

CHAPTER 11

INDUSTRIAL WASTES

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Article 1. Industrial Wastes; Definitions; Prohibitions

Section 11-1. Definitions.

1. The term "City." means the City of Elk City, or any authorized person acting in its behalf;
2. The term "B.O.D." (Biochemical Oxygen Demand). means the quantity of oxygen by weight, expressed in mg/l, utilized in the biochemical oxidation of organic matter under standard laboratory conditions for five (5) days at a temperature of (20) degrees centigrade;
3. The term "C.O.D." (Chemical Oxygen Demand). means measure of the oxygen consuming capacity of inorganic and organic matter present in the water or wastewater expressed in mg/l as the amount of oxygen consumed from a chemical oxidant in a specific test, but not differentiating between stable and unstable organic matter, and thus not necessarily correlating with biochemical oxygen demand;
4. The term "Control Point". means a point of access to a course of discharge before the discharge mixes with other discharges in the public sewer;
5. The term "Industrial Waste". means waste resulting from any process of industry, manufacturing, trade, or business from the development of any natural resource, or any mixture of the waste with water or normal wastewater, or distinct from normal wastewater, or distinct from normal wastewater;
6. The term "Industrial Waste Charge". means the charge made on those persons who discharge industrial wastes into the City's sewerage system.
7. The term "Milligrams per Liter" (mg/l). means the same as parts per million and is a weight-to-volume ratio; the milligram-per-liter value multiplied by the factor 8.34 shall be equivalent to pounds per million gallons of water;

8. The term "Normal Domestic Wastewater". means wastewater excluding industrial wastewater discharged by a person into sanitary sewers and in which the average concentration of total suspended solids is not more than 300 mg/l and BOD is not more than 250 mg/l;

9. The term "pH". means the logarithm (Base 10) of the reciprocal of the hydrogen ion concentration;

10. The term "Public Sewer" means pipe or conduit carrying wastewater or unpolluted drainage in which owners of abutting properties shall have the use, subject to control by the City;

11. The term "Suspended Solids". means solids measured in mg/l that either float on the surface of, or are in suspension in, water, wastewater, or other liquids, and which are largely removable by a laboratory filtration device;

12. The term "Wastewater". means a combination of the water-carried waste from residences, business buildings, institutions, and industrial establishments, together with any ground, surface, and storm water that may be present;

13. The term "Wastewater Facilities". includes all facilities for collection, pumping, treating, and disposing of wastewater and industrial wastes;

14. The term "Wastewater Service Charge". means the charge on all users of the public sewer system whose wastes do not exceed in strength the concentration values established as representative of normal wastewater;

Section 11-2. Prohibited Discharges.

No person may discharge to public sewers any waste which by itself or by interaction with other wastes may:

- a. Injure or interfere with wastewater treatment processes or facilities;
- b. Constitute a hazard to humans or animals; or
- c. Create a hazard in receiving waters of the wastewater treatment plant effluent.

All discharges shall conform to requirements of this Ordinance.

Section 11-3. Chemical Discharges.

No discharge to public sewers may contain:

- a. Cyanide greater than 0.05 mg/l

- b. Fluoride other than that contained in the public water supply
- c. Chlorides in concentrations greater than 250 mg/l
- d. Gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas; or
- e. Substances causing an excessive Chemical Oxygen Demand (C.O.D.)

No waste or wastewater discharged to public waters may contain:

- a. Strong acid, iron pickling wastes, or concentrated plating solutions whether neutralized or not;
- b. Fats, wax, grease or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) and one hundred fifty (150) degrees Fahrenheit 0 and 65 degrees Centigrade;
- c. Objectionable or toxic substances, exerting an excessive chlorine requirement, to such degree that any such material received in the composite wastewater at the wastewater treatment works exceeds the limits established by the approving authority for such materials; or
- d. Obnoxious, toxic, or poisonous solids, liquids, or gases in quantities sufficient to violate the provisions of Section 11-2.

No waste, wastewater, or other substance may be discharged into public sewers which has a pH lower than 6.0 or higher than 9.5, or any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel at the wastewater facilities.

All waste, wastewater, or other substances containing phenols, hydrogen sulfide, or other taste-and-odor producing substances, shall conform to concentration limits established by the approving authority. After treatment of the composite wastewater, concentration limits may not exceed the requirements established by state, federal, or other agencies with jurisdiction over discharges to receiving waters.

Section 11-4. Heavy Metals and Toxic Materials.

No discharges may contain concentrations of heavy metals greater than amounts specified in this Section.

The maximum allowable concentrations of heavy metals stated in terms of milligrams per liter (mg/l), determined on the basis of individual sampling in accordance with "Standard Methods" are:

Arsenic	0.05 mg/l	Barium	5.00 mg/l
Boron	1.00 mg/l	Cadmium	0.05 mg/l
Chromium (Total)	0.50 mg/l	Copper	0.10 mg/l
Lead	0.50 mg/l	Manganese	1.00 mg/l
Mercury	0.005 mg/l	Nickel	1.00 mg/l
Selenium	0.05 mg/l	Silver	0.06 mg/l
Zinc	1.00 mg/l		

No other heavy metals or toxic materials may be discharged into public sewers without a permit from the approving authority specifying conditions of pretreatment, concentrations, volumes, and other applicable provisions.

Prohibited heavy metals and toxic materials include but are not limited to:

Antimony	Bismuth	Molybdenum	Rhenium
Tellurium	Fungicides	Beryllium	Cobalt
Uranyl ion	Strontium	Herbicides	Pesticides

Section 11-5. Impairment of Facilities.

No person may discharge into public sewers any substances capable of causing:

- a. Obstruction to the flow in sewers;
- b. Interference with the operation of treatment facilities; or
- c. Excessive loading of treatment facilities.

Discharges prohibited by Section 11-5 include, but are not limited to materials which exert or cause concentrations of:

- a. Inert suspended solids greater than 250 mg/l including but not limited to;
 - Fuller's earth
 - Lime slurries; and
 - Lime residues.
- b. Dissolved solids greater than 500 mg/l including but not limited to:
 - Sodium Chloride; and
 - Sodium Sulfate.

- c. Excessive Discoloration including but not limited to:
Dye wastes; and
Vegetable tanning solutions.
- d. BOD, COD or chlorine demand in excess of normal plant capacity.

No person may discharge into public sewers any substance that may:

- a. Deposit grease or oil in the sewer lines in such a manner as to clog the sewers;
- b. Overload skimming and grease handling equipment;
- c. Pass to the receiving waters without being effectively treated by normal wastewater treatment processes due to the nonamenability of the substance to bacterial action; or
- d. Deleteriously affect the treatment process due to excessive quantities.

No person may discharge any substance into public sewers which:

- a. Is not amendable to treatment or reduction by the processes and facilities employed; or
- b. Is amendable to treatment only to such a degree that the treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

The approving authority shall regulate the flow and concentration of slugs when they may:

- a. Impair the treatment process;
- b. Cause damage to collection facilities;
- c. Incur treatment costs exceeding those for normal wastewater; or
- d. Render the waste unfit for stream disposal or industrial use.

No person may discharge into public sewers solid or viscous substances which may violate this Section if present in sufficient quantity or size including but not limited to:

- | | | |
|-------------|---------------------|---|
| a. Ashes | i. Rags | q. Hair and fleshing |
| b. Cinders | j. Feathers | r. Entrails |
| c. Sand | k. Tar | s. Paper products, either whole or ground by garbage grinders |
| d. Mud | l. Plastics | t. Slops |
| e. Straw | m. Wood | u. Chemical residues |
| f. Metal | n. Unground garbage | v. Paint residues |
| g. Shavings | o. Whole blood | w. Bulk solids. |
| h. Glass | p. Paunch manure | |

Article 2. Industrial Waste; Compliance

Section 11-6. Compliance with existing Authority.

Unless exception is granted by the Approving Authority, the public sanitary sewer system shall be used by all people discharging:

- a. wastewater
- b. industrial waste
- c. polluted liquids.

Unless authorized by the Oklahoma State Department of Health, no person may deposit or discharge any waste included in subsection a) of this section on public or private property into or adjacent to any:

- a. natural outlet
- b. watercourse
- c. storm sewer
- d. other area within the jurisdiction of the City.

The Approving Authority shall verify prior to discharge that wastes authorized to be discharged will receive suitable treatment within the provisions of laws, regulations, ordinances, rules and orders of federal, state and local governments.

Section 11-7. Approving Authority Review and Approval.

If pretreatment or control is required, the approving authority shall review and approve design and installation of equipment and processes.

The design and installation of equipment and processes must conform to all applicable statutes, codes, ordinances and other laws.

Any person responsible for discharges requiring pretreatment, flow-equalizing, or other facilities shall provide and maintain the facilities in effective operating condition at his own expense.

Section 11-8. Sampling and Testing.

Sampling shall be conducted according customarily accepted methods, reflect the effect of constituents upon the sewage works and determining the existence of hazards to life, limb and property, and shall be conducted in accordance with the standard methods of sampling effluent and wastewater which are employed by the Oklahoma State Department of Health.

Examination and analyses of the characteristics of waters and wastes required by this ordinance shall be:

- a. conducted in accordance with the latest edition of Oklahoma State Health Department standards.
- b. determined from suitable samples taken at the control manhole provided or other control point authorized by the Approving Authority.

BOD and suspended solids shall be determined from composite sampling, except to detect unauthorized discharges.

The City may select an independent firm or laboratory to determine flow, B.O.D., and suspended solids.

The City is entitled to select the time of sampling at its sole discretion so long as at least annual samples are taken.

Section 11-9. Industrial Charge.

The following user charge formula shall hereafter be applied to any industrial user connecting to the Sanitary Sewer System.

IC equal 0.07 plus 0.04 (BOD) plus 0.02 (SS)
IC equal Industrial charge, dollars per 1000 gallons, billed monthly
BOD equal Five day @ 20EC for industrial waste, composite sampling, ppm
SS equal suspended solids of industrial waste, composite sampling, ppm
V equal flow in 1000 gallon.

User charge is as follows:

$$\text{O \& M costs/1000 gal.} = \frac{\text{Annual O \& M costs}}{1.8 \times 6 \text{ winter mo. water use } *(\text{in } 1000\text{'s})}$$

$$\text{Charge/1000 gal.} = A \times \left(\frac{1.8 \times 6 \text{ winter month's water use}}{\text{Annual water use}} \right)$$

*Assumes discharge in winter months is 0.8 x 6 mo. water use and assumes discharge in summer months is 1.25 x winter discharges.

Article 3. Permit; Enforcement; Penalty

Section 11-10. Conditions or Permits.

The City may grant a permit to discharge to persons meeting all requirements of the savings clause provided that the person:

- a. submit an application within 180 days after the effective date of this ordinance on forms supplied by the approving authority;
- b. secure approval by the approving authority of plans and specifications for pretreatment facilities when required; and
- c. has complied with all requirements for agreements or arrangements including, but not limited to, provisions for
 - a. payment of charges
 - b. installation and operation of pretreatment facilities; and
 - c. sampling and analysis to determine quantity and strength; and
- d. provides a sampling point subject to the provisions of this ordinance and approval of the approving authority.

A person applying for a new discharge shall

- a. meet all conditions of this section; and
- b. secure a permit prior to discharging any waste.

Section 11-11. Power to Enter Property.

The superintendent and other duly authorized employees of the City bearing proper credentials and identification are entitled to enter any public or private property at any reasonable time for the purpose of enforcing this Ordinance.

Anyone acting under this authority shall observe the establishment's rules and regulation concerning safety, internal security and fire protection.

Section 11-12. Authority to Disconnect Service.

The City may terminate water and wastewater disposal service and disconnect an industrial customer from the system when:

- a. Acids or chemicals damaging to sewer lines or treatment process are released to the sewer causing rapid deterioration of these structures or interfering with proper conveyance and treatment of wastewater;
- b. A governmental agency informs the City that the effluent from the wastewater treatment plant is no longer of a quality permitted for discharge to a watercourse, and it is found that the customer is delivering wastewater to the City's system that cannot be sufficiently treated or requires treatment that is not provided by the City as normal domestic treatment;
- c. the industrial customer:
 - discharge industrial waste or wastewater that is in violation of the permit issued by the approving authority;
 - discharges wastewater at an uncontrolled, variable rate in sufficient quantity to cause an imbalance in the wastewater treatment system;
 - fails to pay monthly bills for water and sanitary sewer services when due; or
 - repeats a discharge of prohibited wastes to public sewers.

Sections 11-13 through 11-22. (Reserved for future use.)

Article 4. Penalty

Section 11-23. Penalty.

Any person, firm or corporation who shall violate any provision of this Chapter shall be guilty of any offense and, upon conviction thereof, shall be punished by fine and costs as provided for in Section 1-40 of this Code, unless a separate and distinct penalty is otherwise specifically set forth in this Chapter. Each day's continuation of any such violation shall constitute a separate offense.