

## Appendix B: Hazardous Waste Management Procedures

### B-1 Introduction & Responsibilities

Hazardous waste is generated at the University of South Florida (USF) from various activities including research, teaching, art, and facilities support. The Environmental Protection Agency (EPA) is the Federal agency charged with developing and ensuring compliance with hazardous waste regulations. In the State of Florida, the Florida Department of Environmental Protection (DEP) has been delegated the authority to develop additional hazardous waste regulations, providing they are at least as stringent as those promulgated by the EPA, and inspect facilities that generate, store, or dispose of hazardous waste. Therefore, USF is required to adhere to the regulations of both the EPA and DEP and may be subject to unannounced inspections by either agency.

EPA and DEP regulations allow for small quantities of hazardous waste to be accumulated under the control of the generator at or near the point of waste generation up to a maximum of 55 gallons, or one quart of EPA acutely hazardous waste. These accumulation points are called satellite accumulation areas (SAAs). The University may classify each laboratory, shop, studio, or other appropriate area as an SAA.

This document outlines the regulations governing the accumulation of hazardous waste in SAAs and describes the procedures for managing hazardous waste in SAAs at USF.

#### ENVIRONMENTAL HEALTH AND SAFETY

Environmental Health and Safety (EH&S) provides information to University personnel on proper storage and disposal methods for hazardous waste. EH&S ensures that the storage of chemicals at the University's central Hazardous Waste Accumulation Site and final shipment and disposal of waste are in compliance with applicable federal, state, and local regulations. In addition, EH&S completes and submits all applicable hazardous waste reports to the appropriate regulatory agencies.

#### FACULTY, STAFF AND STUDENTS

All faculty, staff, and students working with hazardous materials that result in the generation of hazardous waste must comply with hazardous waste regulations and this procedure.

- Each satellite accumulation area should appoint an individual responsible for ensuring that its respective area complies with the University's procedures including the procedures contained within this document. This individual may be a Principal Investigator, lab manager, graduate student, shop supervisor, or other designated staff member.
- The ultimate responsibility for hazardous waste satellite accumulation area compliance lies with the Principal Investigator or worksite supervisor. Any fines incurred for violations of the hazardous waste regulations during inspections by regulatory agencies will be the responsibility of the department.

### B- 2 Procedures

#### HAZARDOUS WASTE IDENTIFICATION

A *waste* is defined as a material that has no intended use or reuse and includes chemicals that are no longer needed,  
*USF Chemical Hygiene Plan – revised, 2018*

expired, or spilled.

There are two types of wastes that the Environmental Protection Agency (EPA) considers hazardous wastes:

*Listed wastes:*

- Waste chemicals specifically listed by the EPA in 40 CFR 261.31, 40 CFR 261.32, and 40 CFR 261.33. See [EPA Toxicity Characteristic and Listed Hazardous Wastes](#).

*Characteristic wastes are wastes that exhibit one or more of the following characteristics:*

- *Ignitability*- substances that create fires under certain conditions or spontaneously combust and have a flashpoint less than 60°C (140°F) **RCRA Code = D001**
- *Corrosivity*- acids with pH less than 2 or bases with pH greater than 12.5 **RCRA Code = D003**
- *Reactivity*- substances that are unstable under normal conditions and are capable of causing explosions or emitting toxic fumes, gases, or vapors when mixed with water or other materials **RCRA Code = D003**
- *Toxicity*- substances that are harmful or fatal when ingested or absorbed or are capable of polluting groundwater if disposed of on land **RCRA Code = D004 – D043**

Note: These characteristics are further defined in 40 CFR 261.21 - 261.24.

Not all chemical wastes are hazardous wastes as defined by the EPA. However, all chemical wastes should be stored in satellite accumulation areas and should be treated as hazardous wastes due to local disposal restrictions. Even chemical wastes that are not EPA hazardous wastes should be disposed of through EH&S unless specific authority has been granted through EH&S for alternative disposal methods. The EH&S staff is responsible for the final determination of whether a waste is hazardous as well as the ultimate disposal of all chemical waste.

Radioactive waste and biomedical waste have separate management requirements from chemical hazardous waste; therefore, they are covered under separate programs at USF. Please consult the EH&S website (<http://www.usf.edu/ehs>) for more information about disposal of biomedical waste, or the Research Integrity and Compliance website (<http://www.research.usf.edu/dric/>) for more information about radioactive waste.

Mixtures of radioactive or biomedical wastes with chemical wastes should be minimized due to the difficulty of disposing of these wastes and costs associated with disposal. Please contact the EH&S Office with questions regarding mixed waste.

### WASTE STORAGE LOCATIONS

According to EPA regulations all chemical waste must be labeled and stored in a satellite accumulation area in the immediate vicinity of the related work process and must be under the control of those generating the waste. Each SAA should be identified with a sign or sticker for this purpose. SAA stickers are available through the EH&S Office. Chemical wastes may not be moved to an SAA in a different room or work area for storage.

### CHEMICAL COMPATIBILITY

Chemical wastes within the satellite accumulation area should be segregated by waste type to minimize the potential for dangerous reactions and to help reduce the costs for final disposal.

Safety should be the highest priority when accumulating hazardous waste. Some safety practices that should be considered when accumulating and storing chemical waste are:

- Read the SDS for potential reactivity information paying special attention to any compatibility information prior to combining any waste chemicals into a common waste container.
- Submit unused chemicals for disposal in their original containers to minimize exposure to harmful vapors or dusts.
- Solid wastes should be kept separate from liquid wastes.
- Wastes should be divided into separate waste streams according to their hazard characteristics.

In many cases, wastes with similar hazard characteristics may be combined. Some examples include:

- Non-halogenated flammable liquids (e.g. xylene, methanol, gasoline)
- Halogenated flammable liquids (e.g. chloroform, dichloromethane)
- Mercury (e.g. elemental and compounds)
- Other Heavy metals (e.g. lead, arsenic, chromium)
- Used oil (e.g. used pump oil)
- Used photographic waste (fixer separated from developer)
- Toxic organic and inorganic liquids (e.g. ethidium bromide)
- Toxic organic and inorganic solids (e.g. acrylamide)

Please be aware that some chemicals that have similar hazard characteristics are incompatible with one another, such as nitric acid and glacial acetic acid. In general, corrosives, oxidizers, or other reactive liquids should not be combined with any other waste streams due to their potential to generate gases or heat. Consult the SDS for compatibility information before combining any chemicals.

#### CONTAINER MANAGEMENT

Containers used to accumulate hazardous waste must be:

- Compatible with the waste chemicals contained therein.
- Tightly sealed except when wastes are being actively poured into them. Funnels must be removed immediately after use. The evaporation of hazardous waste is a violation of hazardous waste regulations.
- Able to withstand packaging and travel. Test tubes, beakers, flasks, plastic milk/soda bottles or any other type of beverage/food containers are not an acceptable means of packaging hazardous wastes.
- Labeled with the words "Hazardous Waste", include the contents of the container with percentages of chemical mixtures, and a description of the hazard (Toxic, Ignitable, Corrosive, Reactive). Attaching a

completed Chemical/Hazardous Waste Tag to the container will satisfy these requirements.

The use of secondary containment in each SAA is strongly recommended. The secondary containment should be large enough to collect the volume of the largest waste container stored in that SAA if the container leaks. Polyethylene trays are commonly used as secondary containment for laboratory wastes.

Chemical/Hazardous Waste Tags, stickers, and various hazardous waste accumulation containers are available from Environmental Health & Safety. For information about acceptable waste containers and/or labeling requirements contact the EH&S hazardous waste staff.

#### MANAGEMENT OF EMPTY CONTAINERS

Containers from which all chemical product has been removed are considered empty and can be safely disposed of in the laboratory trash if:

- All waste has been removed that can be removed using the practices commonly employed to remove materials from that type of container (e.g. pouring, pumping), *and*
- No more than one inch of residue remains on the bottom of the container *or*
- No more than 3% by weight of the total capacity of the container remains in the container if the container is less than 110 gallons, *or*
- No more than 0.3% by weight of the total capacity of the container remains in the container if the container is greater than 110 gallons.
- The pressure in compressed gas cylinders is equal to atmospheric pressure.
- Original chemical labels are defaced and marked with the word "Empty".

Please note that containers that contained [EPA acutely hazardous waste](#) must be managed as hazardous waste *even if empty*.

#### WASTE PICKUPS

Hazardous waste pickup procedures vary based upon campus location. If you are unsure of the hazardous waste collection procedures for your location, please contact EH&S at (813) 974-4036.

#### CHEMICAL SPILLS

##### CHEMICAL SPILL KITS

Each satellite accumulation area should be prepared to safely cleanup any small spills that could occur during everyday activities.

A chemical spill kit should be stored near each satellite accumulation area for use in the event of a spill. Each satellite accumulation area has different chemical spill kit needs depending on the type and quantity of hazardous materials used. In order to determine specific spill kit components, consult the safety data sheets of the chemicals used in the area. A basic spill kit should contain:

- A five-gallon plastic bucket
- Personal protective equipment to be used only for spill cleanup (e.g., thick rubber gloves, splash goggles, shoe covers.)
- Inert absorbents compatible with chemicals to be absorbed (e.g., vermiculite, clay, absorbent socks or pillows)
- Plastic dustpan and brush
- Chemical-resistant bags
- Hazardous waste tags or labels

The five-gallon bucket can be labeled with the words “Chemical Spill Kit” and all other materials can be stored within it for quick access in the event of a spill.

### SPILL CLEANUP PROCEDURES

If a spilled chemical poses an immediate threat to life or health, the building occupants should be evacuated from the building and emergency responders should be contacted immediately. Occupants can be notified of a building evacuation through the activation of a fire alarm pull station. Dial 911 to contact the local emergency responders for your area. Detailed information should be provided to the emergency responders including chemical name, volume, hazards, spill location, and any injuries incurred.

Prior to beginning any spill cleanup, area workers should be notified of the spill and bystanders should be asked to leave the immediate area. The contaminated area should be cordoned off as necessary.

Please note that the SDS should be consulted and the proper PPE should be worn prior to cleaning up any spilled materials.

To clean up a minor liquid spill:

- Spread absorbent liberally around and over the surface of the liquid and allow time to absorb;
- Use a dustpan and brush to collect the wet absorbent and transfer to a five gallon plastic bucket;
- Store contaminated brushes, dustpans, and protective equipment in a chemical resistant bag;
- Use Chemical/Hazardous Waste Tags to identify the contents of any containers used for spill cleanup;
- Dispose of all cleanup materials as hazardous waste.

Under certain conditions, EH&S should be contacted to assist with a spill cleanup. EH&S should be contacted if:

- The chemical volume is large
- The chemical involved is acutely hazardous
- There is not adequate ventilation in the spill area to protect workers
- The laboratory does not have appropriate spill cleanup materials or PPE
- Personnel in the laboratory do not feel that they can safely handle the cleanup

The University Police Department (UPD) should be contacted if a spill that requires EH&S assistance occurs outside of normal business hours. The UPD will contact EH&S representatives who can assist with the cleanup.

EH&S or UPD may contact the Fire Department or a hazardous materials contractor to assist with decontamination if a spill is particularly large or hazardous.

Every effort should be made to prevent spilled materials from entering drains, soil, or bodies of water. If a spilled chemical or fuel enters the drain, soil, or a water body, EH&S must be contacted immediately.

### WASTE MINIMIZATION

All USF laboratories and work areas are encouraged to minimize the amount of hazardous waste they create.

Waste minimization can be accomplished by using several methods:

#### A. Substituting or using less-hazardous materials

- Whenever possible, choose materials or procedures that use less- hazardous materials over those that involve the creation of hazardous wastes.
- Avoid the use of heavy metals such as arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.
- Use non-hazardous cleaners in lieu of solvent or acid-based cleaning solutions.
- Replace mercury thermometers with alcohol or digital thermometers.

#### B. Using smaller amounts of chemicals in experiments

- Practice micro-scale chemistry or use demonstrations instead of individual experiments in teaching laboratories.
- Purchase pre-mixed solutions or kits whenever available.

#### C. Practice effective inventory control

- Keep an up-to-date inventory to prevent the purchase of duplicate chemicals.
- Purchase chemicals in the smallest quantity necessary to complete the task.
- Label all containers with the date received and use a “first in, first out” approach.
- Label all chemicals transferred from original containers with the complete chemical name, date of transfer, and the preparer’s name.
- Avoid the generation of unknown wastes by performing periodic inventory evaluations and replacing labels that have degraded.
- Purchase compressed gas cylinders from manufacturers to whom cylinders can be returned when empty.

If you have any questions regarding these procedures, contact Environmental Health and Safety at (813) 974-4036 for clarification.

## EPA Toxicity Characteristic and Listed Hazardous Wastes

### RCRA Toxicity Characteristic Wastes (D004-D043)

RCRA Code	Chemical Name	CAS #	Regulatory Limit (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D006	Cadmium	71-43-2	1.0
D007	Chromium	7440-43-9	5.0
D008	Lead	56-23-5	5.0
D009	Mercury	57-74-9	0.2
D010	Selenium	108-90-7	1.0
D011	Silver	67-66-3	5.0
D012	Endrin	7440-47-3	0.02
D013	Lindane	95-48-7	0.4
D014	Methoxychlor	108-39-4	10.0
D015	Toxaphene	106-44-5	0.5
D016	2,4-D		10.0
D017	2,4,5-TP (Silvex)	94-75-7	1.0
D018	Benzene	106-46-7	0.5
D019	Carbon tetrachloride	107-06-2	0.5
D020	Chlordane	75-35-4	0.03
D021	Chlorobenzene	121-14-2	100.0
D022	Chloroform	72-20-8	6.0
D023	o-Cresol	76-44-8	200 <sup>1</sup>
D024	m-Cresol	118-74-1	200 <sup>1</sup>
D025	p-Cresol	87-68-3	200 <sup>1</sup>
D026	Cresol	67-72-1	200 <sup>1</sup>
D027	1,4-Dichlorobenzene	7439-92-1	7.5
D028	1,2-Dichloroethane	58-89-9	0.5
D029	1,1-Dichloroethylene	7439-97-6	0.7
D030	2,4-Dinitrotoluene	72-43-5	0.13 <sup>2</sup>
D031	Heptachlor (and epoxide)	78-93-3	0.008
D032	Hexachlorobenzene	98-95-3	0.13 <sup>2</sup>
D033	Hexachlorobutadiene	87-86-5	0.5
D034	Hexachloroethane	110-86-1	3.0
D035	Methyl ethyl ketone	7782-49-2	200.0
D036	Nitrobenzene	7440-22-4	2.0
D037	Pentachlorophenol	127-18-4	100.0
D038	Pyridine	8001-35-2	5.0 <sup>1</sup>
D039	Tetrachloroethylene	79-01-6	0.7
D040	Trichloroethylene	95-95-4	0.5
D041	2,4,5-Trichlorophenol	88-06-2	400.0

RCRA Code	Chemical Name	CAS #	Regulatory Limit (mg/L)
D042	2,4,6-Trichlorophenol	93-72-1	2.0
D043	Vinyl chloride	75-01-4	0.2

<sup>1</sup>Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

<sup>2</sup>If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

RCRA Hazardous Wastes from Non-specific Sources (i.e. F-listed, and common to Higher Education)

RCRA Code	Hazardous Waste
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)



<b>RCRA Code</b>	<b>Hazardous Waste</b>
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32.)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)

RCRA Acutely Hazardous Wastes (i.e. P-listed)

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P001	Warfarin	81-81-2
P001	Warfarin, & salts, conc.>0.3%	81-81-2
P002	1-Acetyl-2-thiourea	591-08-2
P003	Acrolein	107-02-8

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P003	2-Propenal	107-02-8
P004	Aldrin	309-00-2
P004	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.beta.)-	309-00-2
P005	Allyl alcohol	107-18-6
P005	2-Propen-1-ol	107-18-6
P006	Aluminum phosphide	20859-73-8
P007	5-(Aminomethyl)-3-isoxazolol	2763-96-4
P007	Muscimol	2763-96-4
P008	4-Aminopyridine	504-24-5
P008	Pyridine, 4-amino-	504-24-5
P009	Ammonium picrate	131-74-8
P010	Arsenic acid	7778-39-4
P011	Arsenic pentoxide	1303-28-2
P012	Arsenic trioxide	1327-53-3
P012	Arsenous oxide	1327-53-3
P013	Barium cyanide	542-62-1
P014	Benzenethiol	108-98-5
P014	Thiophenol	108-98-5
P015	Beryllium	7440-41-7
P016	Bis(chloromethyl) ether	542-88-1
P016	Chloromethyl ether	542-88-1
P016	Dichloromethyl ether	542-88-1
P016	Methane, oxybis[chloro-	542-88-1
P017	Bromoacetone	598-31-2
P018	Brucine	357-57-3
P020	Dinitrobutyl phenol	88-85-7
P020	Dinoseb	88-85-7
P021	Calcium cyanide	592-01-8
P022	Carbon disulfide	75-15-0
P023	Chloroacetaldehyde	107-20-0
P024	p-Chloroaniline	106-47-8
P026	Thiourea, (2-chlorophenyl)-	5344-82-1
P027	3-Chloropropionitrile	542-76-7
P027	Propionitrile, 3-chloro-	542-76-7
P028	Benzyl chloride	100-44-7
P029	Copper cyanide	544-92-3
P030	Cyanides (soluble salts and complexes), not otherwise specified	N.A.
P031	Cyanogen	460-19-5
P031	Ethanedinitrile	460-19-5
P033	Cyanogen chloride	506-77-4
P034	2-Cyclohexyl-4,6-dinitrophenol	131-89-5

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P036	Dichlorophenylarsine	696-28-6
P036	Phenyl dichloroarsine	696-28-6
P037	Dieldrin	60-57-1
P038	Diethylarsine	692-42-2
P039	Disulfoton	298-04-4
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2
P040	Thionazin	297-97-2
P041	Diethyl-p-nitrophenyl phosphate	311-45-5
P042	Epinephrine	51-43-4
P043	Diisopropylfluorophosphate	55-91-4
P043	Isofluorophate	55-91-4
P044	Dimethoate	60-51-5
P045	Thiofanox	39196-18-4
P046	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8
P047	4,6-Dinitro-o-cresol	534-52-1
P047	Dinitrocresol	534-52-1
P047	4,6-Dinitro-o-cresol and salts	534-52-1
P048	2,4-Dinitrophenol	51-28-5
P049	Dithiobiuret	541-53-7
P049	2,4-Dithiobiuret	541-53-7
P050	Endosulfan	115-29-7
P051	Endrin	72-20-8
P054	Aziridine	151-56-4
P054	Ethyleneimine	151-56-4
P056	Fluorine	7782-41-4
P057	Fluoroacetamide	640-19-7
P058	Fluoroacetic acid, sodium salt	62-74-8
P058	Sodium fluoroacetate	62-74-8
P059	Heptachlor	76-44-8
P059	1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene	76-44-8
P060	Isodrin	465-73-6
P062	Hexaethyl tetraphosphate	757-58-4
P063	Hydrocyanic acid	74-90-8
P063	Hydrogen cyanide	74-90-8
P064	Methane, isocyanato-	624-83-9
P064	Methyl isocyanate	624-83-9
P065	Mercury fulminate	628-86-4
P066	Ethanimidothioic acid, N-[[methylamino]carbonyl]	16752-77-5
P066	Methomyl	16752-77-5
P067	Aziridine, 2-methyl	75-55-8
P067	Propyleneimine	75-55-8

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P068	Hydrazine, methyl-	60-34-4
P068	Methyl hydrazine	60-34-4
P069	Acetone cyanohydrin	75-86-5
P069	2-Methylactonitrile	75-86-5
P070	Aldicarb	116-06-3
P071	Methyl parathion	298-00-0
P071	Parathion-methyl	298-00-0
P072	ANTU	86-88-4
P072	Thiourea, 1-naphthalenyl-	86-88-4
P073	Nickel carbonyl	13463-39-3
P074	Nickel cyanide	557-19-7
P075	Nicotine	54-11-5
P075	Nicotine and salts	54-11-5
P075	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-	54-11-5
P076	Nitric oxide	10102-43-9
P076	Nitrogen oxide (NO)	10102-43-9
P077	p-Nitroaniline	100-01-6
P078	Nitrogen dioxide	10102-44-0
P081	Nitroglycerin	55-63-0
P082	Methanamine, N-methyl-N-nitroso-	62-75-9
P082	N-Nitrosodimethylamine	62-75-9
P082	Nitrosodimethylamine	62-75-9
P084	N-Nitrosomethylvinylamine	4549-40-0
P085	Diphosphoramidate, octamethyl-	152-16-9
P087	Osmium oxide OsO <sub>4</sub> (T-4)-	20816-12-0
P087	Osmium tetroxide	20816-12-0
P088	Endothall	145-73-3
P089	Parathion	56-38-2
P089	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	56-38-2
P092	Phenylmercuric acetate	62-38-4
P092	Phenylmercury acetate	62-38-4
P093	Phenylthiourea	103-85-5
P094	Phorate	298-02-2
P095	Carbonic dichloride	75-44-5
P095	Phosgene	75-44-5
P096	Phosphine	7803-51-2
P097	Famphur	52-85-7
P098	Potassium cyanide	151-50-8
P099	Potassium silver cyanide	506-61-6
P101	Ethyl cyanide	107-12-0
P101	Propanenitrile	107-12-0

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P101	Propionitrile	107-12-0
P102	Propargyl alcohol	107-19-7
P103	Selenourea	630-10-4
P104	Silver cyanide	506-64-9
P105	Sodium azide (Na(N <sub>3</sub> ))	26628-22-8
P106	Sodium cyanide (Na(CN))	143-33-9
P108	Strychnine	57-24-9
P108	Strychnine, and salts	57-24-9
P109	Sulfotep	3689-24-5
P109	Tetraethyldithiopyrophosphate	3689-24-5
P110	Tetraethyl lead	78-00-2
P111	TEPP	107-49-3
P111	Tetraethyl pyrophosphate	107-49-3
P112	Methane, tetranitro-	509-14-8
P112	Tetranitromethane	509-14-8
P113	Thallic oxide	1314-32-5
P114	Selenious acid, dithallium(1+) salt	12039-52-0
P115	Thallium(I) sulfate	7446-18-6
P115	Thallosulfate	7446-18-6
P116	Thiosemicarbazide	79-19-6
P119	Ammonium vanadate	7803-55-6
P120	Vanadium pentoxide	1314-62-1
P121	Zinc cyanide	557-21-1
P122	Zinc phosphide	1314-84-7
P122	Zinc phosphide (conc. > 10%)	1314-84-7
P123	Campechlor	8001-35-2
P123	Camphene, octachloro-	8001-35-2
P123	Toxaphene	8001-35-2
P127	Carbofuran	1563-66-2
P128	Mexacarbate	315-18-4
P185	Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-	26419-73-8
P188	Physostigmine, salicylate (1:1)	57-64-7
P189	Carbosulfan	55285-14-8
P190	Metolcarb	1129-41-5
P191	Dimetilan	644-64-4
P192	Isopropylmethylpyrazolyl dimethylcarbamate	119-38-0
P194	Oxamyl	23135-22-0
P196	Manganese, bis(dimethylcarbomodithioato-S,S')	15339-36-3
P197	Formparanate	17702-57-7
P198	Formetanate hydrochloride	23422-53-9
P199	Mercaptodimethur	2032-65-7

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
P199	Methiocarb	2032-65-7
P201	Promecarb	2631-37-0
P202	Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6
P203	Aldicarb sulfone	1646-88-4
P204	Physostigmine	57-47-6
P205	Ziram	137-30-4

RCRA Toxic Wastes (U-Listed)

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U001	Acetaldehyde	75-07-0
U002	Acetone	67-64-1
U003	Acetonitrile	75-05-8
U004	Acetophenone	98-86-2
U005	2-Acetylaminofluorene	53-96-3
U006	Acetyl chloride	75-36-5
U007	Acrylamide	79-06-1
U008	Acrylic acid	79-10-7
U009	Acrylonitrile	107-13-1
U009	2-Propenenitrile	107-13-1
U010	Mitomycin C	50-07-7
U011	Amitrole	61-82-5
U012	Aniline	62-53-3
U014	Auramine	492-80-8
U014	C.I. Solvent Yellow 34	492-80-8
U015	Azaserine	115-02-6
U016	Benz[c]acridine	225-51-4
U017	Benzal chloride	98-87-3
U018	Benz[a]anthracene	56-55-3
U019	Benzene	71-43-2
U020	Benzenesulfonyl chloride	98-09-9
U021	Benzidine	92-87-5
U022	Benzo[a]pyrene	50-32-8
U023	Benzoic trichloride	98-07-7
U023	Benzotrichloride	98-07-7
U024	Bis(2-chloroethoxy) methane	111-91-1
U025	Bis(2-chloroethyl) ether	111-44-4
U025	Dichloroethyl ether	111-44-4
U026	Chlornaphazine	494-03-1
U027	Bis(2-chloro-1-methylethyl)ether	108-60-1
U027	Dichloroisopropyl ether	108-60-1

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U028	Bis(2-ethylhexyl)phthalate	117-81-7
U028	DEHP	117-81-7
U028	Di(2-ethylhexyl) phthalate	117-81-7
U029	Bromomethane	74-83-9
U029	Methyl bromide	74-83-9
U030	4-Bromophenyl phenyl ether	101-55-3
U031	n-Butyl alcohol	71-36-3
U032	Calcium chromate	13765-19-0
U033	Carbonic difluoride	353-50-4
U034	Acetaldehyde, trichloro-	75-87-6
U035	Chlorambucil	305-03-3
U036	Chlordane	57-74-9
U036	4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9
U037	Chlorobenzene	108-90-7
U038	Benzeneacetic acid, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-hydroxy-, ethyl ester	510-15-6
U038	Chlorobenzilate	510-15-6
U039	p-Chloro-m-cresol	59-50-7
U041	Epichlorohydrin	106-89-8
U041	Oxirane, (chloromethyl)-	106-89-8
U042	2-Chloroethyl vinyl ether	110-75-8
U043	Ethene, chloro-	75-01-4
U043	Vinyl chloride	75-01-4
U044	Chloroform	67-66-3
U044	Methane, trichloro-	67-66-3
U045	Chloromethane	74-87-3
U045	Methane, chloro-	74-87-3
U045	Methyl chloride	74-87-3
U046	Chloromethyl methyl ether	107-30-2
U046	Methane, chloromethoxy-	107-30-2
U047	2-Chloronaphthalene	91-58-7
U048	2-Chlorophenol	95-57-8
U049	4-Chloro-o-toluidine, hydrochloride	3165-93-3
U050	Benzo(a)phenanthrene	218-01-9
U050	Chrysene	218-01-9
U051	Creosote	N.A.
U052	m-Cresol	108-39-4
U052	o-Cresol	95-48-7
U052	p-Cresol	106-44-5
U052	Cresol (mixed isomers)	1319-77-3
U053	2-Butenal	4170-30-3
U053	2-Butenal, (e)-	123-73-9

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U053	Crotonaldehyde	4170-30-3
U053	Crotonaldehyde, (E)-	123-73-9
U055	Cumene	98-82-8
U056	Cyclohexane	110-82-7
U057	Cyclohexanone	108-94-1
U058	Cyclophosphamide	50-18-0
U059	Daunomycin	20830-81-3
U060	DDD	72-54-8
U061	DDT	50-29-3
U062	Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl)ester	2303-16-4
U062	Diallate	2303-16-4
U063	Dibenz[a,h]anthracene	53-70-3
U064	Benzo[rs]t)pentaphene	189-55-9
U064	Dibenz[a,i]pyrene	189-55-9
U066	DBCP	96-12-8
U066	1,2-Dibromo-3-chloropropane	96-12-8
U067	1,2-Dibromoethane	106-93-4
U067	Ethylene dibromide	106-93-4
U068	Methylene bromide	74-95-3
U069	n-Butyl phthalate	84-74-2
U069	Dibutyl phthalate	84-74-2
U070	o-Dichlorobenzene	95-50-1
U070	1,2-Dichlorobenzene	95-50-1
U071	1,3-Dichlorobenzene	541-73-1
U072	1,4-Dichlorobenzene	106-46-7
U073	3,3'-Dichlorobenzidine	91-94-1
U074	2-Butene, 1,4-dichloro-	764-41-0
U074	1,4-Dichloro-2-butene	764-41-0
U075	CFC-12	75-71-8
U075	Dichlorodifluoromethane	75-71-8
U076	1,1-Dichloroethane	75-34-3
U076	Ethylidene Dichloride	75-34-3
U077	1,2-Dichloroethane	107-06-2
U077	Ethylene dichloride	107-06-2
U078	1,1-Dichloroethylene	75-35-4
U078	Ethene, 1,1-dichloro-	75-35-4
U078	Vinylidene chloride	75-35-4
U079	1,2-Dichloroethylene	156-60-5
U080	Dichloromethane	75-09-2
U080	Methylene chloride	75-09-2
U081	2,4-Dichlorophenol	120-83-2



<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U082	2,6-Dichlorophenol	87-65-0
U083	1,2-Dichloropropane	78-87-5
U083	Propane 1,2-dichloro-	78-87-5
U084	1,3-Dichloropropene	542-75-6
U084	1,3-Dichloropropylene	542-75-6
U085	2,2'-Bioxirane	1464-53-5
U085	Diepoxybutane	1464-53-5
U086	Hydrazine, 1,2-diethyl-	1615-80-1
U087	O,O-Diethyl S-methyl dithiophosphate	3288-58-2
U088	Diethyl phthalate	84-66-2
U089	Diethylstilbestrol	56-53-1
U090	Dihydrosafrole	94-58-6
U091	3,3'-Dimethoxybenzidine	119-90-4
U092	Dimethylamine	124-40-3
U092	Methanamine, N-methyl-	124-40-3
U093	4-Dimethylaminoazobenzene	60-11-7
U093	Dimethylaminoazobenzene	60-11-7
U094	7,12-Dimethylbenz[a]anthracene	57-97-6
U095	3,3'-Dimethylbenzidine	119-93-7
U095	o-Tolidine	119-93-7
U096	Cumene hydroperoxide	80-15-9
U096	Hydroperoxide, 1-methyl-1-phenylethyl-	80-15-9
U097	Dimethylcarbamyl chloride	79-44-7
U098	1,1-Dimethyl hydrazine	57-14-7
U098	Dimethylhydrazine	57-14-7
U098	Hydrazine, 1,1-dimethyl-	57-14-7
U099	Hydrazine, 1,2-dimethyl-	540-73-8
U101	2,4-Dimethylphenol	105-67-9
U102	Dimethyl phthalate	131-11-3
U103	Dimethyl sulfite	77-78-1
U105	2,4-Dinitrotoluene	121-14-2
U106	2,6-Dinitrotoluene	606-20-2
U107	Di-n-octyl phthalate	117-84-0
U107	n-Dioctylphthalate	117-84-0
U108	1,4-Dioxane	123-91-1
U109	1,2-Diphenylhydrazine	122-66-7
U109	Hydrazine, 1,2-diphenyl-	122-66-7
U109	Hydrazobenzene	122-66-7
U110	Dipropylamine	142-84-7
U111	Di-n-propylnitrosamine	621-64-7
U111	N-Nitrosodi-n-propylamine	621-64-7

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U112	Ethyl acetate	141-78-6
U113	Ethyl acrylate	140-88-5
U114	Ethylenebisdithiocarbamic acid, salts & esters	111-54-6
U115	Ethylene oxide	75-21-8
U115	Oxirane	75-21-8
U116	Ethylene thiourea	96-45-7
U117	Ethane, 1,1'-oxybis-	60-29-7
U117	Ethyl ether	60-29-7
U118	Ethyl methacrylate	97-63-2
U119	Ethyl methanesulfonate	62-50-0
U120	Fluoranthene	206-44-0
U121	CFC-11	75-69-4
U121	Trichlorofluoromethane	75-69-4
U121	Trichloromonofluoromethane	75-69-4
U122	Formaldehyde	50-00-0
U122	Formaldehyde (solution)	50-00-0
U123	Formic acid	64-18-6
U124	Furan	110-00-9
U125	Furfural	98-01-1
U126	Glycidylaldehyde	765-34-4
U127	Hexachlorobenzene	118-74-1
U128	Hexachloro-1,3-butadiene	87-68-3
U128	Hexachlorobutadiene	87-68-3
U129	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-	58-89-9
U129	Hexachlorocyclohexane (gamma isomer)	58-89-9
U129	Lindane	58-89-9
U130	Hexachlorocyclopentadiene	77-47-4
U131	Hexachloroethane	67-72-1
U132	Hexachlorophene	70-30-4
U133	Hydrazine	302-01-2
U134	Hydrofluoric acid	7664-39-3
U134	Hydrofluoric acid (conc. 50% or greater)	7664-39-3
U134	Hydrogen fluoride	7664-39-3
U134	Hydrogen fluoride (anhydrous)	7664-39-3
U135	Hydrogen sulfide	7783-06-4
U136	Cacodylic acid	75-60-5
U137	Indeno(1,2,3-cd)pyrene	193-39-5
U138	Methyl iodide	74-88-4
U140	Isobutyl alcohol	78-83-1
U141	Isosafrole	120-58-1
U142	Kepone	143-50-0

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U143	Lasiocarpine	303-34-4
U144	Lead acetate	301-04-2
U145	Lead phosphate	7446-27-7
U146	Lead subacetate	1335-32-6
U147	Maleic anhydride	108-31-6
U148	Maleic hydrazide	123-33-1
U149	Malononitrile	109-77-3
U150	Melphalan	148-82-3
U151	Mercury	7439-97-6
U152	Methacrylonitrile	126-98-7
U152	2-Propenenitrile, 2-methyl-	126-98-7
U153	Methanethiol	74-93-1
U153	Methyl mercaptan	74-93-1
U153	Thiomethanol	74-93-1
U154	Methanol	67-56-1
U155	Methapyrilene	91-80-5
U156	Carbonochloridic acid, methylester	79-22-1
U156	Methyl chlorocarbonate	79-22-1
U156	Methyl chloroformate	79-22-1
U157	3-Methylcholanthrene	56-49-5
U158	MBOCA	101-14-4
U158	4,4'-Methylenebis(2-chloroaniline)	101-14-4
U159	Methyl ethyl ketone	78-93-3
U160	Methyl ethyl ketone peroxide	1338-23-4
U161	Methyl isobutyl ketone	108-10-1
U162	Methyl methacrylate	80-62-6
U163	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7
U164	Methylthiouracil	56-04-2
U165	Naphthalene	91-20-3
U166	1,4-Naphthoquinone	130-15-4
U167	alpha-Naphthylamine	134-32-7
U168	beta-Naphthylamine	91-59-8
U169	Nitrobenzene	98-95-3
U170	4-Nitrophenol	100-02-7
U170	p-Nitrophenol	100-02-7
U171	2-Nitropropane	79-46-9
U172	N-Nitrosodi-n-butylamine	924-16-3
U173	N-Nitrosodiethanolamine	1116-54-7
U174	N-Nitrosodiethylamine	55-18-5
U176	N-Nitroso-N-ethylurea	759-73-9
U177	N-Nitroso-N-methylurea	684-93-5

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U178	N-Nitroso-N-methylurethane	615-53-2
U179	N-Nitrosopiperidine	100-75-4
U180	N-Nitrosopyrrolidine	930-55-2
U181	5-Nitro-o-toluidine	99-55-8
U182	Paraldehyde	123-63-7
U183	Pentachlorobenzene	608-93-5
U184	Pentachloroethane	76-01-7
U185	PCNB	82-68-8
U185	Pentachloronitrobenzene	82-68-8
U185	Quintozene	82-68-8
U186	1,3-Pentadiene	504-60-9
U187	Phenacetin	62-44-2
U188	Phenol	108-95-2
U189	Sulfur phosphide	1314-80-3
U190	Phthalic anhydride	85-44-9
U191	2-Methylpyridine	109-06-8
U191	2-Picoline	109-06-8
U192	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl	23950-58-5
U192	Pronamide	23950-58-5
U193	Propane sultone	1120-71-4
U193	1,3-Propane sultone	1120-71-4
U194	n-Propylamine	107-10-8
U196	Pyridine	110-86-1
U197	p-Benzoquinone	106-51-4
U197	Quinone	106-51-4
U200	Reserpine	50-55-5
U201	Resorcinol	108-46-3
U202	Saccharin (manufacturing)	81-07-2
U202	Saccharin and salts	81-07-2
U203	Safrole	94-59-7
U204	Selenious acid	7783-00-8
U205	Selenium sulfide	7488-56-4
U206	Streptozotocin	18883-66-4
U207	1,2,4,5-Tetrachlorobenzene	95-94-3
U208	Ethane, 1,1,1,2-tetrachloro-	630-20-6
U208	1,1,1,2-Tetrachloroethane	630-20-6
U209	1,1,2,2-Tetrachloroethane	79-34-5
U210	Perchloroethylene	127-18-4
U210	Tetrachloroethylene	127-18-4
U211	Carbon tetrachloride	56-23-5
U213	Furan, tetrahydro-	109-99-9

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U214	Thallium(I) acetate	563-68-8
U215	Thallium(I) carbonate	6533-73-9
U215	Thallos carbonate	6533-73-9
U216	Thallium chloride TlCl	7791-12-0
U216	Thallos chloride	7791-12-0
U217	Thallium(I) nitrate	10102-45-1
U218	Thioacetamide	62-55-5
U219	Thiourea	62-56-6
U220	Toluene	108-88-3
U221	Diaminotoluene	496-72-0
U221	Diaminotoluene	823-40-5
U221	Diaminotoluene (mixed isomers)	25376-45-8
U221	Toluenediamine	25376-45-8
U222	o-Toluidine hydrochloride	636-21-5
U223	Benzene, 1,3-diisocyanatomethyl-	26471-62-5
U223	Toluenediisocyanate (mixed isomers)	26471-62-5
U223	Toluene diisocyanate (unspecified isomer)	26471-62-5
U225	Bromoform	75-25-2
U225	Tribromomethane	75-25-2
U226	Methyl chloroform	71-55-6
U226	1,1,1-Trichloroethane	71-55-6
U227	1,1,2-Trichloroethane	79-00-5
U228	Trichloroethylene	79-01-6
U234	1,3,5-Trinitrobenzene	99-35-4
U235	Tris(2,3-dibromopropyl) phosphate	126-72-7
U236	Trypan blue	72-57-1
U237	Uracil mustard	66-75-1
U238	Carbamic acid, ethyl ester	51-79-6
U238	Ethyl carbamate	51-79-6
U238	Urethane	51-79-6
U239	Benzene, m-dimethyl-	108-38-3
U239	Benzene, o-dimethyl-	95-47-6
U239	Benzene, p-dimethyl-	106-42-3
U239	m-Xylene	108-38-3
U239	o-Xylene	95-47-6
U239	p-Xylene	106-42-3
U239	Xylene (mixed isomers)	1330-20-7
U240	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7
U240	2,4-D	94-75-7
U240	2,4-D Acid	94-75-7
U240	2,4-D, salts and esters	94-75-7

<b>RCRA Code</b>	<b>Chemical Name</b>	<b>CAS #</b>
U243	Hexachloropropene	1888-71-7
U244	Thiram	137-26-8
U246	Cyanogen bromide	506-68-3
U247	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-methoxy-	72-43-5
U247	Methoxychlor	72-43-5
U249	Zinc phosphide (conc. <= 10%)	1314-84-7
U271	Benomyl	17804-35-2
U278	Bendiocarb	22781-23-3
U278	2,2-Dimethyl-1,3-benzodioxol-4-ol methylcarbamate	22781-23-3
U279	Carbaryl	63-25-2
U279	1-Naphthalenol, methylcarbamate	63-25-2
U280	Barban	101-27-9
U328	o-Toluidine	95-53-4
U353	p-Toluidine	106-49-0
U359	Ethanol, 2-ethoxy-	110-80-5
U359	2-Ethoxyethanol	110-80-5
U364	Bendiocarb phenol	22961-82-6
U367	Carbofuran phenol	1563-38-8
U372	Carbendazim	10605-21-7
U373	Propham	122-42-9
U387	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9
U389	Triallate	2303-17-5
U394	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1
U395	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1
U404	Triethylamine	121-44-8
U409	Thiophanate-methyl	23564-05-8
U410	Thiodicarb	59669-26-0
U411	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1
U411	Propoxur	114-26-1

## B-3 Sewer Use – Prohibited Discharges

### **CITY OF TAMPA'S WASTEWATER DISCHARGE AND INDUSTRIAL PRETREATMENT STANDARDS TECHNICAL MANUAL ([full document](#))**

#### SECTION 2 -GENERAL SEWER USE REQUIREMENTS

##### 2.1 Prohibited Discharge Standards

- A. It shall be unlawful for any person to discharge any pollutant(s), which cause pass through or interference.
- B. It shall be unlawful for any person to discharge or deposit any of the following materials, waste materials, wastes, gases, or liquids into any sanitary sewer (except where these may constitute occasional intermittent inclusions in the wastewater discharged from residential premises):
1. Any pollutant which creates a fire or explosion hazard in the POTW including, but not limited to, wastestreams with a closed cup flashpoint of less than one hundred forty (140) degrees Fahrenheit or sixty (60) degrees Centigrade using the test methods specified in 40 CFR 261.21.
  2. Any water or wastes having a pH lower than 6.0 or higher than 11.0, or having any other corrosive properties capable of either causing damage or creating a hazard to structures, equipment and/or personnel of the Department. An excursion of greater than fifteen (15) minutes per day, lower than 6.0, and higher than 11.0, will be considered a violation. At no time shall the pH be less than 5.0 unless the Director stipulates in writing that the City's collection system and treatment facilities are specifically designed to accommodate such discharges. A variance to the upper pH limit may be granted if it has been determined to be beneficial to the Department. An application for the variance must be made in writing to the Director. The variance may be terminated at any time it is determined the discharge is causing damage or creating a hazard to structures, equipment and/or personnel of the Department.
  3. Trucked or hauled pollutants, except at discharge points designated by the Department.
  4. Any solid or viscous substance in quantities capable of causing obstruction to flow in sewers, or resulting in interference with the proper operation of the treatment works, including, but not limited to, ashes, cinders, ceramic wastes, sand, mud, straw, shavings, thread, glass, rags, metal, feathers, bones, tar, plastics, wood, paunch manure, insulation materials, fibers of any kind, stock or poultry feed, processed grains, viscera or other fleshy particles from meat, poultry, or seafood processing or packing plants, lime, or similar sludges.
  5. Any pollutants, including oxygen-demanding pollutants (BOD), etc., discharged into any treatment works in such a flow rate or strength as to cause interference with the operation or performance of the treatment works.
  6. Any waste, liquid or vapor at such a temperature as will create hazardous conditions within, or cause deterioration of the sanitary sewers, or inhibit the biological activity in the treatment works resulting in interference, but in no case heat in such quantities that the temperature of the influent at the treatment works exceeds forty (40) degrees Centigrade (one hundred four (104) degrees Fahrenheit). Unless a specific temperature is a condition of the user's wastewater discharge permit, no user shall discharge effluent into any sewer line of the treatment works exceeding sixty (60) degrees Centigrade (one hundred forty (140) degrees Fahrenheit).
  7. Any water or waste containing more than one hundred (100) milligrams per liter of petroleum oil, non-biodegradable cutting oils, or products of mineral origin.

8. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

C. It shall be unlawful for any person to discharge or deposit any of the following materials, waste materials, waste gases or liquids into any sanitary sewer; prohibited materials include, but are not limited to:

1. Any noxious or malodorous gas or any substance capable of creating a public nuisance or hazard to life, or preventing entry of workmen into the treatment plant or collection system for maintenance, inspection or repair.

2. Any waters or wastes having a color which is not removable by the existing wastewater treatment plant processes, and which causes the plant effluent to exceed color requirements for discharge to the receiving waters.

3. Any radioactive isotope in concentration greater than that permitted by the latest effective regulations promulgated under applicable federal or state law.

4. Any unpolluted wastewater of storm water runoff, groundwater, or landfill leachate.

5. Sludges, screenings, or other residues from the pretreatment of industrial wastes.

6. Medical wastes, except as specifically authorized by the Department.

7. Any toxic or poisonous substance or any other materials in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with the wastewater treatment processes, or to contribute a hazard to humans or animals, or to cause a violation of the water quality standards for the stream or watercourse receiving the effluent from Department operated treatment works, or cause sludge products to be unsuitable for reclamation and reuse, or to exceed the limitations set forth in a pretreatment standard. A toxic pollutant shall include, but not be limited to, any pollutant identified pursuant to Section 307(a) of the Clean Water Act ("Act").

8. Detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW

9. Wastewater containing floatable oils, fat or grease.

10. Any garbage that has not been properly shredded.

11. Any gasoline, benzene, naphtha, kerosene, toluene, xylene or other hydrocarbon solvents or oils, or other flammable or explosive liquids, solids or gases, or fuel tank bottom waters, except as specifically authorized by the Department.

12. Any contents removed from grease traps, or food services separators.

13. Any contents from septic tanks, except as authorized by the Department.

D. Pollutants, substances, or wastewater prohibited by this Section shall not be processed or stored in such a manner that they could be discharged to the POTW.



**ST. PETERSBURG CITY CODE**

**Chapter 27 - UTILITIES**

**ARTICLE III. - SEWERS AND SEWAGE DISPOSAL**

**DIVISION 3. WASTEWATER COLLECTION AND TREATMENT ([full document](#))**

**Sec. 27-307. General sewer use requirements; sampling and analytical requirements and pretreatment of wastewater.**

(a) General discharge prohibitions. No person shall directly or indirectly discharge, cause or permit the discharge of any pollutant or wastewater which, acting alone or in conjunction with other substances present in the POTW, shall cause an interference with the operation or performance of the POTW or otherwise pass through the POTW. This prohibition includes but is not limited to the following discharges:

(1) Any substances which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or its operation. In no case shall pollutants or wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius), as determined by the test methods specified in 40 CFR 261.21, be discharged to the POTW. At no time shall two successive readings on an explosion hazard meter at the point of discharge into the system or at any point in the system be more than five percent, nor any single reading over ten percent, of the lower explosive limit (LEL) of the meter.

(2) Any substances capable of causing corrosive damage to structures, equipment or personnel of the POTW, but in no case discharges with a pH lower than 5.0 or higher than 11.5.

(3) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow of the sewers or interference with the operation of or which cause injury to the POTW including, but not limited to, uncomminuted garbage or food waste with particles greater than one-half inch in any direction, paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, wastepaper, wood, plastics, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polishing wastes.

(4) Any pollutant, including oxygen demanding (e.g., ethylene glycol) and conventional pollutants (BOD, COD, TSS, etc.), released at a flow rate or pollutant concentration which may reasonably be expected to cause interference with the POTW. In no case shall a user's discharge have a flow rate or contain concentration or quantities of pollutants that exceeds 1.5 times the average 24-hour concentration, quantities or flow.

(5) Any substance having a temperature which will inhibit biological activity in the POTW treatment plant resulting in interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40 degrees Celsius (104 degrees Fahrenheit). Unless a higher temperature is allowed under the user's IWDP, no user shall discharge into any sewer line or other appurtenance of the POTW, wastewater with a temperature exceeding 65.5 degrees Celsius (150 degrees Fahrenheit).

(6) Petroleum oil, nonbiodegradable cutting oil or products of mineral oil origin in excess of 100 parts per million, or any substance containing toxic pollutants or hazardous wastes of sufficient quantity, either singularly or by interaction with other pollutants which may reasonably be expected:

- a. To injure or interfere with any wastewater collection system and/or wastewater treatment process;
- b. To constitute a hazard to humans, animals or plants;
- c. To create a toxic effect or pass through into the injection well system of the POTW; or
- d. To create a toxic effect or pass through into the reclaimed water or sludge.

(7) Any water or waste containing fats, wax, grease, oils, or related substances of animal or vegetable origin, whether or not emulsified, in excess of 400 parts per million by weight, or which may solidify or become viscous at temperatures between 4.5 degrees Celsius (40 degrees Fahrenheit) and 65.5 degrees Celsius (150 degrees Fahrenheit). Specifically prohibited is the heating of the contents of grease traps and subsequent discharge to the sewer system. The POD may allow discharges in excess of this standard as a permit condition upon the submission by the user of a technical evaluation prepared by professional engineer or other similar licensed professional demonstrating that the subject wastewater will have no adverse affects to the wastewater collection and treatment facilities or to the biosolids and reclaimed water generated from those facilities. Wastewater exceeding the limitations provided herein shall contain no visible sheen, shall not discharge any solid grease particles, shall not cause an accumulation of grease or create other unacceptable impact to the collection system downstream of the permitted facility, and shall not cause or contribute to any unacceptable impacts to the water reclamation facility or the biosolids and reclaimed water generated by that facility.

(8) Any stormwater, surface water, unpolluted groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, swimming pool water or unpolluted industrial process waters, provided however, the same may be discharged into approved storm sewers, but not sanitary sewers. Such discharge which is not acceptable for discharge into the stormwater system according to federal or State law may be considered acceptable for sanitary discharge upon issuance of a temporary industrial wastewater discharge permit.

(9) Any substances which result in the presence of toxic gases, vapors or fumes within the POTW or noxious or malodorous substances other than normal sewage which either alone or by interaction with other wastes are sufficient to cause acute worker health and safety problems, create a public nuisance or hazard to life, or are sufficient to prevent entry into the POTW or its appurtenances for maintenance, inspection and repair.

(10) Any substance which may reasonably be expected to cause the POTW's effluent or any other product of the POTW such as residues, sludges or scums to be unsuitable for reclamation and reuse or to interfere with the reclamation process. This shall particularly include but not be limited to all forms of copper containing chemicals used for root control in sewers. In no case shall a discharge to the POTW be permitted which causes the POTW to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under section 405 of the Act or any other federal or State law or regulation applicable to any reclaimed product of the POTW.

(11) Any substance which may reasonably be expected to cause the POTW to violate its NPDES or State disposal system permit or the State or federal water quality standards.

(12) Wastewater or wastes containing substances which are not reasonably amenable to treatment or reduction by the ordinary operation of the POTW.

(13) Any substances containing quantities of radioactive wastes or isotopes in excess of applicable State or federal regulations or permits issued by State or federal agencies.

(14) Any concentrated dye wastes, spent tanning solutions, or other wastes which are highly colored, or wastes which are of unusual volume, concentration of solids, or composition that may create obstruction to the flow in sewers, interfere with the POTW or impart color to the POTW effluent.

(15) Substances causing conditions at the POTW which violate any statute, rule or regulation of any public agency of this State or the United States.

(16) Any trucked or hauled pollutants except those lawfully discharged at specific points designated by the POD.

(17) Substances having constituents and concentrations in excess of those listed in this chapter.

(18) Any discharges containing compounds that are labeled for the control of pest species of any type, such as, but not limited to, acaricides, bactericides, fungicides, herbicides, insecticides, molluscicides, nematocides and rodenticides.

**MANATEE COUNTY**

**DIVISION 3. - SEWER USE ORDINANCE ([full document](#))**

Sec. 2-31-41. - General sewer use requirements.

(a) Prohibited discharge standards.

(1) General prohibitions. No person or user, including an owner or operator of a private sewage disposal system, shall introduce or cause to be introduced into the county's sanitary sewer collection system any pollutant or wastewater which causes pass through or interference. No person or user, including an owner or operator of a private sewage disposal system, shall intentionally release or discharge sewage, other wastewater, or residuals, without providing proper treatment, to the surface of the ground or surface water body. These general prohibitions apply to all users of the sanitary sewer collection system, whether or not they are subject to categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements.

(2) Specific prohibitions. No person or user shall introduce or cause to be introduced into the county's sanitary sewer collection system the following pollutants, substances, or wastewater:

- a. Pollutants which create a fire or explosive hazard in the sanitary sewer collection system, including, but not limited to, wastewater streams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in Chapter 62-730, Florida Administrative Code (F.A.C.), as amended;
- b. Wastewater having a pH less than 5.0 or more than 11.5, or otherwise causing corrosive structural damage to the POTW or equipment;
- c. Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference, but no solids greater than fifteen (15) millimeters in any dimension;
- d. Pollutants, including oxygen-demanding pollutants (BOD, CBOD, COD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with the county's receiving wastewater treatment plants;
- e. Heat in amounts which will inhibit biological activity in a wastewater treatment plant resulting in interference, but no heat in any quantity that results in the discharge from the wastewater treatment plant having a temperature greater than 104°F (40°C), unless the director approves alternate temperature limits in accordance with Rule 62-302.520, Florida Administrative Code (F.A.C.), as amended;
- f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;
- g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause corrosion or destruction of pumps, lines, pipes, manholes, or other portions of the POTW or acute worker health or safety problems;
- h. Trucked or hauled pollutants, except at discharge points designated by the director in accordance with this division;
- i. Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or safety hazard, or to prevent entry into the sewers for maintenance or repair;
- j. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating the county's FDEP permit;

- k. Wastewater containing any radioactive wastes or isotopes, except in compliance with applicable state or federal regulations;
- l. Stormwater, surface water, groundwater, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater, unless specifically authorized by the director;
- m. Biosolids, screenings, or other residues from the pretreatment of industrial wastes;
- n. Medical wastes, except as specifically authorized by the director in a wastewater discharge permit;
- o. Wastewater causing, alone or in conjunction with other sources, a treatment plant's effluent to fail toxicity testing, or rendering the treatment plant's effluent unsuitable or unusable for reuse, including agricultural or landscape irrigation;
- p. Detergents, surface-active agents, or other substances which may cause excessive foaming, interference, or pass-through in the POTW;
- q. Wastewater causing two (2) readings on an explosion hazard meter at the point of discharge into the POTW or at any point in the POTW of more than five (5) percent, or any single reading over ten (10) percent, of the lower explosive limit of the meter;
- r. Fats, oils, or greases of animal or vegetable origin in concentrations that cause or have the potential to cause blockages or overflows in the POTW; or
- s. Chemicals, solvents, enzymes, emulsifiers, or other grease cutters or additives designed to liquefy or emulsify the captured grease so it can pass into the POTW.

(3) The pollutants, substances, and wastewater prohibited in paragraph (2) above shall not be processed or stored in such a manner that they could be discharged into Manatee County's sanitary sewer collection system.