

Environmental Protection Agency

Pt. 63, Subpt. CCCC, Table 2

Brew-to-exhaust correlation means the correlation between the concentration of ethanol in the brew and the concentration of VOC in the fermenter exhaust. This correlation is specific to each fed-batch fermentation stage and is established while manufacturing the product that comprises the largest percentage (by mass) of average annual production.

Emission limitation means any emission limit or operating limit.

Fed-batch means the yeast is fed carbohydrates and additives during fermentation in the vessel. In contrast, carbohydrates and additives are added to “set-batch” fermenters only at the start of the batch.

1-hour period means any 60-minute period commencing on the minute at which the batch monitoring period begins.

Product means the yeast resulting from the final stage in a production run. Products are distinguished by yeast species, strain, and variety.

Responsible official means responsible official as defined in 40 CFR 70.2.

Specialty yeast includes but is not limited to yeast produced for use in wine, champagne, whiskey, and beer.

Within-concentration batch means a batch for which the average VOC concentration is not higher than the maximum concentration that is allowed as part of the applicable emission limitation.

TABLE 1 TO SUBPART CCCC OF PART 63—EMISSION LIMITATIONS

As stated in § 63.2140, you must comply with the emission limitations in the following table:

For each fed-batch fermenter producing yeast in the following fermentation stage . . .	You must meet the following emission limitation . . .
Last stage (Trade); or Second-to-last stage (First Generation); or Third-to-last stage (Stock).	a. For at least 98 percent of all batches (sum of batches from last, second-to-last, and third-to-last stages) in each 12-month calculation period described in § 63.2171(b), the VOC concentration in the fermenter exhaust does not exceed the applicable maximum concentration (100 ppmv for last stage, 200 ppmv for second-to-last stage, or 300 ppmv for third-to-last stage), measured as propane, and averaged over the duration of a batch. b. The emission limitation does not apply during the production of specialty yeast.

TABLE 2 TO SUBPART CCCC OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS

As stated in § 63.2161, if you demonstrate compliance by monitoring brew ethanol, you must comply with the requirements for performance tests in the following table:

[Brew Ethanol Monitoring Only]

For each fed-batch fermenter for which compliance is determined by monitoring brew ethanol concentration and calculating VOC concentration in the fermenter exhaust according to the procedures in § 63.2161, you must . . .	Using . . .	According to the following requirements . . .
1. Measure VOC as propane 2. Select the sampling port's location and the number of traverse points. 3. Measure volumetric flow rate. 4. Perform gas analysis to determine the dry molecular weight of the stack gas. 5. Determine moisture content of the stack gas.	Method 25A*, or an alternative validated by EPA Method in the 301* and approved by the Administrator. Method 1* Method 2* Method 3* Method 4*	You must measure the VOC concentration in the fermenter exhaust at any point prior to dilution of the exhaust stream.

*EPA Test Methods found in appendix A of 40 CFR part 60.