



Small Distillers Environmental Permit Guide

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Kentucky has seen vast growth in the bourbon business including small distilleries or “craft distilleries.” Such facilities perform industrial operations on a very small to small scale. Despite the small scale, several environmental regulations may apply depending upon the activities performed and the quantities of materials processed and stored at the facility. This presents compliance challenges for smaller facilities, which may not have trained environmental professional staff. Craft distillers may be surprised at the number of applicable environmental requirements. This guide addresses the most common requirements and associated thresholds or triggers, which may typically apply.

Hazardous Materials – The Emergency Planning and Community Right-to-Know Act (EPCRA) applies to all types of businesses which handle hazardous materials. Distilled spirits and distilled spirits mixtures are typically hazardous materials because they are flammable and are considered health hazards until labeled as beverage alcohol. Refer to [29 CFR 1910.1200\(b\)\(5\)\(iv\) and \(6\)\(vi\)](#) for the exemptions specific to distilled spirits. Distilleries commonly have fuels and corrosives on site that are also considered hazardous materials. Regulations implementing EPCRA are codified in Title 40 of the Code of Federal Regulations, parts 350 to 372. Hazardous chemicals are defined in the act as any substance requiring hazard communication under OSHA. If you are required to have a safety data sheet (SDS) for the substance, it is an EPCRA hazardous chemical unless it is exempted in the act. The first trigger for EPCRA that a small distillery is likely to encounter is 10,000 pounds of distilled spirits or hazardous distilled spirits mixtures onsite. This is about 1,300 gallons. Other materials such cleaning solutions, fuels and batteries may also require reporting if present above reporting thresholds. Sulfuric acid has a 500-pound EPCRA threshold for notification and annual reporting (EPCRA Sections 311 and 312) and a 1,000-pound threshold for emergency planning (EPCRA Section 302). It only takes a few battery-powered fork lifts or other industrial batteries to trigger this requirement. [My article on EHS Facility Response Plans](#) has guidance on estimating quantities of sulfuric acid in batteries.

There are several additional requirements for storing hazardous materials, which may apply. The Kentucky Fire Marshal’s office requires [permits for storage of flammable, combustible, and hazardous materials](#) (distilled spirits/distilled spirits mixtures and fuels). Additionally, some publicly owned treatment works (POTWs) and local ordinances have requirements for hazardous materials. In Louisville, a [Fire Department Hazardous Materials Permit](#) may be needed in addition to a [Hazardous Materials Spill Prevention and Control Plan \(HMPC\)](#). If your facility has the capacity to store over 1,320 gallons of oil in containers 55-gallons or larger, then you may also need a Spill Prevention Control and Countermeasures Plan (Refer to [40 CFR 112](#) and consider all materials meeting the broad definition of oil).

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In Kentucky, use and storage of hazardous materials and other potential pollutants may trigger the need for a Groundwater Protection Plan (GPP). The Kentucky GPP regulation is published at 401 KAR 5:037. For more information checkout this link and available guidance for sample GPPs in Kentucky: <http://water.ky.gov/groundwater/Pages/GroundwaterProtectionPlans.aspx>. Other states may have similar hazardous material and groundwater protection regulations, so investigation of site-specific requirements is recommended.

Air Permitting – Emissions from process equipment must be evaluated to determine if a facility is required to obtain an air permit from, or register with, the air permitting authority. If you burn liquid fuels in a boiler or stationary combustion engine or if you have natural gas-fired combustion sources which exceed a combined heat input capacity of 10 Million BTUs/hour you may need to register. In addition to combustion sources, other common distillery operations which may require air permitting are grain processing, fermentation, distillation, bulk distillate storage, spirits blending/bottling, and aging. Aging emissions are commonly estimated as 6.9 pounds ethanol per barrel per year. Aging of 2,900 barrels or more would trigger thresholds listed in regulation [401 KAR 52:070](#). Kentucky Division for Air Quality (KY DAQ), which has permitting jurisdiction for most of Kentucky, has a summary of various permit thresholds available at this link: <http://air.ky.gov/SiteCollectionDocuments/KentuckyPermitting.pdf>. Inside Jefferson County, Kentucky, the thresholds for air permitting are lower and the regulating agency is local, the Louisville-Jefferson County Air Pollution Control District. Refer to [Air Pollution Control District Regulation 2.02](#) for permit thresholds. In addition to state or local regulations, common distillery combustion sources such as boilers, fire pump engines, and stationary back-up/emergency generators are subject to Federal air regulations under National Emission Standards for Hazardous Air Pollutants (NESHAPs) and/or New Source Performance Standards (NSPS). Here is a link to EPA's [area source boiler regulation summary](#). Guidance for stationary engines is available from EPA at this link: <https://www.epa.gov/stationary-engines/guidance-and-tools-implementing-stationary-engine-requirements>.

Stormwater and Wastewater Permitting – All wastewater discharges to a stream or natural outlet are regulated <http://water.ky.gov/permitting/pages/wastewaterdischarge.aspx>. This includes non-contact cooling water and any process wastewaters. If wastewater from your facility flows to a POTW, then an industrial pretreatment authorization is likely to be required. If stormwater from your facility falls on or runs over an area where an industrial activity occurs, you likely need an operating stormwater permit. Many distilleries qualify for coverage under [General KPDES permit KYR00](#). Triggering activities include outdoor fuel transfers, uncovered grain loading/unloading/processing, and uncovered stillage loading/unloading.

Water Use - Small distillers can use significant amounts of water. Withdrawal from a stream, spring, or well at 10,000 gallons per day or more requires a [permit from the Kentucky Division of Water](#).

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Byproducts and Waste - Stillage, also called spent grains, is often used as feed for cattle. The material typically has very high oxygen demand and may require management as a waste if not beneficially reused. Spent grains may be considered a special waste by the Division of Waste Management. Here is [a link to a fact sheet about managing distiller's grains](#). Small distillers are also subject to state and federal waste regulations for waste items such as used oil, spent lamps, batteries, hazardous paints, and hazardous cleaning products.

The Division of Compliance Assistance offers free help to small businesses and offers a compliance guide and list of typical permits on [their website](#). Their [Resource document library](#) has a number of useful fact sheets for wastes including several related to distillers' grains.

SMG works with several distilleries (large and small) and assists them with a broad range of environmental permitting and compliance needs. If you have questions about your requirements, please contact Patty Mason at 501-587-6482 extension 211 or PattyM@SmithManage.com.

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