

40 C.F.R. § 63.115

Process vent provisions—methods and procedures for process vent group determination.

- (a) For purposes of determining vent stream flow rate, total organic HAP or total organic carbon concentration or TRE index value, as specified under paragraph (b), (c), or (d) of this section, the sampling site shall be after the last recovery device (if any recovery devices are present) but prior to the inlet of any control device that is present and prior to release to the atmosphere.
- (1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling site.
- (2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.
- (b) To demonstrate that a vent stream flow rate is less than 0.005 standard cubic meter per minute in accordance with the Group 2 process vent definition of this subpart, the owner or operator shall measure flow rate by the following procedures:
- (1) The sampling site shall be selected as specified in paragraph (a) of this section.
- (2) The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.
- (c) Each owner or operator seeking to demonstrate that a vent stream has an organic HAP concentration below 50 parts per million by volume in accordance with the Group 2 process vent definition of this subpart shall measure either total organic HAP or TOC concentration using the following procedures:
- (1) The sampling site shall be selected as specified in paragraph (a) of this section.
- (2) Method 18 or Method 25A of 40 CFR part 60, appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used.
- (3) Where Method 18 of 40 CFR part 60, appendix A is used, the following procedures shall be used to calculate parts per million by volume concentration:
- (i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.
- (ii) The concentration of either TOC (minus methane and ethane) or organic HAP shall be calculated according to paragraph (c)(3)(ii)(A) or (c)(3)(ii)(B) of this section as applicable.
- (A) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be

computed for each run using the following equation:

$$C_{TOC} = \frac{\displaystyle\sum_{i=1}^{x} \Biggl(\displaystyle\sum_{j=1}^{x} C_{ji} \Biggr)}{X}$$

where:

 C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume. C_{ji} = Concentration of sample component j of the sample i, dry basis, parts per million by volume. n = Number of components in the sample. x = Number of samples in the sample run.

- (B) The total organic HAP concentration (C_{HAP}) shall be computed according to the equation in paragraph (c)(3) (ii)(A) of this section except that only the organic HAP species shall be summed. The list of organic HAP's is provided in table 2 of subpart F of this part.
 - (4) Where Method 25A of 40 CFR part 60, appendix A is used, the following procedures shall be used to calculate parts per million by volume TOC concentration:
- (i) Method 25A of 40 CFR part 60, appendix A, shall be used only if a single organic HAP compound is greater than 50 percent of total organic HAP, by volume, in the vent stream.
- (ii) The vent stream composition may be determined by either process knowledge, test data collected using an appropriate EPA method, or a method or data validated according to the protocol in Method 301 of appendix A of this part. Examples of information that could constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current vent stream conditions.

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