Determine the capture efficiency of a capture system by using one of the procedures in Table 5 to this subpart.

(2) *Determining capture efficiency of an alternative method.* As an alternative to constructing a permanent or temporary total enclosure, you may determine the capture efficiency using any capture efficiency protocol and test methods if the data satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach in appendix A to subpart KK of this part.

(3) *Determining efficiency of an add-on control device.* Use Table 5 to this subpart to select the test methods for determining the efficiency of an add-on control device.

TESTING AND INITIAL COMPLIANCE REQUIREMENTS FOR TIRE PRODUCTION AFFECTED SOURCES

§ 63.5994 How do I conduct tests and procedures for tire production affected sources?

(a) *Methods to determine the mass percent of HAP in cements and solvents.* To determine the HAP content in the cements and solvents used at your tire production affected source, use EPA Method 311 of appendix A of this part, an approved alternative method, or any other reasonable means for determining the HAP content of your cements and solvents. Other reasonable means include, but are not limited to: a material safety data sheet (MSDS), provided it contains appropriate information; a certified product data sheet (CPDS); or a manufacturer's hazardous air pollutant data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(b) *Methods to demonstrate compliance with the HAP constituent emission limits in Table 1 to this subpart (option 1).* Use the method in paragraph (b)(1) of this section to demonstrate initial and continuous compliance with the applicable emission limits for tire production affected sources using the compliance alternative described in §63.5985(a), purchase alternative. Use the equations in paragraphs (b)(2) and (3) of this section to demonstrate initial and continuous compliance with the emission limits for tire production affected sources using the monthly average compliance alternatives described in §63.5985(b) and (c).

(1) Determine the mass percent of each HAP in each cement and solvent according to the procedures in paragraph (a) of this section.

(2) Use Equation 1 of this section to calculate the HAP emission rate for each monthly operating period when complying by using cements and solvents without using an add-on control device so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart, option 1. Equation 1 follows:

$$E_{month} = \frac{\left(\sum_{i=1}^{n}(HAP_i)(TMASS_i)\right)(10^6)}{\sum_{i=1}^{n} TMASS_i} \qquad \text{(Eq. 1)}$$

Where:

E_{month}=mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

HAP_i=mass percent, expressed as a decimal, of the specific HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$=total mass of cement and solvent i used in the month, grams.

n=number of cements and solvents used in the month.

(3) Use Equation 2 of this section to calculate the HAP emission rate for each monthly period when complying by using a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart (option 1). Equation 2 follows:

$$E_{month} = \frac{\left\{\sum_{i=1}^{n}(HAP_i)(TMASS_i) + \sum_{j=1}^{m}(HAP_j)(TMASS_j)\left(1-\frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TMASS_k)\right\}(10^6)}{\sum_{i=1}^{n}TMASS_i + \sum_{j=1}^{m}TMASS_j + \sum_{k=1}^{p}TMASS_k} \quad \text{(Eq. 2)}$$

Where:

E_{month}=mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

HAP_i=mass percent, expressed as a decimal, of the specific HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$=total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

n=number of cements and solvents used in the month in processes that are not routed to a control device.

HAP_j=mass percent, expressed as a decimal, of the specific HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$=total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days, grams.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of cements and solvents used in the month that are routed to a control device during all operating days.

HAP_k=mass percent, expressed as a decimal, of the specific HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$=total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(c) *Methods to demonstrate compliance with the production-based emission limits in Table 1 to this subpart, option 2.* Use the methods and equations in paragraphs (c)(1) through (6) of this section to demonstrate initial and continuous compliance with the production-based emission limits for tire production affected sources using the compliance alternatives described in §63.5985(b) and (c).

(1) *Methods to determine the mass percent of each HAP in cements and solvents.* Determine the mass percent of all HAP in cements and solvents using the applicable methods specified in paragraph (a) of this section.

(2) *Quantity of rubber used.* Determine your quantity of rubber used (megagrams) by accounting for the total mass of mixed rubber compound that is delivered to the tire production operation.

(3) *Compliance without use of an add-on control device.* If you do not use an add-on control device to meet the emission limits, use Equation 3 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month

(megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 to this subpart, option 2. Equation 3 follows:

$$E_{month} = \frac{\sum_{i=1}^{n}(HAP_i)(TMASS_i)}{RMASS} \quad \text{(Eq. 3.)}$$

Where:

E_{month}=mass of all HAP emitted per total mass of rubber used month, grams per megagram.

HAP_i=mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$=total mass of cement and solvent i used in the month, grams.

n=number of cements and solvents used in the month.

RMASS=total mass of rubber used per month, megagrams.

(4) *Compliance with use of an add-on control device.* If you use a control device to meet the emission limits, use Equation 4 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month (megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 of this subpart, option 2. Equation 4 follows:

$$E_{month} = \frac{\sum_{i=1}^{n}(HAP_i)(TMASS_i) + \sum_{j=1}^{m}(HAP_j)(TMASS_j)\left(1-\frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TMASS_k)}{RMASS} \quad \text{(Eq. 4)}$$

Where:

E_{month}=mass of all HAP emitted per total mass rubber used per month, grams per megagram.

HAP_i=mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$=total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

n=number of cements and solvents used in the month in processes that are not routed to a control device.

HAP_j=mass percent, expressed as a decimal, of all HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$=total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of cements and solvents used in the month that are routed to a control device during all operating days.

HAP_k=mass percent, expressed as a decimal, of all HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$=total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

RMASS=total mass of rubber used per month, megagrams.

(5) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(d) *Specific compliance demonstration requirements for tire production affected sources.* (1) Conduct any required compliance demonstration according to the requirements in §63.5993.

(2) If you are demonstrating compliance with the HAP constituent option in Table 1 to this subpart, option 1, conduct the compliance demonstration

using cements and solvents that are representative of cements and solvents typically used at your tire production affected source.

(3) Establish an operating range that corresponds to the control efficiency as described in Table 5 to this subpart.

(e) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equations 2 and 4 of this section for HAP emissions reduced using a control system, you must meet the requirements in paragraphs (e)(1) and (2) of this section.

(1) Monitor the established operating parameters as appropriate.

(i) If you use a thermal oxidizer, monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle.

(iii) If you use a control device other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to §63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the natural draft openings (NDO) in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last compliance demonstration was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(2) Maintain the operating parameters within the operating range established during the compliance demonstration.

(f) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

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§63.5995 What are my monitoring installation, operation, and maintenance requirements?

(a) For each operating parameter that you are required by §63.5994(e)(1) to monitor, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the requirements in §63.5990(e) and (f) and in paragraphs (a)(1) through (6) of this section.

(1) You must operate your CPMS at all times that the process is operating.

(2) You must collect data from at least four equally spaced periods each hour.

(3) For at least 75 percent of the hours in an operating day, you must have valid data (as defined in your site-specific monitoring plan) for at least four equally spaced periods each hour.

(4) For each hour that you have valid data from at least four equally spaced periods, you must calculate the hourly average value using all valid data.

(5) You must calculate the daily average using all of the hourly averages calculated according to paragraph (a)(3) of this section for the 24-hour period.

(6) You must record the results for each inspection, calibration, and validation check as specified in your site-specific monitoring plan.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a) and (b)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a non-cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 2 percent of