Environmental Protection Agency

§ 75.16 Special provisions for monitoring emissions from common, bypass, and multiple stacks for SO₂ emissions and heat input determinations.

(a) [Reserved]

(b) Common stack procedures. The following procedures shall be used when more than one unit uses a common stack:

(1) Unit utilizing common stack with other affected unit(s). When a Phase I or Phase II affected unit utilizes a common stack with one or more other Phase I or Phase II affected units, but no nonaffected units, the owner or operator shall either:

(i) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in the duct to the common stack from each affected unit; or

(ii) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in the common stack and combine emissions for the affected units for recordkeeping and compliance purposes.

(A) Combine emissions for the affected units for recordkeeping and compliance purposes; or

(B) Provide information satisfactory to the Administrator on methods for apportioning SO₂ mass emissions measured in the common stack to each of the Phase I and Phase II affected units. The designated representative shall provide the information to the Administrator through a petition submitted under § 75.66. The Administrator may approve such substitute methods for apportioning SO₂ mass emissions measured in a common stack whenever the method ensures complete and accurate accounting of all emissions regulated under this part.

(2) Unit utilizing common stack with nonaffected unit(s). When one or more Phase I or Phase II affected units utilizes a common stack with one or more nonaffected units, the owner or operator shall either:

(i) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in the duct to the common stack from each Phase I and Phase II unit; or

(ii) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in the common stack; and

(A) Designate the nonaffected units as opt-in units in accordance with part 74 of this chapter and combine emissions for recordkeeping and compliance purposes; or

(B) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in the duct from each nonaffected unit; determine SO₂ mass emissions from the affected units as the difference between SO₂ mass emissions measured in the common stack and SO₂ mass emissions measured in the ducts of the nonaffected units, not to be reported as an hourly average value less than zero; combine emissions for the Phase I and Phase II affected units for recordkeeping and compliance purposes; and calculate and report SO₂ mass emissions from the Phase I and Phase II affected units, pursuant to an approach approved by the Administrator, such that these emissions are not underestimated; or

(C) Record the combined emissions from all units as the combined SO₂ mass emissions for the Phase I and Phase II affected units for recordkeeping and compliance purposes; or

(D) Petition through the designated representative and provide information satisfactory to the Administrator on methods for apportioning SO₂ mass emissions measured in the common stack to each of the units using the common stack and on reporting the
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SO₂ mass emissions. The Administrator may approve such demonstrated substitute methods for apportioning and reporting SO₂ mass emissions measured in a common stack whenever the demonstration ensures that there is a complete and accurate accounting of all emissions regulated under this part and, in particular, that the emissions from any affected unit are not underestimated.

(c) Unit with bypass stack. Whenever any portion of the flue gases from an affected unit can be routed through a bypass stack so as to avoid the installed SO₂ continuous emission monitoring system and flow monitoring system, the owner or operator shall either:

(1) Install, certify, operate, and maintain separate SO₂ continuous emission monitoring systems and flow monitoring systems on the main stack and the bypass stack and calculate SO₂ mass emissions for the unit as the sum of the SO₂ mass emissions measured at the two stacks; or

(2) Monitor SO₂ mass emissions at the main stack using SO₂ and flow rate monitoring systems and measure SO₂ mass emissions at the bypass stack using the reference methods in §75.22(b) for SO₂ and flow rate and calculate SO₂ mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems; or

(3) Install, certify, operate, and maintain SO₂ and flow rate monitoring systems only on the main stack. If this option is chosen, report the following values for each hour during which emissions pass through the bypass stack: the maximum potential concentration of SO₂ as determined under section 2.1.1.1 of appendix A to this part (or, if available, the SO₂ concentration measured by a certified monitor located at the control device inlet may be reported instead), and the hourly volumetric flow rate value that would be substituted for the flow monitor installed on the main stack or flue under the missing data procedures in subpart D of this part if data from the flow monitor installed on the main stack or flue were missing for the hour.

The maximum potential SO₂ concentration may be specific to the type of fuel combusted in the unit during the bypass (see §75.33(b)(5)). The option in this paragraph, (c)(3), may only be used if use of the bypass stack is limited to unit startup, emergency situations (e.g., malfunction of a flue gas desulfurization system), and periods of routine maintenance of the flue gas desulfurization system or maintenance on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under §75.53, with respect to SO₂ or any other parameter that is monitored only at the main stack. Calculate SO₂ mass emissions for the unit as the sum of the emissions calculated with the substitute values and the emissions recorded by the SO₂ and flow monitoring systems installed on the main stack.

(d) Unit with multiple stacks or ducts. When the flue gases from an affected unit utilize two or more ducts feeding into two or more stacks (that may include flue gases from other affected or nonaffected units), or when the flue gases utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor in the ducts rather than the stack, the owner or operator shall either:

(1) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in each duct feeding into the stack or stacks and determine SO₂ mass emissions from each affected unit as the sum of the SO₂ mass emissions recorded for each duct; or

(2) Install, certify, operate, and maintain an SO₂ continuous emission monitoring system and flow monitoring system in each stack. Determine SO₂ mass emissions from each affected unit as the sum of the SO₂ mass emissions recorded for each stack. Notwithstanding the prior sentence, if another unit also exhausts flue gases to one or more of the stacks, the owner or operator shall also comply with the applicable common stack requirements of this section to determine and record SO₂ mass emissions from the units using that stack and shall calculate and report SO₂ mass emissions from the affected
units and stacks, pursuant to an approach approved by the Administrator, such that these emissions are not underestimated.

(e) **Heat input rate.** The owner or operator of an affected unit using a common stack, bypass stack, or multiple stacks shall account for heat input rate according to the following:

1. **The owner or operator of an affected unit using a common stack, bypass stack, or multiple stacks with a diluent monitor and a flow monitor on each stack may use the flow rate and diluent monitors to determine the heat input rate for the affected unit, using the procedures specified in paragraphs (b) through (d) of this section, except that the term “heat input rate” shall apply rather than “SO\(_2\) mass emissions” or “emissions” and the phrase “a diluent monitor and a flow monitor” shall apply rather than “SO\(_2\) continuous emission monitoring system and flow monitoring system.” The applicable equation in appendix F to this part shall be used to calculate the heat input rate from the hourly flow rate, diluent monitor measurements, and (if the equation in appendix F requires a correction for the stack gas moisture content) hourly moisture measurements. Notwithstanding the options for combining heat input rate in paragraph (b)(1)(ii) and (b)(2)(ii) of this section, the owner or operator of an affected unit with a diluent monitor and a flow monitor installed on a common stack to determine the combined heat input rate at the common stack shall also determine and report heat input rate to each individual unit, according to paragraph (e)(3) of this section.

2. **In the event that an owner or operator of a unit with a bypass stack does not install and certify a diluent monitor and flow monitoring system in a bypass stack, the owner or operator shall determine total heat input rate to the unit for each unit operating hour during which the bypass stack is used according to the missing data provisions for heat input rate under §75.36 or the procedures for calculating heat input rate from fuel sampling and analysis in section 5.5 of appendix F to this part.

3. **The owner or operator of an affected unit with a diluent monitor and a flow monitor installed on a common stack to determine heat input rate at the common stack may choose to apportion the heat input rate from the common stack to each affected unit utilizing the common stack by using either of the following two methods, provided that all of the units utilizing the common stack are combusting fuel with the same F-factor found in section 3 of appendix F of this part. The heat input rate may be apportioned either by using the ratio of load (in MW) for each individual unit to the total load for all units utilizing the common stack or by using the ratio of steam load (in 1000 lb/hr or mmBtu/hr thermal output) for each individual unit to the total steam load for all units utilizing the common stack, in conjunction with the appropriate unit and stack operating times. If using either of these apportionment methods, the owner or operator shall apportion according to section 5.6 of appendix F to this part.

4. **Notwithstanding paragraph (e)(1) of this section, any affected unit that is using the procedures in this part to meet the monitoring and reporting requirements of a State or federal NO\(_X\) mass emission reduction program must also meet the requirements for monitoring heat input rate in §§75.71, 75.72 and 75.75.