

WASTE WATER PROCEDURE

- A. **Purpose:** The McLennan Community College waste water procedure outlines requirements to protect the environment, promote safety, and meet local Publicly Owned Treatment Works (POTW) limits. It is important to note that discharges to the POTW (e.g., via sink drains, floor drains, toilets), storm drains (e.g., curb openings in the street), and surface water and the ground are subject to stringent federal, state and local requirements and prohibitions. This procedure particularly identifies what chemicals and other substances can be discharged to the POTW and/or testing to be completed on the discharge to ensure it meets the local sewer and storm water ordinances. This procedure also provides for a waste stream determination on some discharges in order for the POTW to make an interpretation of whether or not the chemicals can be disposed via the sink drains.
- B. **Scope:** This procedure applies to all individuals involved with discharge of any material, including discharges down McLennan sewerage and storm drains, such as faculty, staff, students, and contract employees.
- C. **Responsibility:**
1. The Physical Plant Director assists in determining appropriateness of discharging various substances down the drains that enter the POTW sewerage and discharges to storm systems.
 2. Persons involved in actual discharges are responsible for all discharge related activities and must adhere to the requirements of this procedure.
- D. **No Discharge to Storm Drains, Ground, or Water:** No discharging or dumping of any kind is allowed in storm drains, on the ground or in water ways and other surface water. This includes, but is not limited to, such activities as car washes, mop water dumping, swimming pool system backwash, kitchen refuse and outdoor rinsing of any kind.
1. Contact the Physical Plant Director for any exceptions to be considered.
 2. Exceptions will require prior written approval after consultation with the POTW and/or Texas Commission on Environmental Quality (TCEQ).
 3. Maintain documentation of exceptions. Approved exceptions must be kept on file by the department making the discharge.
- E. **Limited Discharge to POTW Sewerage:** Discharge to the POTW sewerage may be allowed if a waste stream determination is made that allows such discharge. The waste stream determination must be documented and filed in each area that allows discharge, with all the following considerations being made.

NOTE: If the waste stream determination does not allow discharge to the POTW sewerage, then the material must be collected for hazardous waste pickup. Physical Plant will coordinate the pickup.

1. Waste material may not be discharged to the POTW sewerage if it is either a characteristically hazardous waste or an EPA Listed hazardous waste.
 - A. The Code of Federal Regulation defines characteristically hazardous waste in 40 CFR 261.20 – 261.24 (<http://www.gpoaccess.gov/cfr/index.html>) by:
 - i. Ignitability – A solid waste exhibits the characteristics of ignitability if a representative sample of the waste has any of the following properties:
 - Liquids that have a flash point less than 60°C (140°F).
 - Materials other than liquids that are capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burn so vigorously and persistently that they create a hazard.
 - It is an ignitable compressed gas.
 - It is an oxidizer that yields oxygen readily to stimulate combustion of organic matter.
 - ii. Corrosivity – A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
 - Aqueous solutions with pH of less than or equal to 2 or greater than or equal to 12.5.
 - Liquid substances which corrode steel at a rate greater than 6.35 millimeters (0.250 inches) per year at a test temperature of 55°C (130°F).
 - iii. Reactivity – A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:
 - It is normally unstable and readily undergoes violent change without detonation.
 - It reacts violently with water.
 - It forms potentially explosive mixtures with water.
 - When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.
 - It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or

fumes in a quantity sufficient to present a danger to human health or the environment.

- It is capable of detonation or explosive reaction when subjected to a strong initiating source or if heated in confinement.
- It is readily capable of detonation or explosive decomposition at standard temperature and pressure.
- It is a forbidden explosive as defined in 49 CFR 173.53-173.56.

iv. **Toxicity** – A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure (TCLP), the extract from a representative sample of the waste contains any of the contaminants exceeding the concentrations listed below, including the listed metals in any compounds:

EPA HW No.	Contaminants	CAS No.	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0
D024	m-Cresol	108-39-4	200.0
D025	p-Cresol	106-44-5	200.0
D026	Cresol	-----	200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichlorobenzene	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4_Dinitrotoluene	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7

D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-5	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

- B. The Code of Federal Regulation defines listed hazardous waste from specific and non-specific sources. For a detailed schedule of Listed EPA codes and corresponding hazardous material, refer to 40 CFR 261.31 – 261.33 (<http://www.gpoaccess.gov/cfr/index.html>):
- i. F-Listed: Material that is spent from non-specific sources. Common F-Listed material includes items such as methylene chloride, trichloroethylene, and acetone, xylene, methanol, pyridine, and methyl ethyl ketone. Halogenated and non-halogenated solvents are listed in F001-F005 and must be collected for disposal if, before use, one or more of the materials listed totals 10% or more by volume.
 - ii. K-Listed: Material that is spent from specific sources. This material is most often found as a byproduct of industrial applications and may not apply to normal laboratory processes.
 - iii. U-Listed: Material that is a virgin (unused) product.
 - iv. P-Listed: Material that is a virgin (unused) acutely toxic product, or unrinsed, empty containers that were previously used to hold P-Listed material.
2. Wastewater discharged to the POTW sewerage must have a pH value between 5.5 and 10.5.
 3. No oils or greases of any kind are allowed to be discharged to the POTW sewerage.
 4. The user must be certain how the material meets requirements prior to discharge to the POTW sewerage.
 5. Users may choose to defer waste stream determinations and waste related issues to the Physical Plant for review.
 - A. Complete a POTW Discharge Approval Form.
 - B. Applicable Material Safety Data Sheets (MSDS) should be submitted with the POTW Discharge Approval Form.

C. Physical Plant will complete a waste stream determination for potential discharge approval.

F. **Periodic Sampling:** The McLennan Physical Plant department will take periodic samples of waste water being discharged to the POTW.

1. At least twice per year grab samples will be taken from select end point discharges.
2. Samples will be analyzed to determine if any POTW parameters are being exceeded or conditions are being violated.
3. If POTW parameters are being exceeded or conditions violated, or it is determined that exceeding or violating such may be imminent, then an investigation must be completed to determine the potential source.
 - A. The investigation should be conducted in collaboration with the potential person(s) that may be discharging inadmissible waste.
 - B. Any offender of this policy must cease operating outside the parameters.

G. **Failure to Comply:** Violation of this procedure may result in personal liability (as well as potential liability of McLennan) and suspension of operational status. In addition, the violator may be subject to college disciplinary procedures.

