**Section 226.160 Operational Measurement for Total Enclosure**

a) An owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must measure the total area of all natural draft openings and the total surface area of the total enclosure.

b) An owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must measure the facial velocity of air flowing through all natural draft openings using the following equation while any lead emission unit applicable to the operation listed in Section 226.155(a) is operating. Values for Qo and QI must be obtained by means of testing pursuant to subsection (b)(1) or monitoring pursuant to subsection (b)(2):



Where:

|  |  |  |
| --- | --- | --- |
| Q0 | = | the sum of volumetric flow from all gas streams exiting the total enclosure through the control device. |
| QI | = | the sum of the volumetric flow from all gas streams into the total enclosure through a forced makeup air duct; zero if there is no forced makeup air into the total enclosure. |
| An | = | total area of all natural draft openings in the total enclosure. |

1) An owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must conduct testing to determine the values for Qo and QI at the same time as any emissions testing is conducted pursuant to Section 226.175; or

2) An owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must install, maintain, and operate a flow monitor at the outlet of each control device required by Section 226.140 to measure the volumetric flow from all gas streams exiting the total enclosure through the control device (or the final control device emitting to the atmosphere if the source has more than one control device in series). This volumetric flow data must be monitored and automatically recorded every minute.

c) As an alternative to compliance with the requirements of subsection (b), an owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must install, operate, and maintain instrumentation to monitor the pressure differential between the interior and exterior of the enclosure, measured in inches of water, to demonstrate compliance with the differential pressure requirements in Section 226.155(c). This instrumentation must be located and designed to operate in accordance with all of the requirements of subsections (c)(1) through (6):

1) An owner or operator of a total enclosure that has a total ground surface area of 10,000 square feet or more must install and maintain a minimum of one building digital differential pressure monitoring system at each of the following 3 walls in each total enclosure:

A) The leeward wall.

B) The windward wall.

C) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus 10 meters of the midpoint of a straight line between the 2 other monitors specified. The midpoint monitor must not be located on the same wall as either of the other 2 monitors.

2) An owner or operator of a total enclosure that has a total ground surface area of less than 10,000 square feet must install and maintain a minimum of one building digital differential pressure monitoring system at the leeward wall of each total enclosure.

3) Each digital differential pressure monitoring system must be certified by the manufacturer to be capable of measuring and displaying negative pressure in the range of 0.001 to 0.11 inches of water (0.002 to 0.2 mm Hg) with a minimum accuracy of plus or minus 0.001 inches of water (0.002 mm Hg).

4) Each digital differential pressure monitoring system must be equipped with a continuous recorder.

5) Each digital differential pressure monitoring system must be calibrated in accordance with manufacturer's specifications at least once every 12 calendar months or more frequently if recommended by the manufacturer.

6) Each digital differential pressure monitoring system must be equipped with a backup, uninterruptible power supply to ensure continuous operation of the monitoring system during a power outage.

d) An owner or operator of a lead emission unit subject to the total enclosure requirement of Section 226.155 must develop and maintain a Continuous Parametric Monitoring Plan containing the information required in subsection (d)(1), (2), or (3). The CPMP must be submitted for review and approval to the Section Manager by the compliance date specified in Section 226.130 and within 30 days after any changes are made to the plan. The CPMP must be amended by the owner or operator of a lead emission unit subject to this Part as necessary to ensure that it is kept current. The owner or operator of a lead emission unit subject to this Part must conduct monitoring in accordance with the CPMP at all times.

1) If electing to comply with the facial velocity requirement in Section 226.155(c) using the total enclosure measurement method in subsection (b)(1), the CPMP must contain the information required by subsections (d)(1)(A) through (D).

A) The CPMP must identify the operating parameters to be monitored on an ongoing basis to ensure that the facial velocity measured during the most recent compliance test is maintained, explain why those parameters are appropriate for demonstrating ongoing compliance, and identify the specific monitoring procedures for each parameter.

B) The CPMP must specify limits or ranges of values of the operating parameters listed pursuant to subsection (d)(1)(A) that demonstrate compliance with the facial velocity requirements in Section 226.155(c). These limits or ranges must represent the conditions indicative of proper operation and maintenance of the facial velocity through all natural draft openings during operation of lead emission units in each total enclosure.

C) The CPMP must specify data to be recorded to demonstrate compliance with the facial velocity requirements in Section 226.155(c), as well as the recording frequency and methodology.

D) The CPMP must specify the information to be reported to the Agency to demonstrate compliance with the facial velocity requirements in Section 226.155(c). This information must include, but is not limited to, all information to be submitted as part of the semiannual reports required by Section 226.185(n), as well as the reporting frequency.

2) If electing to comply with the facial velocity requirement in Section 226.155(c) using the total enclosure monitoring method in subsection (b)(2), the CPMP must contain the information required by subsections (d)(2)(A) through (C).

A) The CPMP must specify limits or ranges of values of the sum of volumetric flow from all gas streams exiting the total enclosure through the control device and the sum of the volumetric flow from all gas streams into the total enclosure through a forced makeup air duct. These limits or ranges must represent the conditions indicative of proper operation and maintenance of the facial velocity through all natural draft openings during operation of lead emission units in each total enclosure.

B) The CPMP must specify data to be recorded to demonstrate compliance with the facial velocity requirements in Section 226.155(c), as well as the recording frequency and methodology.

C) The CPMP must specify the information to be reported to the Agency to demonstrate compliance with the facial velocity requirements in Section 226.155(c). This information must include, but is not limited to, all information to be submitted as part of the semiannual reports required by Section 226.185(n), as well as the reporting frequency.

3) If electing to comply with the average differential pressure requirement in Section 226.155(c) using the total enclosure measurement method in subsection (c), the CPMP must contain the information required by subsections (d)(3)(A) through (C).

A) The CPMP must identify the locations and design of each differential pressure monitoring instrumentation demonstrating compliance with the requirements of subsection (c) to ensure that the average differential pressure is measured properly, explain why those locations are appropriate for demonstrating ongoing compliance, and provide a schedule for instrumentation calibration.

B) The CPMP must specify data to be recorded to demonstrate compliance with the average differential pressure requirements in Section 226.155(c), as well as the recording frequency and methodology.

C) The CPMP must specify the information to be reported to the Agency to demonstrate compliance with the average differential pressure requirements in Section 226.155(c). This information must include, but is not limited to, all information to be submitted as part of the semiannual reports required by Section 226.185(n), as well as the reporting frequency.

e) The owner or operator of a lead emission unit subject to this Part electing to change the total enclosure measurement method for an existing lead emission unit subject to the total enclosure requirements of Section 226.155 must notify the Section Manager of the measurement method by which the owner or operator will comply with the requirements of this Section. The notification must include an updated CPMP complying with the appropriate requirements for the new measurement method and must occur at least 30 days prior to changing the method.