078841	Collierville
			Chromium - T	<0.005			
			Chromium, III	<0.010			
			Chromium, VI	<0.010			
			Copper	0.009			
			Lead	<0.006			
			Nickel	0.007			
			Silver	<0.005			
			Zinc	0.145			
			Cyanide	<0.005			
			TSS	52			
			BOD	14			
			TTO	<0.040			
Carrier Corporation Permit #TOC-002		420 (2 day Total)	TCE	<0.001	X	Northwest STP TN078841	Collierville
Carrier Corporation Permit #TOC-005		569,586	TCE	0.00116	X	Northwest STP TN07884	Collierville
			Chromium-T	0.0162			

Table 3

UI's Discharging Non-Domestic Waste Streams

Industry	SIC Code	Flow, GPD	Pollutants	Concentration, mg/L*	Existing Pretreatment	Treatment Plant	Jurisdiction
Carrier Corporation Permit #TOC-009		8,196	Copper	0.12		Northwest STP TN078841	Collierville
			Chromium, III	0.017			
			Chromium, VI	0.011			
			Nickel	<0.005			
			Mercury	<0.0002			
			Zinc	0.09			
			Toluene	<5.0			
			Phenols, Total	0.035			
Floratine Products Permit #TOC-007 **	325314 NAICS	541	Copper	9.21	X	Shelton Rd. STP TN0057461	Collierville
			Cadmium	0.006			
			Chromium, III	<0.050			
			Chromium, VI	<0.050			
			Nickel	0.542			
			Lead	0.014			
			Zinc	66.8			
			Cyanide-T	0.038			
			Phenols - T	0.256			
			BOD	743			
			TSS	1570			

*Most recent Semi-Annual Max Monthly Averages

** Most Recent Pretreatment Inspection Data

The Town of Collierville, TN

Department of Public Utilities

Division of Public Utilities
John Fox, Director
Donal Davis, Wastewater Treatment Manager

Wastewater Pretreatment Program

Industrial Wastewater Discharge Survey

Please Complete and Return by May 12, 2023

Regarding the facility located at the address below in Collierville, TN:

Hook Point Brewing Co.
184 S MT Pleasant Rd

INDUSTRIAL WASTEWATER DISCHARGE SURVEY

SECTION I

AUTHORITY AND FACILITY INFORMATION

Unless stated otherwise, all items are to be filled out completely. If an item is not applicable, indicate by noting "NA".

FACILITY NAME Hook Point Brewing (Production Facility)
MAILING ADDRESS 184 S. Mt Pleasant Rd, Collierville TN 38017
PREMISES ADDRESS 184 S. Mt. Pleasant Rd, Collierville TN 38017

Michael Sadler — **OWNER / PRESIDENT / CEO NAME**
Founder/Owner — **TITLE**

Authorized individual to contact for information pertaining to this application:

NAME Michael Sadler
TITLE Founder/Owner
PHONE # 704-540-4504

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation."

MICHAEL J. SADLER — **PRINTED NAME OF SIGNING OFFICIAL**
PRESIDENT — **TITLE**
[signature] — **SIGNATURE OF SIGNING OFFICIAL**
15 MAY 2023 — **DATE**

Section II
Plant Operations

1) Provide a ***detailed*** description of manufacturing process, facilities or service activities provided on the premises, ***specifically those processes which involve process wastewater or hazardous materials***. Use additional sheets if necessary:
Grain is crushed in a mill and transported by auger to the mash tun, where fresh hot water is added to the mash to activate enzymes and extract sugars. As sugars are extracted, the solution (wort) is transferred to the boil kettle and additional water is ran through the grain to pull most remaining sugar from the mash. The grain is pulled from the first vessel and sidestreamed to totes/barrels for pick up by a local farmer. After hop additions in the boil kettle, the wort is then filtered, cooled, and transferred to a fermentation tank. Yeast is added and conditions monitored for the duration of fermentation. After the process is complete, the yeast is harvested for later use and the resulting beer in the tank is filtered and transferred to a conditioning tank (brite tank) for carbonation to appropriate style and be packaged for distribution and sale. Each tank is cleaned using both manual scrubbing and Clean In Place (CIP) methods with mild dish detergent and/or nitric caustic cleaner and rinsed with clean water.

Is there a wastewater generating process that would involve confidential information? No

2) Principal raw materials used:
Malted barley and other grains; Hops; Yeast; Water; Honey, sugar, or other fermentable sugar sources

3) Chemicals and compounds used (refer to Table 1):
Caustic wash – nitric acid based
Acid Wash – nitric and acetic acid
Hydrogen Peroxide – blended from 32% solution
Peroxyacetic Acid rinse

4) Solvents used: N/A

5) Describe storage practices for the chemicals and solvents listed above:
Labeled and stored in specified area over emergency holding tanks in case of leakage. Use of gloves, eye protection, face shield or mask mandatory. All labeling 704 compliant. MSDS and emergency eye shower are located next to chemical area.

6) List all products manufactured or services provided by your facility along with the corresponding SIC (Standard Industrial Code) number:

Product or Service	SIC Code
Beer, including non-alcoholic	NAICS Code 312120
Soda, tea, coffee	SIC 2082
	SIC 5181
	SIC 3121

7) If this facility is subject to Federal Categorical Pretreatment standards, as per 40 CFR 403, what is the categorical classification(s)? N/A

What is the federal Categorical Compliance Date? N/A

8) Has a baseline report been submitted? No

9) Shift Information:

a. Shifts normally worked:

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st		X	X	X	X	X	X
2nd							X
3rd							

b. Average # of employees/shift

1st 2

2nd

3rd

c. Shift start and end times:

1st 8:00 am – 5:00 pm

2nd

3rd

10) Describe any routine or intermittent cleaning of equipment and facility. Include volumes of water and type of cleaning chemicals used and how the cleaning water is discharged. Include a list of any automatically metered cleaning chemicals.

Small tank cleaning typically involves roughly 10 – 15 gallons of warm or hot water and 4 – 8 ounces of caustic wash recirculated for 30 minutes. Burst rinsing (2 – 3 times) of ½ – 1 gallon of warm water to clear tank and prepare for sanitation. Between 10 – 15 gallons of cool water are added with 4 – 6 ounces of peroxyacetic acid and recirculated for 15 minutes.

Large tank cleaning is similar, with water amounts being 30 – 45 gallons and chemical amounts being 24 – 32 ounces.

Discharge of water and cleaning agents is into a holding tan k where TSS/TDS and pH are measured and adjusted as needed before discharge into public utility sewer.

Table 1

PRIORITY POLLUTANTS

If you use, or dispose of, any of the items on the following two pages, mark them by the following methods:

1. (U) = ITEM IS USED AT THIS LOCATION.
2. (DT) = DISPOSED OF, WITH TREATMENT, TO THE SANITARY SEWER SYSTEM.
3. (DW) = DISPOSED OF, WITHOUT TREATMENT, TO THE SANITRAY SEWER SYSTEM.
4. (DO) = DISPOSED OF, OFF-SITE, AFTER BEING USED AND/OR GENERATED, SUCH AS SLUDGE, LIQUID, ETC.
5. (TU) = ITEM IS TOTALLY USED IN PRODUCTION; THEREFORE NO WASTE PRODUCT IS LEFT.
6. (VU) = ITEM IS VAPORIZED IN USE, AND THEREFORE NO WASTE PRODUCT IS LEFT.

An item may have several different markings after it, depending on the use, treatment and disposal of each by your company.

PRIORITY POLLUTANTS

VOLATILE COMPOUNDS

002	ACROLEIN		088	VINYL CHLORIDE	
004	BENZENE		003	ACRYLONITRILE	
006	CARBON TETRACHLORIDE		047	BROMOFORM	
051	CHLORODIBROMOMETHANE		007	CHLOROBENZENE	
019	2-CHLOROETHYL VINYL ETHER		016	CHLOROETHANE	
048	DICHLOROBROMOMETHANE		023	CHLOROFORM	
010	1,2-DICHLOROETHANE		013	1,1-DICHLOROETHANE	
032	1,2 DICHLOROPROPANE		029	1,1-DICHLOROETHYLENE	
038	ETHYLBENZENE		033	1,3-DICHLOROPROPYLENE	
045	METHYL CHLORIDE		046	METHYL BROMIDE	
015	1,1,2,2-TETRACHLOROETHANE		044	METHYLENE CHLORIDE	
086	TOULENE		085	TETRACHLOROETHYLENE	
011	1,1,1-TRICHLOROETHANE		030	1,2-TRANS-DICHLOROETHYLENE	
087	TRICHLOROETHYLENE		014	1,1,2-TRICHLOROETHANE	

BASE / NEUTRAL COMPOUNDS

001	ACENAOHTHENE		077	ACENAPHTHYLENE	
078	ANTHRACENE		005	BENZIDINE	
072	BENZO (A) ANTHRACENE		073	BENZO (A) PYRENE	
074	BENZO (B) FLUORANTHENE		079	BENZO (GHI) PERYLENE	
075	BENZO (K) FLUORANTHENE		043	BIX (2-CHLOROETHOXY) METHANE	
018	BIS (2-CHLOROETHYL) ETHER		042	BIS (2-CHLOROISOPROPYL ETHER	
017	BIS (CHLOROMETHYL) ETHER		041	4-BROMOPHENYL PHENYL ETHER	
066	BIS (2-ETHYLHEXYL) PHTHALAGE		020	2-CHORONAPHTHALENE	
067	BUTYL BENZYL PHTHALATE		076	CHRYSENE	
025	1,2-DICHLOROBENZENE		040	4-CHLOROPHENYL PHENYL ETHER	
082	DIBENZO (A,H) ANTHRACENE		027	1,4-DICHLOROBENZENE	
026	1,3-DICHLOROBENZENE		070	DIETHYL PHTHALATE	
028	3,3-DICHLOROBENZIDINE		068	DI-N-BUTYL PHTHALATE	
071	DIMETHYL PHTHALATE		036	2,6-DINITROTOLUENE	
035	2,4-DINITROTOULENE		081	PHENANTHRENE	
069	DI-N-OCTYL PHTHALATE		009	HEXACHLOROBENZENE	
039	FLUORANTHENE		053	HEXACHLOROCYCLOPENTADIEN	
080	FLUORENE		083	INDENO (1,2,3-CD) PYRENE	
052	HEXACHLOROBUTADIENE		055	NAPHTHALENE	
012	HEXACHLOROETHANE		061	N-NITROSODIMETHYLAMINE	
054	ISOPHORONE		062	N-NITROSODIPHENYLAMINE	
056	NITROBENZENE		084	PHRENE	
008	1,2,4-TRICHLOROBENZENE		063	N-NITROSODI-N-PROPYLAMINE	
037	1,2-DIPHENYLHYDRAZINE (AS AZOBENZENE)				

PESTICIDES AND PCB's

089	ALDRIN		104	GAMMA-BHC	
102	ALPHA-BHC		105	DELTA-BHC	
103	BETA-BHC		091	CHLORDANE	
092	4,4'-DDT		093	4,4-DDE	
094	4,4'-DDD		090	DIELDRIN	
095	ALPHA-ENDOSULFAN		096	BETA-ENDOSULFAN	
097	ENDOSULFAN SULFATE		098	ENDRIN	
099	ENDRIN ALDEHYDE		113	TOXAPHENE	
106	PCB-1242		109	PCB-1232	
107	PCB-1254		111	PCB-1260	
100	HEPTACHLOR		101	HEPTACHLOR EPOXIDE	

METALS & CYANIDE

114	ANTIMONY		115	ARSENIC	
117	BERYLLIUM		118	CADMIUN	
119	CHROMIUM		120	COPPER	
122	LEAD		123	MERCURY	
124	NICKEL		125	SELENIUM	
126	SILVER		127	THALLIUM	
128	ZINC		121	CYANIDE	

ACID COMPOUNDS

024	CHLOROPHENOL	VU	031	2,4-DICHLOROPHENOL	
034	2,4-DIMETHYPHENOL		060	4.6-DINITRO-O-CRESOL	
059	2,4-DINITROPHENOL		057	2-NITROPHENOL	
058	4-NITROPHENOL		022	P-CHOLRO-M-CRESOL	
021	2,4,6-TRICHLOROPHENOL		065	PHENOL	

Chlorophenol is produced in very small amounts during fermentation, and is off gased and/or reabsorbed before process is complete.

TABLE I (ADDITIONAL ITEMS)

Other Pollutants

Any acids, oils, caustics, fats, grease or any other chemicals NOT LISTED on the previous two pages that you use, generate, or dispose of at this location. List these below and mark them according to the instruction page, title Table 1.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

SECTION III

Water Usage and Discharge Information

1. List **intake** water sources and volumes:

SOURCE	VOLUME	ESTIMATED / MEASURED (Check One)
Municipal Water System	700 - 750 gallons / day	X /
Private Well	gallons / day	/
Surface Water	gallons / day	/
Other:	gallons / day	/

2. List average volume of **discharge** or water:

SOURCE	VOLUME	ESTIMATED / MEASURED (Check One)
City Sewer System	335 - 400 gallons / day	X /
Natural Outlet (NPDES)	gallons / day	/
Water Hauler	gallons / day	/
Evaporation	15 gallons / day	X /
Contained in Product	330 gallons / day	X /
Other (Specify):	gallons / day	/

3. Break down the water **discharged** to the sewer system into the following categories:

SOURCE	VOLUME	ESTIMATED / MEASURED (Check One)
Process Wastestream #1 Mash	120 gallons / day	X /
Process Wastestream #2 Kettle	100 gallons / day	X /
Process Wastestream #3 Cool	100 - 200 gallons / day	X /
Process Wastestream #4 Gen. Cleaning	30 gallons / day	X /

SOURCE	VOLUME	ESTIMATED / MEASURED (Check One)
Contact Cooling	gallons / day	/
Non-contact Cooling Water	100 - 200 gallons / day	X /
Sanitary Water	30 - 50 gallons / day	X /
Boiler Blowdown	gallons / day	/
Other (Describe):	gallons / day	/

4. Describe how each process and contact cooling wastestream is generated (use additional sheets if necessary).

Process wastestreams are each discharged into a holding tank until testing for TDS/TSS and pH is complete. Wastewater is then metered as it is discharged into sewer.

5. Is the discharge to the sewer:
   a. Continuous
   b. Batch X

   If batch discharge, give the frequency of occurrence:
   Once per day, one – three times per week

   What is the average volume in gallons of each batch?
   300 gallons

   What is the maximum volume in gallons of each batch?
   300 gallons

   What is the number of batches each?
   One – three times per week

6. Important: Provide a schematic of the plant flow showing process, floor drains, sanitary, cooling stream, etc., and their point of entry into the sewer system. Indicate on the schematic where you collect effluent samples, and location of pretreatment facility.

7. Do you have automatic sampling equipment or continuous wastewater flow metering equipment currently in use or included in future plans?

a.	Current	Flow Metering	X Yes	☐No
		Sampling Equipment	X Yes	☐No
b.	Planned	Flow Metering	☐Yes	☐No
		Sampling Equipment	☐Yes	☐No

Section IV
Pretreatment

1. Describe any wastewater treatment equipment or process in use:
Storage of wastewater in holding tank; measuring TDS/TSS, volume, and pH prior to release to sewer system. Make adjustments as needed & test by independent lab once a month. Record results and save.

2. Describe any process control testing that is used to monitor the pretreatment equipment and process:
Testing of pH throughout brewing process

3. Describe any additional pretreatment facilities and/or process under consideration. Include a specific time schedule for completion:
N/A

4. Do you dispose of any chemicals, solvents, sludges, or hazardous materials as a result of your processes?

X Yes ☐No

If so, provide a description of each material, giving the composition, annual quantity, and means of disposal.
Chemicals change the pH and provide additional biological and oxygen demands. These are monitored and adjusted to a more neutral pH and the TDS/TSS reduced prior to discharge. Annual quantity is unknown at this time.

5. If a private hauler is used to haul sludges/residuals, provide name and EPA Identification Number:
   Spent grain is the only item, and local farmer hauls waste for livestock or gardening.

6. Where is the ultimate disposal site for sludges/residuals?
   Spent grain for livestock feed.

7. Do you have copies of manifests for waste hauled off site?

   X Yes ☐No

   We will keep a manifest

8. Do you have a spill prevention, control, and countermeasure plan (SPCC) for your facility?

   X Yes ☐No

9. Do you have a solvent management plan for your facility?

   ☐Yes X No

Section V

Wastewater Characteristic

1. Attach any sampling data pertaining to the facility discharge to the sewer system. Explain where and when the sampling was accomplished, what type of sample was taken (i.e., grab, composite), and how many were analyzed.

2. A full scan of pollutants will be required for new discharge permits unless exempted by the Town. The sample must be a 24-hour composite taken during normal production activity and/or representing typical wastewater flows.

3. Describe the exact procedure used to collect sample:

Mailing Address

Please send completed application with all supporting attachments and enclosures to:

Town of Collierville
Public Services Department
Attn: David Harrison
500 Keough Road
Collierville, TN 38017

SECTION V

WASTEWATER CHARACTERISTICS

1. Attach any sampling data pertaining to the facility discharge to the sewer system. Explain where and when the sampling was accomplished, what type of sample was taken (i.e., grab, composite), and how many were analyzed.

2. A full scan of pollutants will be required for new discharge permits unless exempted by the Town. The sample must be a 24-hour composite taken during normal production activity and/or representing typical wastewater flows.

3. Describe the exact procedure used to collect sample:

_____

_____

_____

_____

_____

MAILING ADDRESS

Please send completed application with all supporting attachments and enclosures to:

TOWN OF COLLIERVILLE
PUBLIC SERVICES DEPARTMENT
ATTN: DON DAVIS
500 KEOUGH ROAD
COLLIERVILLE, TN 38017

The Town of Collierville, TN

Department of Public Utilities

Stan Joyner, *Mayor* **Molly Mehner, Town Administrator**

John Fox
Director of Public Utilities

Division of Public Utilities

John Fox, Director
Donal Davis, Wastewater Treatment Manager

Wastewater Pretreatment Program

Industrial Wastewater Discharge Survey

Please Complete and Return by May 12, 2023

INDUSTRIAL WASTEWATER DISCHARGE SURVEY

SECTION I

AUTHORITY AND FACILITY INFORMATION

Unless stated otherwise, all items are to be filled out completely. If an item is not applicable, indicate by noting "NA".

FACILITY NAME _____

MAILING ADDRESS _____

PREMISES ADDRESS _____

_____ _____

OWNER / PRESIDENT / CEO NAME **TITLE**

Authorized individual to contact for information pertaining to this application:

NAME _____

TITLE _____

PHONE # _____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation."

_____ _____

_ _

PRINTED NAME OF SIGNING OFFICIAL **TITLE**

_____ _____

_ _

SIGNATURE OF SIGNING OFFICIAL **DATE**

SECTION II

PLANT OPERATIONS

1) Provide a **detailed** description of manufacturing process, facilities or service activities provided on the premises, **specifically those processes which involve process wastewater or hazardous materials.** Use additional sheets if necessary:

_____

_____

_____

_____

_____

_____

Is there a wastewater generating process that would involve confidential information?

_____

2) Principal raw materials used:

_____

_____

_____

3) Chemicals and compounds used (refer to Table I):

_____

_____

_____

4) Solvents used:

_____

_____

_____

5) Describe storage practices for the chemicals and solvents listed above:

_____

_____

_____

_____

_____

6) List all products manufactured or services provided by your facility along with the corresponding SIC (Standard Industrial Code) number:

PRODUCT OR SERVICE	**SIC CODE**
_____	_____
_	_
_____	_____
_	_
_____	_____
_	_
_____	_____
_	_

7) If this facility is subject to Federal Categorical Pretreatment standards, as per 40 CFR 403, what is the categorical classification(s)?

_____

_____

What is the federal Categorical Compliance Date?

_____

_____

8) Has a baseline report been submitted? _____

_____

9) Shift Information:

a. Shifts normally worked:

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st	_____	_____	_____	_____	_____	_____	_____
2nd	_____	_____	_____	_____	_____	_____	_____
3rd	_____	_____	_____	_____	_____	_____	_____

b. Average # of employees/shift:

1st _____

2nd _____

3rd _____

c. Shift start and end times:

1st _____

2nd _____

3rd _____

10) Describe any routine or intermittent cleaning of equipment and facility. Include volumes of water and type of cleaning chemicals used and how the cleaning water is discharged. Include a list of any automatically metered cleaning chemicals.

_____

_____

TABLE I

PRIORITY POLLUTANTS

If you use, or dispose of, any of the items on the following two pages, mark them by the following methods:

1. (U) = ITEM IS USED AT THIS LOCATION.
2. (DT) = DISPOSED OF, WITH TREATMENT, TO THE SANITARY SEWER SYSTEM.
3. (DW) = DISPOSED OF, WITHOUT TREATMENT, TO THE SANITARY SEWER SYSTEM.
4. (DO) = DISPOSED OF, OFF SITE, AFTER BEING USED AND/OR GENERATED, SUCH AS SLUDGE, LIQUID, ETC.
5. (TU) = ITEM IS TOTALLY USED IN PRODUCTION; THEREFORE NO WASTE PRODUCT IS LEFT.
6. (VU) = ITEM IS VAPORIZED IN USE, AND THEREFORE NO WASTE PRODUCT IS LEFT.

An item may have several different markings after it, depending on the use, treatment and disposal of each by your company.

PRIORITY POLLUTANTS

VOLATILE COMPOUNDS

002	ACROLEIN		088	VINYL CHLORIDE	
004	BENZENE		003	ACRYLONITRILE	
006	CARBON TETRACHLORIDE		047	BROMOFORM	
051	CHLORODIBROMOMETHANE		007	CHLOROBENZENE	
019	2-CHLOROETHYL VINYL ETHER		016	CHLOROETHANE	
048	DICHLOROBROMOMETHANE		023	CHLOROFORM	
010	1,2-DICHLOROETHANE		013	1,1-DICHLOROETHANE	
032	1,2 DICHLOROPROPANE		029	1,1-DICHLOROETHYLENE	
038	ETHYLBENZENE		033	1,3-DICHLOROPROPYLENE	
045	METHYL CHLORIDE		046	METHYL BROMIDE	
015	1,1,2,2-TETRACHLOROETHANE		044	METHYLENE CHLORIDE	
086	TOLUENE		085	TETRACHLOROETHYLENE	
011	1,1,1-TRICHLOROETHANE		030	1,2-TRANS-DICHLOROETHYLENE	
087	TRICHLOROETHYLENE		014	1,1,2-TRICHLOROETHANE	

BASE/NEUTRAL COMPOUNDS

001	ACENAOHTHENE		077	ACENAPHTHYLENE	
078	ANTHRACENE		005	BENZIDINE	
072	BENZO(A)ANTHRACENE		073	BENZO(A)PYRENE	
074	BENZO(B)FLUORANTHENE		079	BENZO(GHI)PERYLENE	
075	BENZO(K)FLUORANTHENE		043	BIS(2-CHLOROETHOXY)METHANE	
018	BIS(2-CHLOROETHYL)ETHER		042	BIS(2-CHLOROISOPROPYL)ETHER	
017	BIS(CHLOROMETHYL)ETHER		041	4-BROMOPHENYL PHENYL ETHER	
066	BIS(2-ETHYLHEXYL)PHTHALATE		020	2-CHORONAPHTHALENE	
067	BUTYL BENZYL PHTHALATE		076	CHRYSENE	
025	1,2-DICHLOROBENZENE		040	4-CHLOROPHENYL PHENYL ETHER	
082	DIBENZO(A,H)ANTHRACENE		027	1,4-DICHLOROBENZENE	
026	1,3-DICHLOROBENZENE		070	DIETHYL PHTHALATE	
028	3,3-DICHLOROBENZIDINE		068	DI-N-BUTYL PHTHALATE	
071	DIMETHYL PHTHALATE		036	2,6-DINITROTOLUENE	
035	2,4-DINITROTOLUENE		081	PHENANTHRENE	
069	DI-N-OCTYL PHTHALATE		009	HEXACHLOROBENZENE	
039	FLUORANTHENE		053	HEXACHLOROCYCLOPENTADIEN	
080	FLUORENE		083	INDENO(1,2,3-CD)PYRENE	
052	HEXACHLOROBUTADIENE		055	NAPHTHALENE	
012	HEXACHLOROETHANE		061	N-NITROSODIMETHYLAMINE	
054	ISOPHORONE		062	N-NITROSODIPHENYLAMINE	
056	NITROBENZENE		084	PYRENE	

008	1,2,4-TRICHLOROBENZENE		063	N-NITROSODI-N-PROPYLAMINE	
037	1,2-DIPHENYLHYDRAZINE (AS AZOBENZENE)				

PESTICIDES AND PCB'S

089	ALDRIN		104	GAMMA-BHC	
102	ALPHA-BHC		105	DELTA-BHC	
103	BETA-BHC		091	CHLORDANE	
092	4,4'-DDT		093	4,4-DDE	
094	4,4'-DDD		090	DIELDRIN	
095	ALPHA-ENDOSULFAN		096	BETA-ENDOSULFAN	
097	ENDOSULFAN SULFATE		098	ENDRIN	
099	ENDRIN ALDEHYDE		113	TOXAPHENE	
106	PCB-1242		109	PCB-1232	
107	PCB-1254		111	PCB-1260	
100	HEPTACHLOR		101	HEPTACHLOR EPOXIDE	

METALS & CYANIDE

114	ANTIMONY		115	ARSENIC	
117	BERYLLIUM		118	CADMIUN	
119	CHROMIUM		120	COPPER	
122	LEAD		123	MERCURY	
124	NICKEL		125	SELENIUM	
126	SILVER		127	THALLIUM	
128	ZINC		121	CYANIDE	

ACID COMPOUNDS

024	CHLOROPHENOL		031	2,4-DICHLOROPHENOL	
034	2,4-DIMETHYPHENOL		060	4,6-DINITRO-O-CRESOL	
059	2,4-DINITROPHENOL		057	2-NITROPHENOL	
058	4-NITROPHENOL		022	P-CHOLRO-M-CRESOL	
021	2,4,6-TRICHLOROPHENOL		065	PHENOL	

TABLE I (ADDITIONAL ITEMS)

OTHER POLLUTANTS

Any acids, oils, caustics, fats, grease or any other chemicals NOT LISTED on the previous two pages that you use, generate, or dispose of at this location. List these below and mark them according to the instruction page, title Table I.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

SECTION III

Water Usage and Discharge Information

1. List **intake** water sources and volumes:

SOURCE	VOLUME	ESTIMATED/MEASURED (CHECK ONE)
Municipal Water System	_____ gallons/day	_____/_____
Private Well	_____ gallons/day	_____/_____
Surface Water	_____ gallons/day	_____/_____
Other	_____ gallons/day	_____/_____

2. List average volume of **discharge** or water:

SOURCE	VOLUME	ESTIMATED/MEASURED (CHECK ONE)
City Sewer System	_____ gallons/day	_____/_____
Natural Outlet (NPDES)	_____ gallons/day	_____/_____
Water Hauler	_____ gallons/day	_____/_____
Evaporation	_____ gallons/day	_____/_____
Contained in Product	_____ gallons/day	_____/_____
Other (Specify)	_____ gallons/day	_____/_____

3. Break down the water **discharged** to the sewer system into the following categories:

SOURCE	VOLUME	ESTIMATED/MEASURED (CHECK ONE)
Process Wastestream #1	_____ gallons/day	_____/_____
Process Wastestream #2	_____ gallons/day	_____/_____
Process Wastestream #3	_____ gallons/day	_____/_____
Process Wastestream #4	_____ gallons/day	_____/_____

SOURCE	VOLUME	ESTIMATED/MEASURED (CHECK ONE)
Contact Cooling	_____ gallons/day	_____/_____
Non-contact Cooling Water	_____ gallons/day	_____/_____

Sanitary Water	_____ gallons/day	_____/_____
Boiler Blowdown	_____ gallons/day	_____/_____
Other (Describe)	_____ gallons/day	_____/_____

4. Describe how each process and contact cooling wastestream is generated (use additional sheets if necessary).

_____

_____

_____

_____

_____

_____

5. Is the discharge to the sewer:

   a. Continuous _____

   b. Batch _____

   If batch discharge, give the frequency of occurrence:

   _____

   What is the average volume in gallons of each batch?

   _____

   What is the maximum volume in gallons of each batch?

   _____

   What is the number of batches each?

   _____

6. Important: Provide a schematic of the plant flow showing process, floor drains, sanitary, cooling stream, etc., and their point of entry into the sewer system. Indicate on the schematic where you collect effluent samples, and location of pretreatment facility.

7. Do you have automatic sampling equipment or continuous wastewater flow metering equipment currently in use or included in future plans?

   a. Current: Flow Metering ☐ Yes ☐ No

      Sampling Equipment ☐ Yes ☐ No

   b. Planned: Flow Metering ☐ Yes ☐ No

      Sampling Equipment ☐ Yes ☐ No

SECTION IV

PRETREATMENT

1. Describe any wastewater treatment equipment or process in use:

   _____

   _____

   _____

   _____

2. Describe any process control testing that is used to monitor the pretreatment equipment and process:

   _____

   _____

   _____

3. Describe any additional pretreatment facilities and/or process under consideration. Include a specific time schedule for completion:

   _____

   _____

   _____

4. Do you dispose of any chemicals, solvents, sludges, or hazardous materials as a result of your processes?

   ☐ Yes ☐ No

   If so, provide a description of each material, giving the composition, annual quantity, and means of disposal.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

5. If a private hauler is used to haul sludges/residuals, provide name and EPA Identification Number:

_____

_____

_____

_____

_____

6. Where is the ultimate disposal site for sludges/residuals?

_____

_____

_____

7. Do you have copies of manifests for waste hauled off site?

☐ Yes ☐ No

8. Do you have a spill prevention, control, and countermeasure plan (SPCC) for your facility?

☐ Yes ☐ No

9. Do you have a solvent management plan for your facility?

☐ Yes ☐ No

SECTION V

WASTEWATER CHARACTERISTICS

1. Attach any sampling data pertaining to the facility discharge to the sewer system. Explain where and when the sampling was accomplished, what type of sample was taken (i.e., grab, composite), and how many were analyzed.

2. A full scan of pollutants will be required for new discharge permits unless exempted by the Town. The sample must be a 24-hour composite taken during normal production activity and/or representing typical wastewater flows.

3. Describe the exact procedure used to collect sample:

   _____

   _____

   _____

   _____

   _____

MAILING ADDRESS

Please send completed application with all supporting attachments and enclosures to:

TOWN OF COLLIERVILLE
PUBLIC SERVICES DEPARTMENT
ATTN: DON DAVIS
500 KEOUGH ROAD
COLLIERVILLE, TN 38017

Town of Collierville
Department of Public Services

Stan Joyner, *Mayor* **Molly Mehner, Town Administrator**

Division of Public Utilities

John Fox, Director Public Utilities
Donal Davis, Wastewater Treatment Manager

Wastewater Pretreatment Program

INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATIION

Town of Collierville, TN
Department of Public Services
Department of Public Utilities – Pretreatment Program

INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

I. GENERAL INFORMATION

1. Facility Name: _____

   a. Operator Name: _____

   b. Is the operator identified in 1.a., the owner of the facility?

      Yes ___ No ___

      If no, provide the name and address of the operator and submit a copy of the contract and/or other documents indicating the operator's scope of responsibility for the facility.

      _____

2. Facility Address:

   Street: _____

   City: _____ State: __ Zip: _____

3. Business Mailing Address:

   Street or P.O. Box: _____

   City: _____ State: __ Zip: _____

4. Designated signatory authority of the facility:

   (Attach similar information for each authorized representative)

   Name: _____

   Title: _____

   Address: _____

   City: _____ State: __ Zip: _____

   Phone #: _____

5. Designated facility contact:

   Name: _____

Title: _____

Phone #: _____

II. FACILITY OPERATIONAL CHARACTERISTICS

1. Shift Information

Work Days	[ ] Mon.	[ ] Tues.	[ ] Wed.	[ ] Thurs.	[ ] Fri.	[ ] Sat.	[ ] Sun.
Shifts per work day:	____	____	____	____	____	____	____
Empl's per shift: 1st	____	____	____	____	____	____	____
2nd	____	____	____	____	____	____	____
3rd	____	____	____	____	____	____	____
Shift start and end times: 1st	____	____	____	____	____	____	____
2nd	____	____	____	____	____	____	____
3rd	____	____	____	____	____	____	____

2. Indicate whether the business activity is:

[ ] Continuous through the year, or

[ ] Seasonal – "X" the months of the year during which the business activity occurs

[ ] Jan	[ ] Feb	[ ] Mar	[ ] Apr	[ ] May	[ ] June	[ ] July	[ ] Aug	[ ] Sept	[ ] Oct	[ ] Nov	[ ] Dec

COMMENTS: ____

3. Indicate whether the facility discharge is:

[ ] Continuous through the year, or

[ ] Seasonal – "X" the months of the year during which the business activity occurs

[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec

COMMENTS: ____

4. Does the operation shut down for vacations, maintenance, or other reasons?

   Yes [ ] No [ ]

   If yes, indicate reasons and period when shutdown occurs:

   ____

5. List types and amounts (mass or volume per day) or raw materials used or planned for use (Attach list if needed):

Type	Amount
____	____
____	____
____	____
____	____
____	____
____	____
____	____
____	____

6. List types and quantities of chemicals used or planned for use (Attach list if needed). Include copies of Manufacturer's Safety Data Sheets (if available) for all chemicals identified.

Chemical	Quantity
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

III. BUSINESS ACTIVITY

1. If your facility employs or will be employing processes in any of the industrial categories or business activities listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), place a check beside the category of business activity (check all that apply).

Industrial Categories

[ ] Aluminum Forming
[ ] Asbestos Manufacturing
[ ] Battery Manufacturing
[ ] Can Making
[ ] Carbon Black
[ ] Coal Mining
[ ] Coil Coating
[ ] Copper Forming
[ ] Electric / Electronic Components Manufacturing
[ ] Electroplating
[ ] Feedlots
[ ] Fertilizer Manufacturing
[ ] Foundries (Metal Molding and Casting)
[ ] Glass Manufacturing
[ ] Grain Mills
[ ] Inorganic Chemicals
[ ] Iron and Steel
[ ] Leather Tanning and Finishing
[ ] Nonferrous Metal Forming
[ ] Nonferrous Metal Manufacturing
[ ] Organic Chemicals Manufacturing
[ ] Paint and Ink Formulating
[ ] Paving and Roofing Manufacturing
[ ] Pesticides Manufacturing
[ ] Petroleum Refining
[ ] Pharmaceutical
[ ] Plastic and Synthetic Materials Manufacturing
[ ] Plastic Processing Manufacturing
[ ] Porcelain Enamel
[ ] Pulp, Paper, and Fiberboard Manufacturing
[ ] Rubber
[ ] Soap and Detergent Manufacturing
[ ] Steam Electric
[ ] Sugar Processing
[ ] Textile Mills
[ ] Timber Products

[ ] Metal Finishing

A facility with processes inclusive in these business areas may be covered by Environmental Protection Agency's (EPA) categorical pretreatment standards. These facilities are termed "categorical users".

2. Give a brief description of all operations at this facility including primary products or services (Attach additional sheets if necessary):
   _____

3. Indicate applicable Standard Industrial Classification (SIC) for all processes. If more than one applies, list in descending order of importance.

   a. _____
   b. _____
   c. _____
   d. _____
   e. _____

4. PRODUCT VOLUME

PRODUCT (Brand name)	PAST CALENDAR YEAR Amounts per Day (Daily Units)		ESTIMATE THIS CALENDAR YEAR Amount per Day (Daily Units)	
	Average	Maximum	Average	Maximum

____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

IV. DESCRIPTION OF SEWERS AND TIE-INS TO THE CITY SYSTEM

1. Are sanitary and industrial process sewers separated?

   ☐ Yes ☐ No

2. Are any roof or storm water catch basins connected to either process or sanitary sewers?

   ☐ Yes ☐ No

If yes, how many:

____

3. Are drawings or sketches available, which show location, sizes, and elevations of sewers, both process and sanitary (storm if applicable) sewers, with respect to building and streets?

Yes No

4. Are any flow measuring devices presently installed in outfall sewers?

Yes No

V. PRETREATMENT FACILITIES:

1. Is any type of pretreatment provided for process liquid wastes before discharge to sanitary sewer, storm drain, or surface water?

Yes No

If yes, describe in detail and furnish flow diagrams noting unit processes if applicable.

____

2. Do you monitor your wastewater?

Yes No

If yes, describe monitoring program, include frequency and parameters monitored.

____

3. Is any waste sludge generated during the process operation or pretreatment?

Yes No

If yes, describe the sludge(s) and how they are disposed of. If hauled away by a commercial service, give name and address:

_____

Volume of sludge produced:

Max.	_____	Cu. Yds/day
Avg.	_____	Cu. Yds/day
Min.	_____	Cu. Yds/day

Weight of sludge produced:

Max.	_____	Lbs/day
Avg.	_____	Lbs/day
Min.	_____	Lbs/day

VI. ANTICIPATED INDUSTRIAL GROWTH

Industry: _____

Water Consumption: _____

VII. If any of the company's operating locations have any wastewater discharging to a storm drain or surface water (i.e. not going to the city sanitary sewer), indicate if a NPDES permit has been applied for or is effect.

Yes No

VIII. Please give the indicated information for substances in the following groups, if they are ever used or stored or any purpose at any of the operating locations of this company. This includes both use and storage of a substance by itself or as a constituent or ingredient in other materials. Use additional pages if needed.

- Group A: Any substance(s) listed in Table 1 (Attached). Indicate Yes or No, and if yes, make a check mark by the appropriate substance(s) on Table 1.

  Yes No

- Group B: List any other substance(s) not in Table 1, which are known or thought to be (by our company) toxic, corrosive, flammable, explosive or otherwise hazardous.

IX. TREATMENT

1. Is any form of wastewater treatment (See list below) practiced at this facility?

   [ ] Yes [ ] No

2. Is any form of wastewater treatment (Or changes to an existing wastewater treatment) planned for this facility within the next three years?

   [ ] Yes [ ] No

3. Treatment devices or processes used or proposed for treating wastewater or sludge (Check as many as appropriate)

   [ ] Air Flotation
   [ ] Centrifuge
   [ ] Chemical Precipitation
   [ ] Chlorination
   [ ] Cyclone
   [ ] Filtration
   [ ] Flow Equalization
   [ ] Grease or Oil Separation, type: _____
   [ ] Grease Trap
   [ ] Grinding Filter
   [ ] Grit Removal
   [ ] Ion Exchange
   [ ] Neutralization, pH Correction
   [ ] Ozonation
   [ ] Reverse Osmosis
   [ ] Screen
   [ ] Sedimentation
   [ ] Septic tank
   [ ] Solvent Separation
   [ ] Spill Protection
   [ ] Sump
   [ ] Biological Treatment, type: _____
   [ ] Rainwater Diversion or Storage
   [ ] Other Chemical Treatment, type: _____
   [ ] Other Physical Treatment, type: _____
   [ ] Other, type: _____

X. PROCESS DESCRIPTION

1. If any of the Process Wastes in Table 2 (Attached) are generated by this company, indicate yes and make a check mark beside the waste(s) on Table 2.

   Yes No

2. Describe manufacturing processes which generate wastewaters and other liquid wastes. Including liquid volume used and wasted, type of discharge (Batch or continuous), and where discharged. Use additional pages if needed.

3. Describe other water uses, which do not generate wastewater (i.e. water sold as product, indirect cooling water, etc.). Include volumes used per day and any seasonal variation.

4. List all raw materials used in the manufacturing process.

5. Do any of this company's operating locations discharge materials to the city's sanitary sewer which are known to, suspected to, or might cause clogging, blockage, deposits, build-ups or other interference with flow in and operation of the city's sewer or treatment plant?

   Yes No

   If yes, please describe, including the frequency of such discharge.

   _____

6. Do any of this company's operating locations now (or in the past) have any difficulties or problems with the city's sanitary sewer, such as overflows, blockage, etc?

   Yes No

   If yes, please describe the situation and give your ideas as to why the problems occur.

   _____

XI. SPILL PREVENTION

1. Do you have chemical storage containers, bins, or ponds at your facility?

   Yes No

   If yes, please give a description of their location, contents, size, type, and frequency and method of cleaning. Also indicate in a diagram or comment on the proximity of these containers to a sewer or storm drain. Indicate if buried metal containers have cathodic protection.

   _____

2. Do you have floor drains in your manufacturing or chemical storage area(s)?

   Yes No

If yes, where do they discharge to?
____

3. If you have chemical storage containers, bins or ponds in manufacturing area, could an accidental spill lead to a discharge to: (Check all that apply).

[ ] an onsite disposal system
[ ] public sanitary sewer system (e.g. through a floor drain)
[ ] storm drain
[ ] to ground
[ ] other, specify:_____
[ ] not applicable, no possible discharge to any of the above routes

4. Do you have an accidental spill prevention plan (ASPP) to prevent spills of chemicals or slug discharges from entering the Control Authority's collection system?

[ ] Yes- please enclose a copy with the application
[ ] No
[ ] N/A – not applicable since there are no floor drains and/or the facility discharge(s) only domestic waste

5. Please describe below any previous spill events and remedial measures taken to prevent their reoccurrence.
____

XII. LIQUID WASTE CHARACTERISTICS

Please provide as complete as possible, the following information. We are not asking at this time that flow measurement or sampling be done to provide this information, although this may be needed later on in some cases. If, in your judgment, flow measurement or sampling can be done quickly and will provide better data, then feel free to do so, if this will not cause you to miss the deadline for returning this questionnaire. To complete this section, use existing information and supplement this with estimates. When only incomplete data is available, give what is known and indicate unknown or uncertain parameters.

Water Source (average, past 12 months)

City / Municipal Water Supply	_____ gal/day
Wells	_____ gal/day
Other Sources (describe) _____	_____ gal/day
Total	_____ gal/day

Water Consumption

Type	Average Water Usage (GPD)	Indicate Estimated (E) or Measured (M)
a. Contact cooling water	_____	_____
b. Non-contact cooling water	_____	_____
c. Boiler feed	_____	_____
d. Process	_____	_____
e. Sanitary	_____	_____
f. Air pollution control	_____	_____
g. Contained in product	_____	_____
h. Plant and equipment washdown	_____	_____
i. Irrigation	_____	_____
j. Other	_____	_____
k. TOTAL OF a – j	_____	_____

XIII. WASTEWATER PARAMETERS

List all known or anticipated pollutants (such as BOD, Suspended Solids, Metals, etc.) found in the wastewater being discharged to the city sewer system and their average concentrations.

Parameter		Average Concentration (mg/l)
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
Temperature	avg.	_____
	max.	_____
pH	avg.	_____
	max.	_____
	min	_____
Color (NTU)		_____

XIV. LIQUID WASTE VOLUMES AND DISPOSAL METHODS

1. To city sanitary sewer

   Flow Rate: average day _____ gal./day
   peak day _____ gal./day
   minimum day _____ gal./day
   30-minute peak _____ gal./day
   Time of peak flow _____
   Duration of discharge _____ hrs./day
   Source of this waste _____

   Seasonal variations _____

2. To storm sewer

   Flow Rate: average day _____ gal./day
   Source of this waste: _____

3. To surface water

   Flow Rate: average day _____ gal./day
   Source of this waste _____

4. To land application

   Flow Rate: average day _____ gal./day
   Source of this waste _____

5. To Waste Hauler (give information for all liquid wastes going to haulers)

   Flow Rate: average day _____ gal./day

6. Other (describe) _____

XV. NON-DISCHARGED WASTES

1. Are any waste liquids or sludges generated and not disposed of in the sanitary sewer system?

   [ ] Yes, please describe below

   [ ] No, skip to XVII

Waste Generated	Quantity (per year)	Disposal Method

2. Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. _____

3. If any of your wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility. _____

4. If an outside firm removes any of the above checked wastes, state the name(s) and Address(es) of all waste haulers.

   a. _____

   _____

   _____

   _____

   b. _____

   _____

   _____

   _____

Permit No.
(if applicable) _____

Permit No.
(if applicable) _____

5. Have you been issued any Federal, State, or local environmental permits?

Yes [ ] No [ ]

If Yes, please list the permit(s): _____

XVI. FOR CATEGORICAL USERS SUBJECT TO TOTAL ORGANIC (TTO) REQUIREMENTS

1. Provide the following (TTO) information.

   a. Does (or will) this facility use any of the toxic organics that are listed under the TTO standard of the applicable categorical pretreatment standards published by EPA?

      Yes [ ] No [ ]

   b. Has a baseline monitoring report (BMR) been submitted which contains TTO information?

      Yes [ ] No [ ]

   c. Has a toxic organics management plan (TOMP) been developed?

      Yes [ ] No [ ]

2. Do you have, or plan to have, automatic sampling equipment or continuous wastewater Flow metering equipment at this facility?

Current:	Flow Metering	Yes [ ]	No [ ]	N/A [ ]
	Sampling Equipment	Yes [ ]	No [ ]	N/A [ ]

Planned: Flow Metering Yes [ ] No [ ] N/A [ ]
Sampling Equipment Yes [ ] No [ ] N/A [ ]

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment. _____

3. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Consider production processes as well as air or water pollution treatment processes that may affect discharge.

Yes [ ] No [ ]

Briefly describe these changes and their effects on the wastewater volume and characteristics (Attach additional sheets if needed). _____

XVII. AUTHORIZED SIGNAGURES

Compliance certification:

1. Are all applicable Federal, State or local pretreatment standards and requirements being met on a consistent basis?

Yes [ ] No [ ] Not yet discharging [ ]

2. If No:
   a. What additional operational and maintenance procedures are being considered to bring the facility into compliance? Also, list additional treatment technology or practice being considered in order to bring the facility into compliance.

   b. Provide a schedule for bringing the facility into compliance. Specify major events planned along with reasonable completion dates. Note that if the

Control Authority issues a permit to the applicant, it may establish a schedule for compliance different from the one submitted by the facility.

Milestone Activity	Completion Date

Note to Signing Official: In accordance with Title 40 of the Code of Federal Regulations Part 403 Section 403.14, information and data provided in this questionnaire which identifies the nature and frequency of discharge shall be available to public without restriction. Requests for confidential treatment of other information shall be governed by procedures specified in 40 CFR Part 2. Should a discharge permit be required for your facility, the information in this questionnaire will be used to issue the permit.

Authorized Representative Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who mange the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name(s)	Title	
Signature	Date	Phone

TABLE 1

LIST OF SUBSTANCES

acenephthene
acrolein
acrylonitrile
benzene
benzidine
carbon tetrachloride
chlorinated benzenes (other than dichlorobenzes
chlorobenzene
1,2,4-trichlorobenzene
Hexachlorobenzene
Chlorinated ethanes (including 12,-dichloroethane,
    1,1,1-trichloroethane and hexachloroethane
1,2-dichloroethane
1,1,1-trichloroethane
hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
chloroethane
    chloroalkyl ethers (chloromethyl,
    chloroethyl and mixed ethers)
bis (chloromethyl) ether
bis (2 chloroethyl) ether
2-chloroethyl vinyl ether (mixed)
Chlorinated naphthalene
2-chloronaphthalene
Chlorinated phenols (other than those listed
    elsewhere; includes trichlorophenols and
    chlorinated cresols)
2,4,6-trichlorophenol
parachlorometa cresol
chloroform (trichloromethane)
2-chlorophenol
dichlorobenzenes
1,2-dichlorobennzene
1,3-dichlorobenzene
1,4-dichlorobenzene
dichlorobenzidine
3,3-dichlorobenzidine
dichloroethylenes (1,1-dichloroethylene and
    1,2-dichloroethylene)
1,1-dichloroethylene
1,2-trans-dichloroethylene
2,4-dichlorophenol
dichloropropane and dichloropropene
1,2-dichloropropane
1,2-dichloropropylene (1,3-dichloropropylene)
2,4-dimethylphenol
dinitrotoluene
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenyihydrazine
ethylbenzene
fluoranthene
haloethers (other than those listed elsewhere)
4-chlorophenyl phenyl ester
4-bromophenyl phenyl ester
bis (2 shloroisopropyl) ester
bis (2 chloroethoxy)methane
halomethanes (other than those listed elsewhere)
methylene chloride (dichloromethane)
methyl chloride (chloromethane)
methel bromide (bromomethane)
bromoform (tribromomethane)
dichlorobromomethane
trichlorofluoromethane
dichlorodifluoromethane
chlorodibromomethane
hexachlorobutadiene
hexachlorocyclopentadiene
isophorone
naphthalene
nitrobenzene
nitrophenols (including 2,4 dinitrop and
    dinitrocresol)
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-o-cresol
nitrosamines
N-nitrosodimethylamine
N-nirtosodiphenylamine
N-nitrosodi-n-propylamine
pentachlorophenol
phenol
Phthalate esters
bis (2 ethylhexyl) phthalate
butyl benzyl phthalate
di-n-butyl phthalate
di-n-octyl phthalate

TABLE 1
LIST OF SUBSTANCES (CONTINUED)

diethyl phthalate
dimethyl phthalate
polynuclear-aromatic hydrocarbons
benzo (a) anthracene (T,2-benzanthracene)
benzo (a) pyrene (3,4-benzopyrene)
3,4 benzofluoranthane
benzo (k) fluoroanthane (11,12-benzofluorathene)
chrysene
acenaphthylene
anthracene
benzo (ghi) perylene (1,12-benzoperylene)
florene
phenanthrene
dibenzo (a,h) anthracene (1,2,5,6-dibenzanthracene)
indeno (1,2,3-dc) pyrene (2,3-o-phenylenepyrene)
Pyreno
tetrachloroethylene
toluene
trichloroethylene
vinyl chloride (chloroethylene)
pesticides and metabolites
aldrin
dieldrin
chlordane (technical mixture and metabolites)
DDT and metabolites
4,4-DDT
4,4-DDE (p,p-DDX)
4,4-DDD (p,p-TDE)
Endosulfan and metabolites
a-endosulfan-Alpha
b-endosulfan-Beta
endosulfan sulfate
endrin and metabolites
endrin
endrin aldehyde
heptrachlor and metabolites
PCB-1242 (Arochlor 1242)
PCB-1221 (Arochlor 1221)
PCB-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)
PCB-1016 (Arochlor 1016)
toxaphene
antimony (total)
arsenic (total)
asbestos (fibrous)
beryllium (total)
cadmium (total)
chromium (total)
copper (total)
cyanide (total)
lead (total)
mercury (total)
nickel (total)
selenium (total)
silver (total)
thallium (total)
zinc (total)
2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)
ammonia nitrogen

heptrachlor
hetrachlor epoxide
hexachlorocyclohexane (all isomers)
a-BHC-Alpha
b-BHC-Beta
r-BHC (lindane) Gamma
g-BHC-Delta
polychlorinated biphenols (PCB's)

TABLE 2
LIST OF WASTES

The spent halogenated solvents used in degreasing, tetrachloroethylene, methyl chloride, 1,1,1-trichloroethyane, carbon tetrachloride, and the chlorinated fluorocarbons and sludges from the recovery of these solvents in degreasing operations.
The spent halogenated solvents, tetrachloroethylene, methyl chloride, trichloroethylene, 1,1,1-trichloroehtane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane and the still bottoms from the recovery of these solvents.
The spent non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone and the still bottoms from the recovery of these solvents.
The spent non-halogenated solvents, cresols and cresylic acid, nitrobenzene, and the still bottoms from the recovery of these solvents.
The spent non-halogenated solvents, methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, cardon disulfide, isobutanol, pyridine, and the still bottoms from the recovery of these solvents.
Wastewater treatment sludges from electroplating operations.
Spent plating bath solutions from electroplating operations.
Plating bath sludges from the bottom of plating baths from electroplating operations.
Spent stripping and cleaning bath solutions from electroplating operations.
Quenching bath sludge from oil baths from metal heat treating operations.
Spent solutions from salt bath pot cleaning from metal heat treating operations.
Quenching wastewater treatment sludges from metal heat treating operations.
Floating tailings fro selective flotation from mineral metals recovery operations.
Cyanidation wastewater treatment tailing pond sediment from mineral metals recovery operations.
Spent cyanide bath solutions from mineral metals recovery operations.
Dewatered air pollution control scrubber sludges from coke ovens and blast furnaces.
Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.

Wastewater treatment sludge from the production of chrome yellow and orange pigments.
Wastewater treatment sludge from the production of molybdate orange pigments.
Wastewater treatment sludge from the production of zinc pigments.
Wastewater treatment sludge from the production of chrome green pigments.
Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
Wastewater treatment sludge from the production of iron blue pigments.
Oven residue from the production of chrome oxide green pigments.

Distillation bottoms from the production of acetaldehyde from ethylene.
Distillation side cuts from the production of acetaldehyde from ethylene.
Bottom stream from the wastewater stripper in the production of acrylonitrile.
Still bottoms from the final purifiction of acrylonitrile in the production of acrylonitrile.
Bottom stream from the acetonitrile column in the production of acrylonitrile.
Bottoms from the acetronitrile purification column in the production of acrylonitrile.
Still bottoms from the distillation of benzyl chloride.
Heavy ends or distillation residues from the production of carbon tetrachloride.
Heavy neds (still bottoms) from the purification column in the production of epichlorohydrin.
Heavy ends from the fractionation in ethyl chloride production.
Heavy ends from the distillation of ethyl dichloride in ethylene dichloride production.
Heavy ends from the distillation of vinyl chloride monomer production.

Aqueous spent antimony catalyst from fluoromethanes production.
Distillation bottom tars from the production of phenol/acetone from cumene.
Distillation light ends from the production of phthalic anhydride from naphthalene.
Distillation bottoms from the production of phthalic anhydride from naphthalene.
Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
Stripping still tails from the production of methyl ethyl pyridines.
Centrifuge residue from the toluene diisocyanate production.
Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.
Waste from the product stream stripper in the production of 1,1,1-trichloroethane.
Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.

By-product salts generated in the production of MSMA and cacodylic acid.
Wastewater treatment sludge from the production of chlordane.
Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
Wastewater treatment sludges generated in the production of creosote.
Still bottoms from toluene reclamation distillation in the production of disulfoton.
Wastewater from the washing and stripping of phorate production.
Filter cake from the filtration of diethylphosphorodithoric acid in the production of phorate.
Wastewater treatment sludge from the production of phorate.
Wastewater treatment sludge from the production of toxaphene.
Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.
2,6-Dichlorophenol waste from the production of 2,4D.

TABLE 2
LIST OF WASTES (CONTINUED)

Wastewater treatment sludges from the manufacturing and processing of explosives.
Spent carbon from the treatment of wastewater containing explosives.
Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.
Pink/red water from TNT operations.

Dissolved air flotation (DAF) float from the petroleum refining industry.
Slop oil emulsion solids from the petroleum refining industry.
Heat exchanger bundle cleaning sludge from the petroleum refining industry.
API separator sludge from the petroleum refining industry.
Tank bottoms (leaded) from the petroleum refining industry.

Chrome (blue) trimmings generated by the following subcategories of the leather tanning industry; hair pulp/retan/wet finish, hair save/ chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling.
Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling.
Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/retan/wet finish, hair save/ chrome tan/retan/wet finish, retan/wet finish, no beamhouse, and through-the-blue.
Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/retan/wet finish, hair save/ chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling.
Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/ wet finish, no beamhouse, through-the-blue, and shearling.
Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, and through-the-blue.
Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair save/non-chrome tan/retan/wet finish.

Ammonia still lime sludge from coking operations.
Emission control dust/sludge from the electric furnace production of steel.
Spent pickle liquor from steel finishing operations.
Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.
Surface impoundment solids contained in and dredged from the surface impoundments at primary lead smelting facilities.

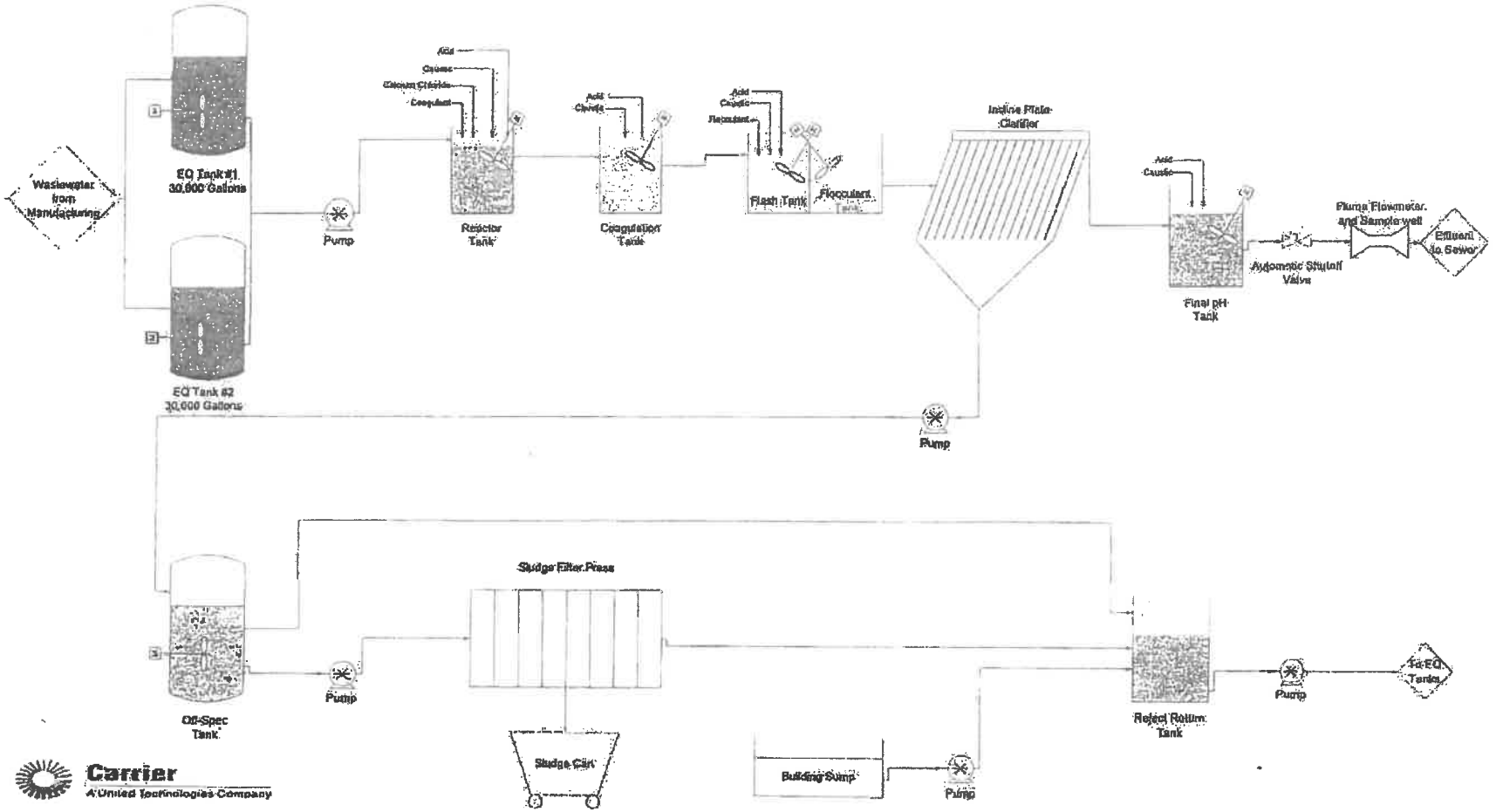
Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.
Electrolytic anode slimes/sludges from primary zinc production.
Cadmium plant leach residue (iron oxide) from primary zinc production.

Emission control dust/sludge from secondary lead smelting.

Paint residues or sludges from industrial painting in the mechanical and electrical products industry.
Wastewater treatment sludge from the industrial painting in the mechanical and electrical products industry.
Brine purification muds from the mercury cell process in chloride production, where separately prepurified brine is not used.
Chlorinated hydrocarbon waste from the purification step of diaphragm cell process using graphite anodes in chlorine production.
Wastewater treatment sludges from the production of TiO_2 pigment using chromium bearing ores by the chloride process.
Solvent cleaning wastes from the equipment and tank cleaning from paint manufacturing.
Water or caustic cleaning wastes from equipment and tank cleaning from paint manufacturing.
Wastewater treatment sludges from the paint manufacturing.
Emission control dust or sludge from paint manufacturing.
Distillation bottoms from aniline production.
Distillation or fractionating column bottoms from the production of chlorobenzenes.
Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.
Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
Decanter tank tar sludge from coking operations.
Spent potliners from primary aluminum reduction.
Emission control dust or sludge from ferrochromium-silicon production.
Emission control dust or sludge from ferrochromium production.
Emission control dust or sludge from ferromanganese production.

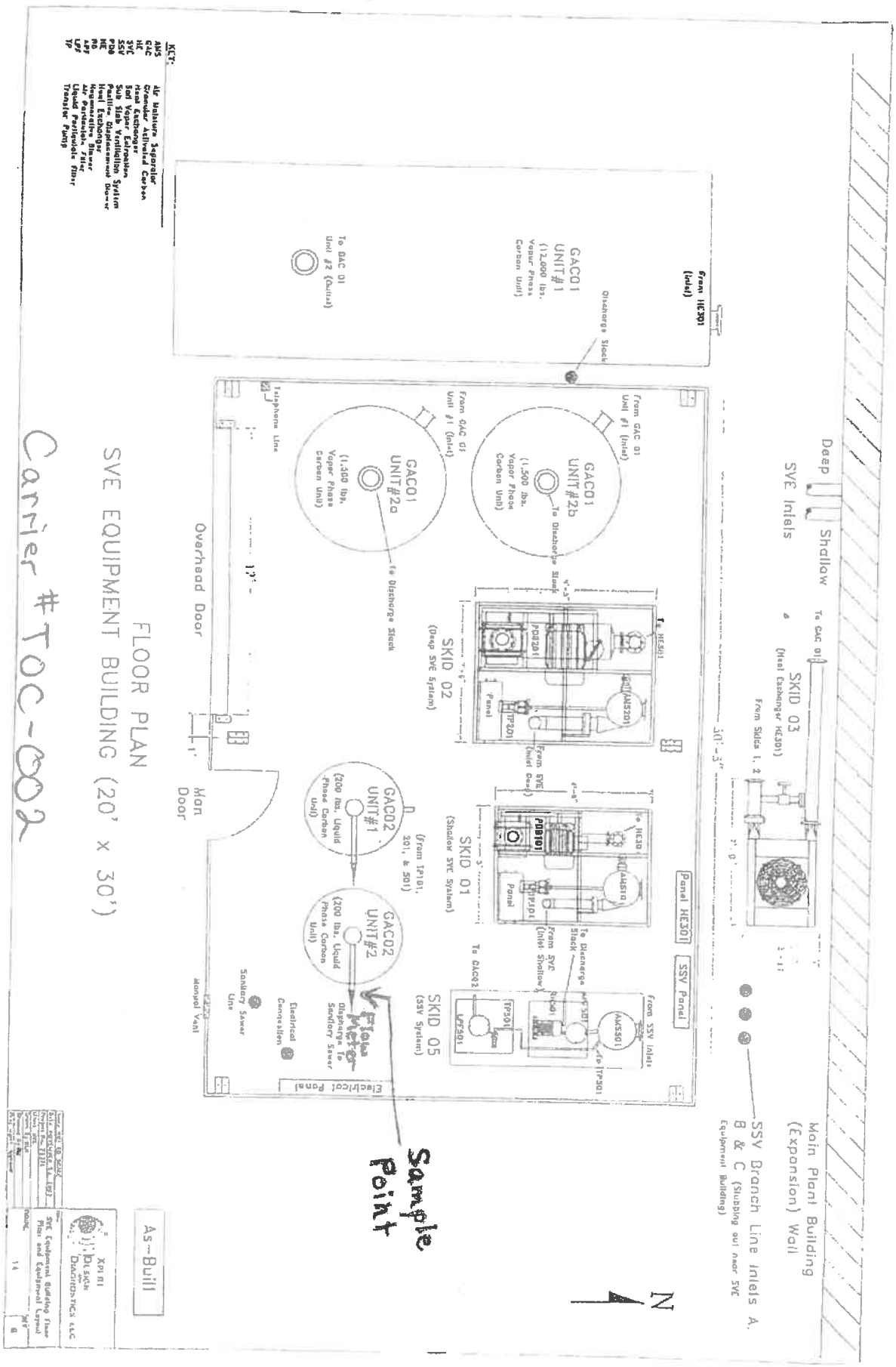
#TOC-001

Carrier Corporation
Collierville, TN
Waste Water Treatment Plant
Process Flow Diagram

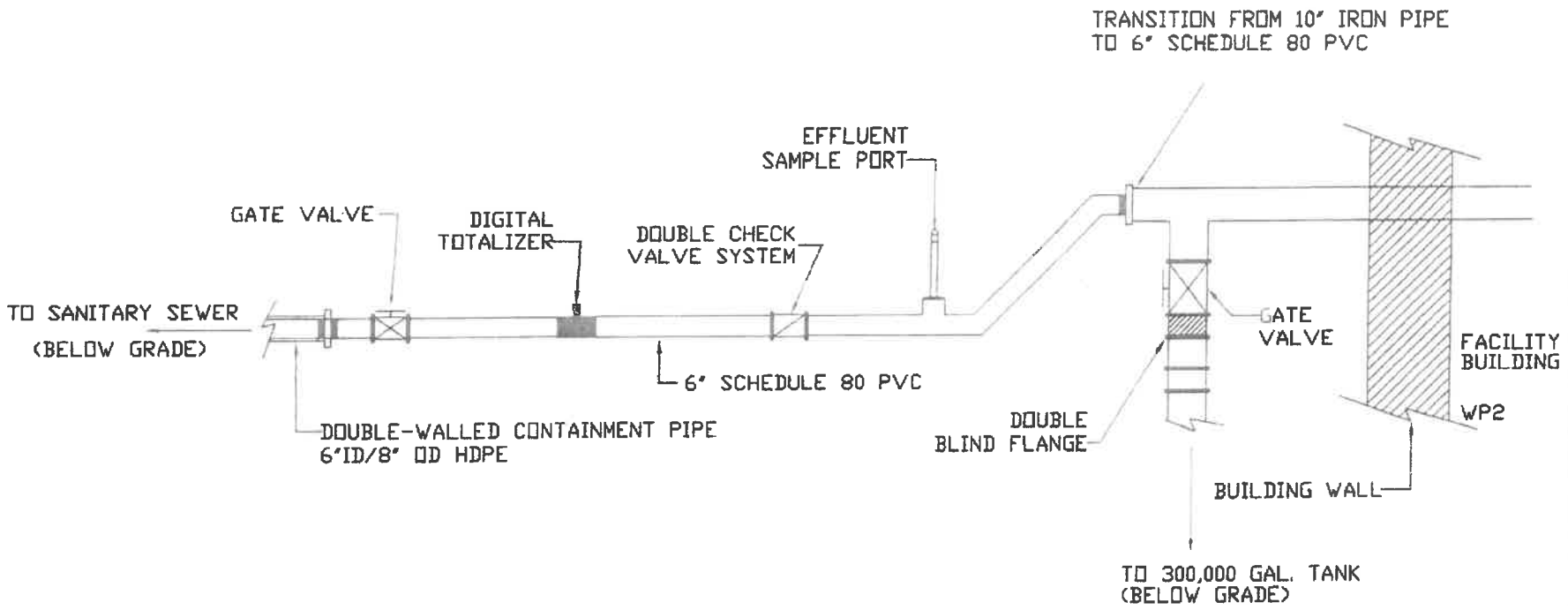


Attachment A

ATTACHMENT A



ATTACHMENT A



Carrier #TOC-005

SAS
ENVIRONMENTAL, INC.

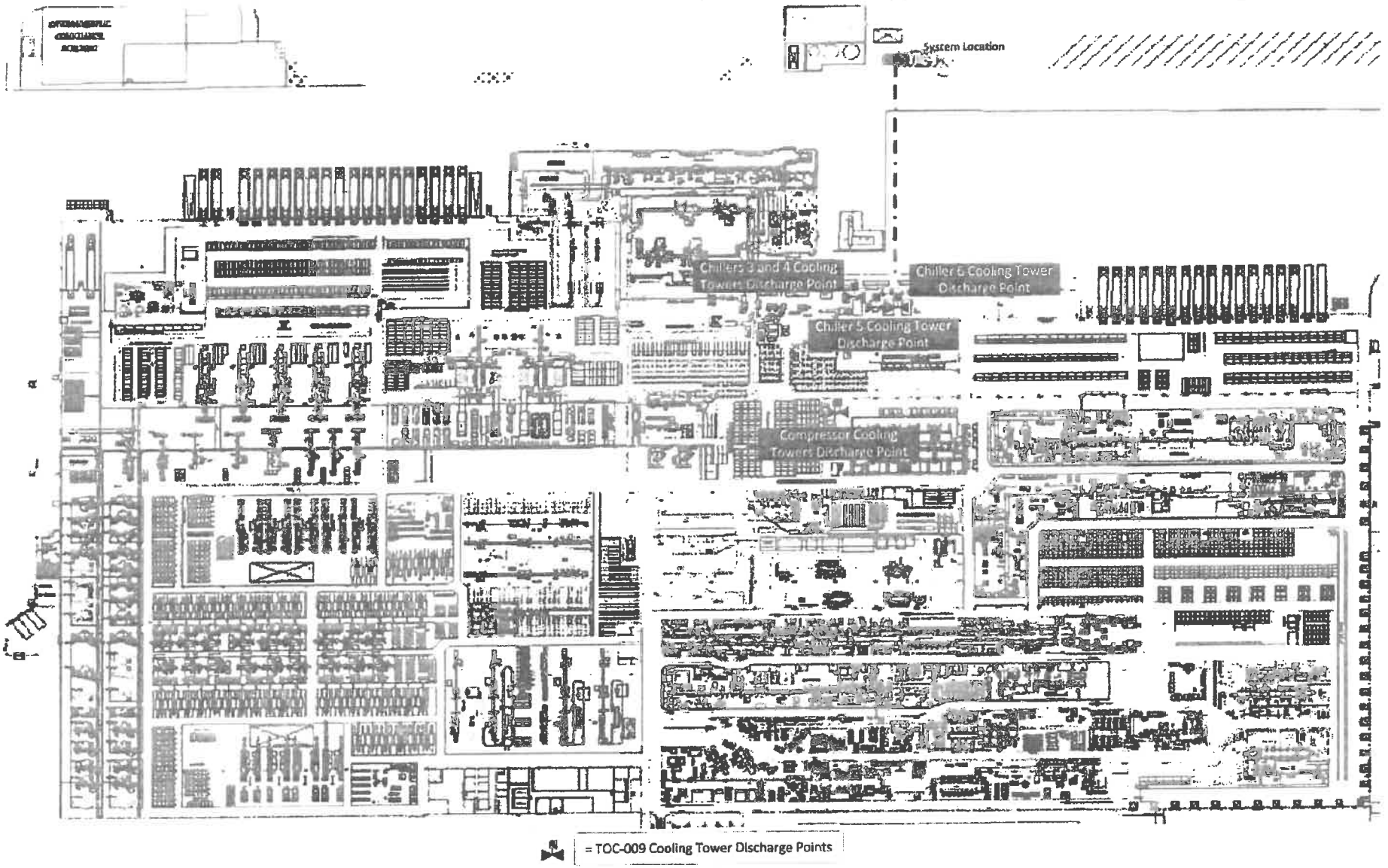
WP2 FLEXS PIPE CONNECTION SCHEMATIC

UTC COLLIERVILLE

97 SOUTH BYHALIA RAOD
COLLIERVILLE, TN

PREPARED BY: JLK	DATE: 01/14/15	PR	#031091

Facilities – Waste Water Capital Project – Plant Layout



Carrier #TOC-009

ATTACHMENT A

ATTACHMENT A