



City of Houston Wastewater Operations Pretreatment Program

Welcome to the City of Houston's **Pretreatment Program**. If you are seeking information pertaining to Industrial Waste Permits for a new or existing industry in the Houston area, you will find all the necessary information here. Our phone number is (281) 575-2824. You can contact us by email at pretreatment@cityofhouston.net For quick links to information select one of the following:

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For more than three decades, the **Industrial Wastewater Service** of the **City of Houston's Department of Public Works and Engineering** has worked to protect the City's wastewater treatment plants (and thus the state waters) by regulating industrial wastes that are discharged to the City's sanitary sewer system.

The City's Industrial Wastewater Service manages one of the largest pretreatment programs in the nation - more than 300 permits are maintained (116 of which are categorical) and approximately 3,500 samples per year are collected. It administers and enforces federal EPA regulations, as well as City of Houston Ordinance, Chapter 47, Article V., (Disposal of Industrial Wastes Through City Sewer System).

Our Objectives

Our success in permit compliance can be measured by our EPA NPDES compliance of 99% and the number of national awards bestowed by the Association of Metropolitan Sewerage Agencies (AMSA). We are proud of our commitment and believe strongly in our objectives. They are:

- To protect Houston's publicly owned treatment works (POTW) from pollutants which may cause interference with sewage treatment plant operations;
- Prevent introducing pollutants into a POTW that could cause pass through of untreated pollutants to receiving waters;
- Manage pollutant discharges into a POTW to improve opportunities for reuse of POTW wastewater and residuals (sewage sludge); and,
- Prevent introducing pollutants into a POTW that could cause worker health or safety concerns, or pose a potential endangerment to the public or the environment.

Do You Need A Permit?

Industrial facilities and certain commercial facilities which plan to discharge industrial waste to the City's sanitary sewer system may be required to obtain an Industrial Waste Permit. For our purposes, **industrial waste is defined as:**

"Any waterborne solid, liquid or gaseous waste, resulting from any production, industrial, manufacturing or food processing operation or from the development, recovery or processing of any natural resource, including waste that is required to be pretreated by Chapter 47, Article V or the City's Plumbing Code."

You **do not need** an Industrial Waste Permit if:

- Your business is a self-service or commercial (not industrial) laundry.
- Your business is a restaurant.
- Your business is a car or truck wash where exteriors are being washed.

Additionally, the City of Houston is not currently requiring an Industrial Waste Permit for the following operations: Hospitals, analytical and research laboratories, small photographic developing operations, printers, and industries with wash racks that are used for routine equipment cleaning.

However, any facility discharging industrial waste to the sanitary sewer system may be required to obtain an Industrial Waste Permit if the Industrial Wastewater Service makes that determination.

Steps To Obtaining A Permit

- 1) The first step in obtaining an Industrial Waste Permit is to contact the Industrial Wastewater Service at (281) 575-2800 to discuss your firm's operations and request an inspection of your facility.
- 2) Once the City performs an inspection, and it has been determined your firm will require an Industrial Waste Permit, the City will send written notification that will include a permit application.
- 3) After submitting your permit application to the City the Industrial Wastewater Service will review it and, if the application is acceptable, an Industrial Waste Permit will be issued. All facilities required to obtain an Industrial Waste Permit must pay a permit/application fee of \$75.00. The Industrial Waste Permit is issued for two (2) years and permits are renewable (after that period of time) for \$75.00.

Significant Industrial Users

The term Significant Industrial User (SIU) applies to an industry that discharges to the sanitary sewer if that industry meets the following criteria:

- The industry is subject to federal regulations.
- Any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, non-contact cooling and boiler blow down wastewater); contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the control authority as defined in 40 CFR 403.12 (a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

SIU's are further classified as Categorical Industrial Users (CIU) if they are subject to federal discharge limitations developed by the EPA. CIU's are also subject to the City's local limits. All other SIU's are classified as Non-Categorical SIU's and are subject only to the City's local sanitary sewer discharge limits. SIU's are subject to more stringent rules than other types of businesses.

Federally Regulated Industrial Categories

The following is a list of the federal categorical regulations that establish effluent limits for industries that discharge industrial waste to the sanitary sewer. If an industry performs a specific operation that is listed in one of the following categorical regulations, that industry is identified as a categorical industry. New categorical regulations are currently being developed by the EPA and this list should not be used to determine if these are the only categorical regulations that have been promulgated:

- Aluminum Forming (40 CFR 467)
- Asbestos Manufacturing (40 CFR 427)
- Battery Manufacturing (40 CFR 461)
- Coil Coating, Phase I (40 CFR 465)
- Coil Coating, Phase II - Can Making Subcategory (40 CFR 465)
- Copper Forming (40 CFR 468)
- Electrical and Electronic Components, Phase I and Phase II (40 CFR 469)
- Electroplating (40 CFR 413)
- Fertilizer Manufacturing (40 CFR 418)
- Glass Manufacturing (40 CFR 426)
- Ink Formulating (40 CFR 447)
- Iron and Steel (40 CFR 420)

- Leather Tanning and Finishing (40 CFR 425)
- Metal Finishing (40 CFR 433)
- Metal Molding and Casting (40 CFR 464)
- Nonferrous Metals Forming and Metal Powders (40 CFR 471)
- Nonferrous Metals Manufacturing, Phase I and II (40 CFR 421)
- Organic Chemicals, Plastics, and Synthetic Fibers (40 CFR 414)
- Paint Formulating (40 CFR 446)
- Pesticide Chemical Manufacturing (40 CFR 455)
- Petroleum Refining (40 CFR 419)
- Pharmaceutical Manufacturing (40 CFR 439)
- Porcelain Enameling (40 CFR 466)
- Pulp, Paper, and Paperboard and the Builder's Paper and Board Mills (40 CFR 430 and 431)
- Rubber Manufacturing (40 CFR 428)
- Soap and Detergent Manufacturing (40 CFR 417)
- Steam Electric Power Generation (40 CFR 423)
- Textile Mills (40 CFR 410)
- Timber Products (40 CFR 429)
- Transportation and Equipment Cleaning (40 CFR 442)

Inspection and Sampling

Houston's monitoring program is conducted to control discharges to the City's wastewater treatment plants. Routine facility inspections and sampling are conducted by inspectors to ensure compliance with the City's Ordinance, as well as each industrial user's individual permit requirements. Inspectors also conduct surveillance monitoring at sewer maintenance manholes, inspect targeted areas in the City to inventory industrial users that require permits, and respond to treatment plant upsets or interference which may require investigations of industrial users upstream from treatment plants.

Local Limits

Houston enforces local limits, as mandated by the EPA and the Clean Water Act. It also enforces guidelines set forth in City of Houston Ordinance Article V., City Code Sections 47-186 through 47-208-which gave the City enforcement authority over permit violations. Section 47-194 (Standard of Quality) establishes the discharge limits as set out below.

Pollutant	Grab Limit (mg/L)	Composite Limit (mg/L)
Arsenic	3.0	2.0
Cadmium	0.4	0.2
Chromium	3.0	1.0
Copper	3.0	2.0
Lead	1.5	1.0
Mercury	0.02	0.01
Nickel	3.0	2.0
Selenium	5.0	3.0
Silver	2.0	1.0
Zinc	6.0	3.0
Cyanide (Amenable)	2.0	
Oil and Grease	400.0	

Other Prohibited Discharges

- Acids with a pH value lower than 5 or alkalis with a pH higher than 11.
- Sulfides in concentrations greater than five (5) milligrams per liter.
- Any liquid or vapor with a temperature exceeding 45 degrees Celsius (113 degrees Fahrenheit).

- Waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius.
- Any flammable or explosive liquid, solid, or gas.
- Any discharge that forms a discernable floating layer of oil and grease on the surface of the discharged water.
- Solid or viscous substances capable of obstructing flow in sewers.
- Any noxious substance that can form an objectionable or hazardous gas.
- Petroleum oil, non-biodegradable cutting oil, or products of mineral origin in amounts that cause interference with or passes through the sanitary sewer system.
- Pollutants resulting in toxic vapors, gases, or fumes that may cause acute utility worker health and safety problems.
- Any trucked or hauled waste except where the utility official has permitted a designated discharge point.
- Unusual concentrations of BOD, suspended solids or total dissolved solids such as sodium chloride or sodium sulfate.
- Subsurface drainage, storm or ground water, downspout of roof runoff, yard sprinklers, drains, fountains or ponds.

Sanitary Sewer Surcharge

A sanitary sewer surcharge is imposed on an industrial user for discharges containing concentrations of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) exceeding acceptable values. If an industry's average BOD concentration exceeds 350 milligrams per liter, or if the average TSS concentration exceeds 375 milligrams per liter, the City will use a predetermined formula to calculate a sanitary sewer surcharge for wastewater billing. The Industrial Wastewater Service will perform an annual evaluation to determine what each permitted industry's sanitary sewer billing rate should be. The average concentrations for BOD and TSS from both City and industry self-monitoring are used to arrive at a sewer-billing rate. The surcharge fee pays for the cost of the additional treatment at the City's wastewater treatment plant. Treatment and removal of "high-strength" waste requires extra operating expenses such as the cost of additional chemicals, power, solids storage capacity, and final disposal.

Enforcement of Pretreatment Guidelines

Industrial facilities which do not comply with permit requirements are subject to enforcement action. Houston utilizes a progressive enforcement response plan with actions ranging from issuance of Notices of Violation (NOV's) and Administrative Orders to sewer or water service termination and administrative fines. The key to responding to a violation notice is communication with the Industrial Wastewater Service.

Prohibited Wastes

There are certain prohibited wastes in general that should not be discharged under any circumstances, regardless of your pretreatment classification. They are:

- Flammable, reactive, explosive, corrosive, or radioactive substances
- Noxious or malodorous materials
- Medical or infectious wastes
- Solid or viscous materials which could cause obstruction to the flow or operation of the treatment plants
- Toxic substances
- Non-biodegradable oils
- Pollutants which result in the emission of hazardous gases