

BREWERY. An alcohol beverage production facility (ABPF) or portion thereof, including accessory uses, in which beer or other malt liquors are produced by fermentation. ~~For~~ In spirit production, beer and wash are synonymous as precursors to distillation.

CASK. A closed vessel of 185 gallons (700 L) or less capacity, ~~used primarily for storing Class I liquids,~~ constructed of wooden staves and heads, held together by metal hoops, not equipped with provisions for emergency venting, and not intended for fixed installation. In alcohol beverage production facilities (ABPFs), “barrel” is a subset of, and often used interchangeably with “cask”. These vessels are used primarily for storing ethanol mixtures.

CLASS 1 LIQUIDS. ~~Used in Chapter 38 to identify ethanol mixtures that are Class IB or Class IC flammable liquids.~~

CONTAINER. In an alcohol beverage production facility (APBF), any closed vessel of 119 gallons (450 L) or less capacity used for transporting or storing Class 1 liquids, not intended for fixed installation and not constructed of wood, but possibly equipped with an overpressure-relieving mechanism in accordance with FM Global Approved Standard for Plastic Plugs for Steel Drums, Class Number 6083, or equivalent.

DISTILLATION. In an alcohol beverage production facility (APBF), the concentration of ethanol ~~The separation and concentration of the constituents of an *ethanol mixture* by slowly raising the temperature of an *ethanol mixture* the mixture through the boiling points of its constituents, except water, then collecting and condensing the constituent vapors separately from the remaining water mixture.~~

DISTILLERY (also DISTILLED SPIRITS PLANT – BEVERAGE). An alcohol beverage production facility (ABPF) licensed by the TTB to produce, bottle, rectify, process or store beverage spirits including areas for fermentation, distillation, storage, blending, packaging, and accessory uses. Other types of distilleries licensed by the TTB include Distilled Spirits Plant – Experimental, Distilled Spirits Plant – Industrial and Distilled Spirits Plant – Industrial/Beverage.

~~**DISTILLED SPIRITS PLANT – EXPERIMENTAL.** An experimental distilled spirits plant established for specific and limited periods of time solely for experimentation in, or development of, industrial spirits or sources of materials used to produce spirits, or processes for producing or refining spirits.~~

~~**DISTILLED SPIRITS PLANT – INDUSTRIAL.** A distilled spirits plant established to manufacture articles, or produce, bottle or package, denature or warehouse spirits for industrial use. These spirits are not intended for beverage use. Distilled spirits – Vinegar Plants also fall into this category.~~

~~**DISTILLED SPIRITS PLANT – INDUSTRIAL / BEVERAGE.** A distilled spirits plant that manufactures beverage and industrial spirits on the same premises.~~

ETHANOL MIXTURE. Liquid mixture comprised of ethanol and materials with hazards not regulated by the Denver Building and Fire Code – ~~namely~~ primarily water.

HAZMAT (Hazardous Materials). Materials with hazards harmful physical and health properties regulated by the Denver Building and Fire Code.

LOWER FLAMMABLE LIMIT (LFL) also [LOWER EXPLOSIVE LIMIT (LEL)]. The atmospheric volumetric concentration of a flammable vapor in air at which propagation of flame will occur in the presence of an ignition source. The LFL at sea level for ethanol vapor is 3.3 percent.

MASH. Typically During fermentation, the mixture of ground or cracked grains, ~~mashed fruit, or and~~ other crushed edible organic material steeped in hot water to release carbohydrates and reduce ~~them~~ it to sugars. The term is used inconsistently (often overlapping with wort) for the various solutions in process up to the point where fermentation is complete.

MINIMUM EXPLOSIVE CONCENTRATION (MEC). The lowest mass to volume concentration in air of combustible dust that will propagate a flame (~~sometimes referred to as LFL~~). The MEC for grain dust is 0.055 oz/ft³ (55 g/m³).

NORMALLY CLOSED. A system or vessel in an alcohol beverage production facility (ABPF) used ~~in the~~ for storage, production, dispensing, blending, bottling, or handling of Class 1 Liquids ~~that where~~, for ~~up to~~ less than 50 percent of the time it is in operation, its contents are not exposed to atmosphere and vulnerable to evaporation. Processes involving ~~vessels such as~~ casks opened only for filling, draining or sampling, distillation where all vapors are condensed below their flash points prior to collection, uncovered vessels of 5.3 gallon (20 L) capacity or less used to collect distillate below its flash point, and covered blending or maceration vessels are typically considered normally closed.

NORMALLY OPEN. A system or vessel in an alcohol beverage production facility (ABPF) used ~~in the~~ for storage, production, dispensing, blending, bottling, or handling of Class 1 Liquids ~~that where~~, for 50 percent or more of the time it is in operation, its contents are continuously exposed to atmosphere and vulnerable to evaporation, or where a Class 1 Liquid at or above its flash point is exposed to atmosphere at any time ~~during transfer, dispensing, or release~~. Continuous blending or maceration in uncovered vessels, open draining of Class 1 Liquids above their flash points, and the act of “bleeding” heads (the initial vapors generated during distillation) or tails (the last vapors generated during distillation) to atmosphere are typically considered normally open.

PORTABLE TANK. A tank that is readily capable of being relocated within ~~the~~ a facility, not permanently attached to immovable structure or ground, and not constructed of wood.

PROCESS DESCRIPTION. In an alcohol beverage production facility (APBF), an operational description such as a flow chart of the sequence of events required to convert raw materials from the state in which they enter the APBF through each development point until the finished products are derived. The process description identifies all input and output materials and includes quantities, concentrations, temperatures, pressures, types of equipment, systems, etc. at each development point using code-based terminology; e.g., “37 gallons of 55% ABV at standard temperature and pressure (STP)” vs. “all the high wines collected.” All systems and processes utilized to produce all intermediate and finished products are required to be included in the process description.

PROCESSING VESSEL. In an alcohol beverage production facility (APBF), an open or closed vessel other than stills used in the manufacture of ethanol mixtures. Processing vessels include fermentation tanks, mash tuns, blending tanks, etc., but do not include long-term storage vessels such as vats or casks.

STILL. In an alcohol beverage production facility (APBF), any appliance in which distillation of an ethanol mixture is performed. ~~For the purposes of Chapter 38,~~ Stills include pots, columns ~~and~~ condensing coils and the piping between them.

STORAGE AREA. An alcohol beverage production facility (ABPF) or portion thereof where alcohol beverages, ethanol mixtures or materials incorporated or utilized in the manufacture of either ethanol mixtures are held for maturation aging, awaiting transport, or subsequent handling (c.f., use area).

TANK. In an alcohol beverage production facility (APBF), any normally open or normally closed vessel having a capacity greater than 60 gallons (230 L) intended for storing or processing (but not transporting outside the facility) Class 1 Liquids and equipped with provisions for emergency venting.

USE AREA. An alcohol beverage production facility (ABPF) or portion thereof where ethanol mixtures or materials incorporated or utilized in the manufacture of alcohol beverages or other ethanol mixtures are actively handled in processes such as fermentation, distillation, rectification, transportation, remixing, dispensing, bottling, blending, etc. (c.f., storage area).

VAT (also FOUFRE). In an alcohol beverage production facility (APBF), a stationary tank constructed primarily of wood.

VESSEL. In an alcohol beverage production facility (APBF), any ~~Used in Chapter 38 to reference~~ reservoir holding – unless otherwise noted – Class 1 Liquids including casks, containers, intermediate bulk containers, processing vessels, and tanks.

WINERY. An alcohol beverage production facility (ABPF) or portion thereof, including accessory uses, in which wine is produced by fermentation.

Supporting Information (Required):

The DBC/IFC Chapter 40 (previously Chapter 38) was originally adopted into the 2016 Denver amendments to the 2015 IFC. It contained numerous definitions that were specific to ethyl alcohol generation and distillation processes and equipment. The definitions were moved wholesale into Chapter 2 to be consistent with the overall IBC and IFC formats – without, unfortunately, adding any qualifying language. Without qualifying these terms as distillery-specific, they are required to be applied generally. The changes to the definitions proposed here remove redundant language and clarify them to be either appropriately generic or distillery-specific.

Other Regulations Proposed to be Affected

N/A

Referenced Standards:

N/A

Impact:

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

Cost of construction: ___ Increase ___ Decrease X No Impact

Cost of design: ___ Increase ___ Decrease X No Impact

Restrictiveness: ___ Increase ___ Decrease X No Impact

Departmental Impact (City use only):

This amendment proposal increases/decreases/is neutral to the cost of plans review.

This amendment increases/decreases/is neutral to the cost of inspections.