

UC DAVIS LOCAL LIMITS - SEWER DISPOSAL POLICY

UC Davis has developed the following policy governing sewer disposal.

1. General Discharge Prohibitions

Unless specifically approved by the Director (currently Facilities Management Utilities Director Michael Fan), no one is allowed discharge the following wastes into the campus sanitary sewer system (e.g., pour them down laboratory sink drains):

a. Excessive Quantities of Animal/Vegetable Oils

“Excessive” quantities of dispersed biodegradable oils or fats such as lard, tallow, or vegetable oil. What’s excessive? If it plugs up the sewer pipes or causes a smelly mess some where along the way to the wastewater treatment plant, it’s excessive. Also prohibited are any other substances that may precipitate, solidify, or become viscous at temperatures between 40 and 100 degrees F. To the extent possible, oils should not go down the drain.

b. Excessive Quantities of Petroleum Products

Any non-biodegradable cutting oil, petroleum oil, refined petroleum products, or products of mineral oil origin in amounts that could interfere with effective wastewater treatment or contribute to violations of the campus wastewater discharge permit.

c. Corrosive Materials

Any wastewater having pH less than 5.0 or greater than 11.0 or with other corrosive characteristics that might cause damage to pipes, pumps, and other equipment or create a hazard for maintenance workers.

d. Very Colorful Wastes

Strong dyes, tanning solutions, or similar wastes that might turn the wastewater treatment plant flows or the treated wastewater funny colors. Small quantities of biodegradable clothing dyes (e.g. from tie-dye projects) or food dyes would not typically be of concern.

e. Excessive Flows

Discharges of more than 1,000 gallons per day or flows greater than 20 gallons per minute from any single source. The Director needs to keep track of any large flows like these and approve any new discharges.

f. Explosive Mixtures

Any liquids, solids or gases that might cause fires or explosions. This includes waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees centigrade, using the test methods specified in 40 CFR 261.21, or which result in conditions where two successive readings on an explosion hazard meter at the point of discharge into the system (or at any point in the system), are more than 5%, or any single reading is over 10%, of the Lower Explosive Limit (LEL)—by definition these are hazardous wastes. Wastes containing the following constituents are of specific concern: gasoline, diesel fuel, kerosene, naphtha, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides. Note: small quantities of non-flammable aqueous mixtures containing primary alcohols at concentrations less than 24% are acceptable for sewer disposal.

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g. Toxic Pollutants and Hazardous Substances

Any wastewater containing toxic pollutants or hazardous substances in sufficient quantity, either alone or due to interaction with other pollutants, that negatively affect the wastewater treatment process, constitute a hazard to humans or animals, or that cause aquatic toxicity in Putah Creek. Prohibited wastes include those containing mercury; silver; carbon tetrachloride; 1,1-dichloroethene (1,1-DCE); 2-methyl-4,6-dinitrophenol; benzidine; 3,3' dichlorobenzidine; hexachlorobutadiene; hexachlorocyclopentadiene; and bis(2-ethylhexyl)phthalate.

h. Health and Safety Hazards

Any discharge that may, alone or in combination with other waste substances, result in the presence of toxic or poisonous solids, liquids, gases, vapors, or fumes in the sewer system or at the wastewater treatment plant at levels that create a hazard, public nuisance, or threaten the health and safety of workers.

i. High Temperature Wastes

Any wastewater that is so hot that it affects biological activity at the wastewater treatment plant. Wastewater hotter than 60 degrees C (140 degrees F) is prohibited. Wastewater between 40 and 60 degrees C (104-140 degrees F) is acceptable, provided the volume is relatively low—meaning it doesn't cause the influent temperature at the wastewater treatment plant to exceed 40 degrees C (104 degrees F). Wastewater below 40 degrees C (104 degrees F) is always acceptable.

j. Noxious Materials

Any noxious or malodorous liquids, gases, or solids that either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard or prevent maintenance access to pipes, pumps, and treatment equipment.

k. Wastes Causing Permit Violations

Any wastewater or substance that isn't effectively removed by the wastewater treatment process and contributes to a violation of the campus wastewater discharge permit. This includes any discharges that upset treatment processes or significantly reduce treatment efficiency.

l. PCBs and Dioxins

Any quantity of any of the following compounds:

- 1) Aroclors 1221, 1228, 1232, 1242, 1254, 1260, and 1262
- 2) 2,3,7,8-TCDD and equivalents (Dioxins)

m. Pesticides

Any pesticides in amounts that are not effectively removed by the wastewater treatment process and that could lead to violations of the campus wastewater discharge permit, including, but not limited to, the following pesticides: alpha-chlordane; DDD; DDE; DDT; dieldrin; endrin aldehyde; and heptachlor.

n. Radioactive Wastes

Any wastewater containing radioactive wastes.

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o. Septage

Any wastewater or sludge removed from a cesspool, septic tank, or chemical toilet, unless discharged to the sanitary sewer system in accordance with all provisions and restrictions set forth by the Director, including restrictions on time and place of discharge.

p. Sludge Contaminants

Any substance which may cause the WWTP's effluent, or any other product of the WWTP such as residues, sludges, or scums, to be unsuitable for reclamation and reuse. In no case shall a substance discharged to the WWTP cause the WWTP to violate applicable sludge use or disposal regulations developed under Section 405 of the Act (33 USC 1345) or any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act (CAA), Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), the Marine Protection, Research and Sanctuaries Act (MPRSA), or State Regulations.

q. Solids or Viscous Wastes

Any solid, semi-solid or viscous substances which may obstruct the flow of sewage or otherwise adversely affect sewage pumping equipment, or sewage sludge pumping equipment, or the sewer system, or interfere with the operation of the WWTP, such as, but not limited to, grease, garbage with particles greater than 1/2" in any dimension, dead animals, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, excessive quantities of whole blood, feathers, larger rubber monkey chew toys, ashes, cinders, earth, sand, mud, gravel, rocks, plaster, concrete, spent lime, stone or marble dust, metal, metal filings or shavings, wood, wood shavings, grass clippings, straw, spent grains, spent hops, waste paper, paper containers or other paper products, rags, plastics, tar, asphalt, asphalt residues, residues from refining or processing of fuel or lubricating oil, glass, or glass grinding or polishing wastes.

r. Soluble Oils

Any non-biodegradable cuttings oils, commonly called soluble oils, which form persistent water emulsions.

s. Trucked/Hauled Wastes

Any trucked or hauled pollutants or wastewater, unless discharged to the WWTP in accordance with all provisions and restrictions set forth by the Director, including restrictions on time and place of discharge.

t. Asbestos

Wastes containing asbestos at levels capable of causing WWTP effluent concentrations to exceed 7 million fibers per liter (for fiber lengths > 10 microns) or causing wastewater treatment plant sludge concentrations to exceed 1% (wet weight). Wastes containing fiber lengths <10 microns shall be reviewed and approved by the Director before drain disposal.

u. Ethidium Bromide

Because ethidium bromide is a powerful mutagen, the campus does not allow sewer disposal of any waste containing ethidium bromide at concentrations greater than 0.01 mg/l. Solutions of ethidium bromide exceeding this limit should either be treated as part of the experimental protocol or picked up by EH&S for disposal. Contact EH&S at 752-1493 for additional information.

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v. **Electrical Conductivity**

The campus wastewater treatment plant is currently in violation of a new permit limit that requires the treated wastewater to have an electrical conductivity (EC) of less than 900 umhos/cm. Any discharges that contribute to violations of this permit limit are not allowed. Wastes with an EC of less than 900 umhos/cm are suitable for disposal. Wastes that exceed 900 umhos/cm are not allowed, except as approved by the Director. New water softeners, dealkalizers, and any other devices that require salts for regeneration and discharge waste brine are not allowed without the specific written approval of the Director.

2. Prohibition Against Dilution

No person shall increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment or proper waste disposal to achieve compliance with General Prohibitions or Specific Pollutant Limitations.

3. Specific Pollutant Limitations (Local Limits)

No person shall, except as specifically approved by the Director, discharge or cause to be discharged to the WWTP any wastewater containing constituents at levels exceeding the Numeric Local Limits, except where said constituent levels only reflect water supply concentrations.

4. Special Restrictions - Vehicle Servicing Facilities

- a. Any facility maintained for the servicing, washing, cleaning, or repair of vehicles, roadway machinery, construction equipment, industrial transportation or power equipment with the potential to discharge resulting nondomestic wastewater to the WWTP shall install and maintain a gravity separation interceptor in accordance with Item 6 below. Wastewaters from toilets shall not be allowed to pass through this interceptor, but all wastewaters arising from the servicing and repair of vehicles shall pass through this interceptor before discharge to the WWTP. If the vehicle servicing facility only includes facilities for the washing of one vehicle at a time, the interceptor shall have a fluid detention capacity of not less than 100 gallons.

If the vehicle servicing facility has facilities for washing or cleaning more than one vehicle at a time, the interceptor shall be as large as necessary so that a seven day accumulation of sand and oil together will not fill more than twenty-five percent of the fluid capacity. The interceptor shall be designed so as to retain any oil and grease which will float and any sand that will settle.

5. Special Restrictions - Food Processing Facilities

- a. All food processing facilities discharging food processing wastes to the WWTP shall direct all wastewater from floor drains and sinks in the food processing area, waste container wash racks, and dishwashers through a two-compartment gravity separation interceptor in accordance with Item 6 below. All domestic wastewaters from restrooms,

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showers, mop sinks, and drinking fountains shall be kept separate until the previously specified wastes have passed through the interceptor. The interceptor shall have a minimum fluid capacity of 100 gallons, or as required by Appendix "H" of the Uniform Plumbing Code (latest), which ever is greater.

- b. Conditional waivers modifying or waiving the gravity separation interceptor requirements may be granted by the Director for those food processing facilities determined not to have adverse effects on the WWTP.

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6. Gravity Separation Interceptor

Each person so required by the Director shall install and maintain a gravity separation interceptor to provide wastewater treatment for floatable and settleable pollutants. Domestic wastewater shall not be allowed to pass through this interceptor. This interceptor shall have an operational fluid capacity of not less than 100 gallons and shall be designed so as to retain any material which will float and any material which will settle. The interceptor shall be watertight, structurally sound, and durable. Interceptors shall have no less than two compartments. Interceptors of 750 gallons capacity or larger, except those designed for food processing facilities, shall have no less than three compartments.

a. Interceptor Requirements

- 1) All interceptor chambers shall be immediately accessible at all times for the purpose of inspection and cleaning. At no time shall any material, debris, obstacles or obstructions be placed in such a manner so as to prevent immediate access to the interceptor.
- 2) All interceptors of 300 gallons capacity or larger shall be equipped with a sample chamber located at the downstream end of the interceptor. The sample chamber shall have a minimum 18 inch square clear opening for the temporary installation of portable automatic sampling equipment.
- 3) Any interceptor legally and properly installed before January 1, 1995 shall be acceptable as an alternative to the interceptor specified herein, provided such interceptor is effective in removing floatable and settleable material and is so designed and installed that it can be inspected and properly maintained.

b. Interceptor Approval

If a gravity separation interceptor is required, the Director shall only approve plumbing plans that include an interceptor which meets the requirements of this Section.

c. Interceptor Maintenance

All gravity separation interceptors shall be properly maintained. Each shall be cleaned as often as is necessary to ensure that sediment and floating materials do not accumulate to impair the efficiency of the interceptor. The use of chemicals to dissolve grease is specifically prohibited. When an interceptor is cleaned, the accumulated sediment and floating material shall be removed and legally disposed of otherwise than to the sewer.

An interceptor is not considered to be properly maintained if for any reason it is not in good working condition or if the operational fluid capacity has been reduced by more than 25% by the accumulation of floating and settled solids, oils and grease.