



GENERAL REQUIREMENT

**TO IMPLEMENT POLLUTION MANAGEMENT PRACTICES AND
TO INSTALL AND MAINTAIN WASTEWATER TREATMENT EQUIPMENT**

BREWERY AND WINE MAKING FACILITIES

Wastewater from breweries and wine making operations can contain high levels of organic matter, high temperatures and extremes in pH levels. These discharges can disrupt the collection system and adversely impact wastewater treatment.

Springfield Municipal Code sections 4.014 – 4.015, 4.054 – 4.055, and 4.057 authorize the City to require any industrial user to:

- (a) Install and maintain at its expense a suitable control access hole to facilitate observation, sampling, and measurement of wastewater being discharged;
- (b) Allow authorized representatives of the City access at all reasonable times to all parts of the premises where wastewater related facilities are located or in which records required by the Code are kept;
- (c) Install wastewater pretreatment facilities or make plans or process modifications deemed necessary by the City Manager to meet the requirements of section 4.042 of the Municipal Code. These facilities shall be constructed, installed, operated, and maintained at the expense of the industrial user. The industrial user shall maintain records indicating routine maintenance check dates, cleaning and waste removal dates, and means of disposal of accumulated wastes.

In accordance with the above authority, the City is issuing the following general requirement:

is required to implement management practices for BREWERY AND WINE MAKING FACILITIES as described herein.

Any discharges to the sanitary sewer must meet the requirements of the Industrial Pretreatment Program and the Springfield Municipal Code. The Springfield City Code 4.006 (2,a,ii) states any wastewater having a pH less than 5.5 or greater than 12.0 or having corrosive property is prohibited from being discharged to the sanitary sewer. The City of Springfield is the administrative authority for Springfield facilities, which discharge to the Eugene/Springfield Regional Water Pollution Control Facility. The City Code prohibits the discharge of solids or viscous substances, which either alone or in combination with other pollutants, may cause obstruction to the flow in a sewer or other interference with the operation of the City's wastewater system (Springfield City Code 4.006 (2,a,iii)).

The City may periodically inspect the above business to verify that equipment is installed and operating properly, and to verify compliance with Springfield Municipal Code. Failure to implement required Pollution Management Practices may result in enforcement action by the City.

Matt Stouder, Environmental Services Division Director

Date

POLLUTION MANAGEMENT PRACTICES FOR BREWERIES AND WINE MAKERS

POLLUTION PREVENTION

Pollution prevention means looking at every action to determine how fewer and less harmful substances can be used, how fewer waste products can be created, how substances can be reused or recycled and what disposal options are available to keep these substances out of the sewer system, landfills and the air. Many business practices have the potential to pollute air, water and soil. The information provided in this document focuses on ways to prevent water pollution by conscious reduction, reuse or recycling of materials, chemicals and hazardous substances.

REQUIRED POLLUTION MANAGEMENT PRACTICES

The following list contains **Pollution Management Practices to be used by brewery and wine making facilities.**

Comply with the City of Springfield Discharge Limitation for pH: The Springfield Municipal Code 4.006 (2,a,ii) states any wastewater having a pH less than 5.5 or greater than 12.0 or having corrosive property is prohibited from being discharged to the sanitary sewer. A common approach to avoiding this violation is the installation of a holding tank in order to adjust the pH of process wastewaters before discharging. The discharge of wastewater having a pH less than 5.5 or greater than 12.0 constitutes a violation of the City of Springfield General Discharge Prohibitions as well as this General Requirement.

Comply with the City of Springfield prohibition of the discharge of solid or viscous substances: The Springfield Municipal Code 4.006 (2,a,iii) prohibits the discharge of solids or viscous substances, which either alone or in combination with other pollutants, may cause obstruction to the flow in a sewer or other interference with the operation of the City's wastewater system. The discharge of the above described materials constitutes a violation of the City of Springfield General Discharge Prohibitions as well as this General Requirement.

Recordkeeping: The facility shall maintain records indicating routine maintenance, cleaning, waste removal and means of disposal of accumulated wastes. All records shall be maintained by the facility for a minimum of three years.

DEFINITIONS

Industrial User: Any person, including a mobile waste hauler, who discharges wastewater from a source other than a single or multiple dwelling unit directly connected to the city wastewater system.

Sanitary Sewers: Since all sewage treatment facilities and wastewater collection systems have limitations care must be taken when discharging commercial wastes. The Eugene/Springfield Regional Water Pollution Control Facility is designed primarily to handle domestic sanitary sewage. Bacteria provide treatment by breaking down organic matter in water. Treatment facilities can't treat many materials and chemicals, so the substances may pass untouched into the environment. This threatens fish, wildlife and vegetation as well as people living downstream, using polluted water sources for drinking or recreation. Some substances can destroy the bacteria in the treatment process, leaving the treatment facility ineffective. This endangers the environment and it is a tremendous expense to community ratepayers.

Storm Sewers: Storm drains flow directly into rivers, streams and waterways without passing through a treatment plant. Anything in the storm drain, such as organic debris from grapes and grains or vehicle oil, can contribute to water pollution. Illegal dumping can be discouraged by stenciling storm drains. If your business wishes to participate in the City of Springfield Clean Water Business Program please contact the Water Resources group at 541-726-3694.

Pollution Management Practices: Schedules of activities, requirements or prohibitions of practices, operating procedures, maintenance procedures, and other management procedures used to reduce the amount of pollutants entering the city wastewater system.

OTHER INFORMATION

Chemical Use: Be conscious of chemical use. Even the least toxic chemicals can be harmful if used incorrectly. Chemicals can be harmful to employees and customers as well as the environment. Don't be careless about any aspect of chemical use, from purchase to disposal. Reduce chemical use whenever possible. Businesses can save money by adopting procedures that require less chemical use. Many manufactures are creating new products with less environmental impact. Investigate the benefits of substitution of products. Avoid using free product samples unless you are certain what is in them.

Chemical Storage: Store chemicals and liquids sensibly so they can be easily found and identified. Follow manufacturers' directions for all product storage. Consider requirements for temperature, air circulation and length of storage time. Make sure products are sealed. Buy smaller quantities more frequently. Avoid purchasing products that won't be used. Provide secondary containment for all liquids and store away from floor drains connected to the sanitary sewer or storm drains. Place original containers inside a container capable of capturing all the contents in case of a leak. Place large containers on spill pallets.

Spill Prevention and Control: Use chemicals only in designated areas where spills can be contained. Stop any spill at its source. Store chemicals near the area where they will be used. When cleaning up spills remove liquid with rags and sweep the floor with a dry absorbent. Dispose of all spilled material and absorbent material properly.

Good House Keeping: Use good housekeeping practices. Sweep, vacuum and mop floors rather than hosing them down and don't leave sweepings outside where rain can wash them into drains. Do not send washwater down storm drains. Clean up spills immediately. Sweep parking lots in the fall before the rains come. Inspect dumpsters periodically. Repair or replace leaky dumpsters. Cover all waste containers to prevent stormwater from entering the container. Do not clean equipment outdoors or in areas where water may flow to a storm drain, gutter or street. If outdoor cleaning is required, collect washwater and dispose in indoor sinks or drains for discharge to the sanitary sewer

Train Employees: All employees should receive training about the products in use, storage requirements, spill procedures and potential hazards. Designate a person responsible for Best Management Practices

SUGGESTED POLLUTION MANAGEMENT PRACTICES

The following information focuses on Suggested Pollution Management Practices for breweries.

BACKGROUND AND INFORMATION

Breweries generate high volumes of waste. At various stages of the process, brewing uses grains, yeast and other ingredients that ultimately require disposal. Water for heat exchange and washing also becomes a waste product. Reducing the amount of waste sent to the sewage treatment plant can benefit breweries as well as residents in the community. Wastewater from breweries contains high levels of organic material. In addition, breweries generally discharge wastewater with an elevated temperature. Wastewater with an elevated temperature can interfere with collection system efficiency and cause odor problems. Extremes in pH, often found in brewery discharges, can damage the collection system.

SUGGESTED POLLUTION MANAGEMENT PRACTICES FOR BREWERIES

- Brewing by-products can help local farmers obtain inexpensive fertilizer and animal feed. Material can be diverted at various points in the process to keep organic matter out of sewers.
- Spent grain, hops and trub from the brew kettle can be used in compost or added to animal feed. Beer/yeast mixtures from the fermentation tank can be added to spent grains and trub and disposed of accordingly.
- Leave head space in each brew tank to prevent overflowing.
- Use a collection tank to adjust the pH of the process wastewater before discharging.
- Reduce single pass cooling and replace with a recirculation system.
- Reuse hot water from the heat exchanger. After cold water absorbs heat from the wort passing through the heat exchanger, breweries are left with gallons of hot water. Instead of discharging this hot water to the sewers, water can be directed back to the hot liquor tank for brewing the new batch.
- Washwater needs to be treated before discharging it to the sewer system. A well designed cleaning station can reduce the volume of water requiring treatment following the cleaning process.
- Reduce heat loss by fully insulating the water heater. Hot liquor tanks are normally well insulated, but check the insulation regularly to make sure you are not losing heat.
- Communicate with staff from The Eugene/Springfield Regional Water Pollution Control Facility about applicable regulations.

OTHER RESOURCES

Oregon Association of Clean Water Agencies (OR-ACWA): www.oracwa.org

Pacific Northwest Pollution Prevention Resource Center (PPRC): www.pprc.org

Note: The Springfield Municipal Code 4.006 (2,a,ii) states any wastewater having a pH less than 5.5 or greater than 12.0 or having corrosive property is prohibited from being discharged to the sanitary sewer. Discharging wastewater outside this range is a violation of the Springfield Municipal Code.