

REPORT SPILLS OR DUMPING BY CALLING THE HOTLINE

Call the Spill Response Hotline—**503-823-7180** 24 hours a day to report spills, slicks, and discharges.

Please provide:

- Name and contact information
- Date and time of spill
- Spill location
- Description of material spilled and suspected source
- Current weather condition

Photos, if available, are very helpful. Send photos to: **BESDutyOfficer@portlandoregon.gov**

For more information on reporting spills, please see www.portlandoregon.gov/bes/ReportPollution

Permits

- **Building permits** – All businesses going through development, re-development or tenant improvements will require a permit.
- **Wastewater permits** – Discharging wastewater from the production of fermented beverages requires a City-issued permit. The type of permit depends upon the volume of process wastewater discharged and the compliance history of the business. Permit types include:
 - ✓ **Alternative Discharge Control Mechanism (ADCM)** is a best management plan-based permit that requires businesses to collect grab samples of discrete batches of wastewater and submit annual certification reports.
 - ✓ **Industrial Wastewater Discharge Permit** is a “traditional” environmental permit requiring continuous pH monitoring and monthly regulatory reporting.
- **Stormwater permits** – If the primary activity of a business is the manufacture of beverages and it discharges stormwater to surface waters, it is required to obtain a **1200-Z general industrial stormwater discharge permit** or a **No Exposure Certification (NEC)** for exclusion from permitting.



FOR MORE INFORMATION:

www.portlandoregon.gov/bes/craftbrewing

PROJECT CONTACT:

Environmental Services Water Pollution Control Lab
503-823-5600

City of Portland Environmental Services is committed to providing meaningful access. For accommodations, modifications, translation, interpretation or other services, please contact at 503-823-5600, or use City TTY 503-823-6868, or Oregon Relay Service 711.

Traducción o interpretación	Chuyển Ngữ hoặc Phiên Dịch	翻译或传译	Письменный или устный перевод
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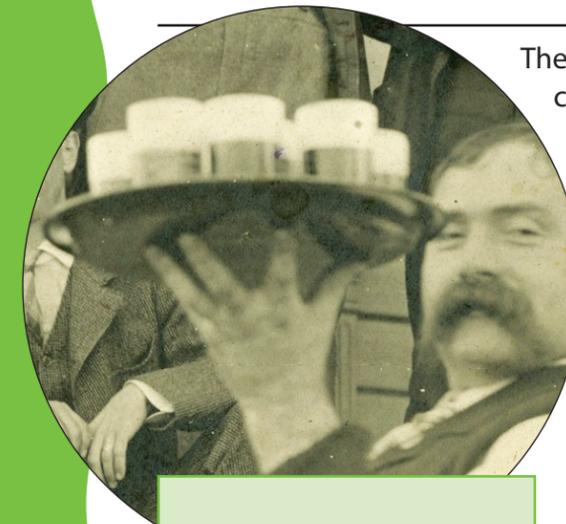
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working for clean rivers

Environmental Services Regulatory Requirements

Craft Fermented Beverage Industry

Environmental Services works with Portland residents and businesses to protect water quality, public health, and the environment through wastewater collection and treatment, sewer construction and maintenance, stormwater management, and stream and watershed restoration.



The federal **Clean Water Act** requires cities to regulate industries that discharge wastewater or stormwater to the city's sewer systems. As the city's sewer and stormwater services provider, Environmental Services sets the pollutant limits and regulates industries in order to protect the city's system and our watersheds. Businesses and industries that use fermentation and distillation processes to produce beverages are subject to environmental regulatory requirements.

WHO SHOULD READ THIS?

Businesses conducting fermentation or distillation to produce beverages. These businesses include (but are not limited to):

- Breweries
- Distilleries
- Wineries
- Cideries
- Meaderies
- Kombucharies

Inside this fact sheet are guidelines regarding Environmental Services regulatory requirements for business owners and individuals interested in the craft fermented beverage industry. This document is an overview, **and these guidelines are subject to change.** For the latest information, please visit Environmental Services website at www.portlandoregon.gov/bes/CraftBrewing or contact the Environmental Services Water Pollution Control Laboratory at 503-823-5600.



Historic photo from City of Portland Archives A2004-002-6719.

NOVEMBER 2017

Environmental Services Regulatory Requirements for Craft Fermented Beverage Industry

Environmental Services Rules and Regulations

- **Monitoring Access Structure** – Since Craft Fermented Beverage Manufacturers discharge pollutants of concern, these businesses are required to install and maintain a monitoring access structure (MAS) per City rule ENB 4.35. The purpose of the MAS is to provide a location for the City to take representative wastewater samples to determine compliance with City discharge standards and extra strength charges. The MAS is required to be installed in a location that captures all waste streams discharged by the business. Under certain conditions, Craft Fermented Beverage Manufacturers may request a variance which allows them to install a MAS in a location that only captures the pollutants of concern.
- **Grease Removal Device** – If the beverage manufacturer is also preparing and/or serving food, then a grease removal device must be installed to capture the water from grease-bearing drains. The device must be maintained according to Oregon Plumbing Specialty Code and City rules.
- **Extra Strength Sewer Charges** – Wastewater with concentrated pollutants such as BOD and solids is considered “extra-strength” and cost more for the City to treat than wastewater from a residence.
- **Secondary Containment** – All chemical, wastewater, or product storage areas must be provided with secondary containment to protect both sanitary and storm sewer systems. More information on outdoor containment requirements can be found in the Source Control Manual online at www.portlandoregon.gov/bes/SCM. For indoor storage, depending on the stored material, the containment area may not be allowed to have drainage installed within the containment area. Special Circumstances can be heard for either indoor or outdoor storage situations that cannot meet these requirements outright but can meet the intent.
- **Sub-meter Program** – Most businesses are charged for sewer use based on their water consumption. This program may financially benefit large scale beverage producers by measuring the site’s actual discharge through metering. In order to participate in the sub-meter program, businesses must submit an application, purchase and install a City approved sub-meter in a City approved location. Any maintenance associated with sub-meters is the sole responsibility of the customer.
- **Solid waste and recycling** must meet requirements of Environmental Services Source Control Manual available at www.portlandoregon.gov/bes/SCM.
- **Stormwater Management** – Businesses may need to meet **on-site stormwater management requirements** per the Stormwater Management Manual (www.portlandoregon.gov/bes/SWMM). Environmental Services Maintenance Inspection Program oversees stormwater facility maintenance.

City of Portland Administrative Rules

All city code and administrative rules referenced here can be found at www.portlandoregon.gov/citycode/28148 and www.portlandoregon.gov/citycode/28044.

Businesses **should not** wash equipment or containers nor dispose of wastes to a catch basin because it may drain to a river or stream. All equipment washing should be conducted inside.

Pollutants of Concern

pH

The City’s pH range for discharges to the sanitary sewer is 5.0 to 11.5 standard units (SU). Wastewater with pH values outside of that range can corrode pipes and are prohibited from being discharged to the sanitary sewer system.

Low pH substances (acids) include:

- Vinegar (Acetic Acid)
- Many Sanitizing Chemicals
- Finished Beverage

High pH substances (alkalines) include:

- Cleaners/Detergents
- Bleach (Sodium Hypochlorite)
- Caustic (Sodium Hydroxide)

MITIGATION STRATEGIES:

Prior to discharge to the sewer system, wastewater must be within discharge range of 5.0 to 11.5 SU.

- Use a tank or similar vessel to capture both acidic and alkaline waste streams.
- Once the wastes are well mixed, test the resulting pH with a meter. If it is within the City’s allowable pH range of 5.0 and 11.5 SU, then it may be discharged.
- If the pH is outside the allowable range, then add an alkaline chemical to increase pH or an acidic chemical to reduce pH to reach the allowable range. Mix wastewater well before testing pH.
- Maintain a log documenting each batch of wastewater discharged to the City. The log should include date, discharge volume, pH at time of discharge, and pH meter calibration.

Solids

While the City’s wastewater treatment plant is designed to treat solids, highly concentrated solids can settle in the sewer pipes and obstruct flow. Discharges that obstruct a sewer line are prohibited.

MITIGATION STRATEGIES

Concentrated solids such as spent grains and yeast can be collected for beneficial re-uses. Below are a few examples of how spent grains and yeast can be repurposed:

- **Agricultural:** Spent grains and yeast can be used by local farmers and livestock owners for on-site composting and feed uses.
- **Baking:** Spent grains can be used by local baking businesses for breads, cookies, and even dog biscuits.
- **Composting:** Composted spent grains and yeast can be used to fertilize fields, community gardens, and urban greenhouses.
- **Supplemental Energy:** Fuel-to-energy processes convert spent grain into biogas that can be used to generate energy.

Find more information regarding sustainable brewing practices and beneficial re-uses at:

- **Oregon Brewers Guild**
oregoncraftbeer.org
- **Brewers Association**
www.brewersassociation.org

Biochemical Oxygen Demand

Also known as BOD, this is a measurement of the amount of oxygen that bacteria at the wastewater treatment plant need to biodegrade pollutants. High BOD levels can result from the discharge of:

- Sugars
- Alcohol
- Vinegar

MITIGATION STRATEGIES

The Columbia Boulevard Wastewater Treatment Plant is designed to remove these pollutants. However, the BOD from craft fermented beverage facilities is much higher than typical wastewater and costs more to treat. Businesses creating craft fermented beverages pay an extra-strength charge to cover the increased treatment costs.

Discharging large volumes of concentrated BOD material (product or raw materials) could have a negative effect on the treatment plant. Please call Pollution Prevention Services at 503-823-5600 for guidance on how to manage large volumes.