For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is proposed to be amended as follows:

# PART 63 - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

2. It is proposed that part 63 be amended by adding subpart MM to read as follows:

<u>Subpart MM -- National Emission Standards for Hazardous Air Pollutants; Proposed</u>

<u>Standards for Hazardous Air Pollutants from Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills.</u>

Sec.

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Delegation of authority.

Subpart MM -- National Emission Standards for Hazardous Air Pollutants; Proposed

Standards for Hazardous Air Pollutants from Chemical Recovery Combustion Sources at

Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills.

- § 63.860 Applicability and designation of affected source.
- (a) This subpart applies to the NDCE recovery furnaces, DCE recovery furnace systems, smelt dissolving tanks, and lime kilns at kraft and soda pulp mills; the sulfite combustion units at sulfite pulp mills; and the semichemical combustion units at standalone semichemical pulp mills.
- (b) <u>Affected sources</u>. The affected sources to which the provisions of this subpart apply are:
- (1) Each NDCE recovery furnace and associated smelt dissolving tank(s) located at a kraft or soda pulp mill.
- (2) Each DCE recovery furnace system and associated smelt dissolving tank(s) located at a kraft or soda pulp mill.
  - (3) Each lime kiln located at a kraft or soda pulp mill.
  - (4) Each sulfite combustion unit located at a sulfite pulp mill.
- (5) Each semichemical combustion unit located at a stand-alone semichemical pulp mill.
- (c) The owner or operator of an affected source subject to the provisions of this subpart must also comply with the requirements of subpart A of this part, according to the applicability of subpart A to such affected sources, as identified in Table 1 of this subpart. § 63.861 Definitions.

All terms used in this subpart are defined in the Act, in subpart A of this part, or in this section. For the purposes of this subpart, if the same term is defined in subpart A or any other subpart of this part and in this section, it shall have the meaning given in this section.

Black liquor means spent cooking liquor that has been separated from the pulp produced by the kraft, soda, or semichemical pulping process.

Black liquor oxidation (BLO) system means the vessels used to oxidize the black liquor, with air or oxygen, and the associated storage tank(s).

Black liquor solids (BLS) means the dry weight of the solids in the black liquor that enters the recovery furnace or semichemical combustion unit.

Black liquor solids firing rate means the rate at which black liquor solids are fed to the recovery furnace or the semichemical combustion unit.

<u>Chemical recovery combustion source</u> means any source in the chemical recovery area of a kraft, soda, sulfite or stand-alone semichemical pulp mill that is an NDCE recovery furnace, a DCE recovery furnace system, a smelt dissolving tank (SDT), a lime kiln, a sulfite combustion unit, or a semichemical combustion unit.

<u>Direct contact evaporator (DCE) recovery furnace</u> means a kraft or soda recovery furnace equipped with a direct contact evaporator that concentrates strong black liquor by direct contact between the hot recovery furnace exhaust gases and the strong black liquor.

<u>Direct contact evaporator (DCE) recovery furnace system</u> means a direct contact evaporator recovery furnace and any black liquor oxidation system, if present, at the pulp mill.

<u>Dry electrostatic precipitator (ESP) system</u> means an electrostatic precipitator with a dry bottom (i.e., no black liquor, water, or other fluid is used in the ESP bottom) and a

dry particulate matter (PM) return system (i.e., no black liquor, water, or other fluid is used to transport the collected PM to the mix tank).

Kraft pulp mill means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a solution of sodium hydroxide and sodium sulfide.

The recovery process used to regenerate cooking chemicals is also considered part of the kraft pulp mill.

<u>Kraft recovery furnace</u> means a recovery furnace that is used to burn black liquor produced by the kraft pulping process, as well as any recovery furnace that burns black liquor produced from both the kraft and semichemical pulping processes, and includes the direct contact evaporator, if applicable.

<u>Lime production rate</u> means the rate at which dry lime, measured as calcium oxide (CaO), is produced in the lime kiln.

<u>Lime kiln</u> means the combustion unit (e.g., rotary lime kiln or fluidized-bed calciner) used at a kraft or soda pulp mill to calcine lime mud, which consists primarily of calcium carbonate, into quicklime, which is CaO.

Method detection limit means the minimum concentration of an analyte that can be determined with 99 percent confidence that the true value is greater than zero.

Modification means, for the purposes of §63.862(a)(1)(ii)(E)(1), any physical change (excluding any routine part replacement or maintenance) or operational change (excluding any operational change that occurs during a start-up, shutdown, or malfunction), that is made to the air pollution control device that could result in an increase in PM emissions.

Nondetect data means, for the purposes of this subpart, any value that is below the method detection limit.

Nondirect contact evaporator (NDCE) recovery furnace means a kraft or soda recovery furnace that burns black liquor that has been concentrated by indirect contact with steam.

Particulate matter (PM) means total particulate matter as measured by EPA Method 5, EPA Method 17 (see § 63.865(b)(1)), or EPA Method 29.

PM hazardous air pollutant (HAP) means the sum of all emissions of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 and with treatment of nondetect data as specified in § 63.865(b)(2).

Recovery furnace means an enclosed combustion device where concentrated black liquor produced by the kraft or soda pulping process is burned to recover pulping chemicals and produce steam.

Regenerative thermal oxidizer (RTO) means a thermal oxidizer that transfers heat from the exhaust gas stream to the inlet gas stream by passing the exhaust stream through a bed of ceramic stoneware or other heat-absorbing medium before releasing it to the atmosphere, then reversing the gas flow so the inlet gas stream passes through the heated bed, raising the temperature of the inlet stream close to or at its ignition temperature.

<u>Semichemical combustion unit</u> means any equipment used to combust or pyrolyze black liquor at stand-alone semichemical pulp mills for the purpose of chemical recovery.

Smelt dissolving tank (SDT) means a vessel used for dissolving the smelt collected from a kraft or soda recovery furnace.

<u>Similar process units</u> means all DCE and NDCE recovery furnaces, all smelt dissolving tanks, or all lime kilns at a kraft or soda pulp mill.

Soda pulp mill means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a sodium hydroxide solution. The recovery process used to regenerate cooking chemicals is also considered part of the soda pulp mill.

<u>Soda recovery furnace</u> means a recovery furnace used to burn black liquor produced by the soda pulping process, and includes the direct contact evaporator, if applicable.

Stand-alone semichemical pulp mill means any stationary source that produces pulp from wood by partially digesting wood chips in a chemical solution followed by mechanical defibrating (grinding) and has an onsite chemical recovery process that is not integrated with a kraft pulp mill.

<u>Sulfite pulp mill</u> means any stationary source that produces pulp from wood by cooking (digesting) wood chips in a solution of sulfurous acid and bisulfite ions. The recovery process used to regenerate cooking chemicals is also considered part of the sulfite pulp mill.

<u>Sulfite combustion unit</u> means a combustion device, such as a recovery furnace or fluidized-bed reactor, where spent liquor from the sulfite pulping process (i.e., red liquor) is burned to recover pulping chemicals.

Total hydrocarbons (THC) means the sum of organic compounds measured as carbon using EPA Method 25A.

#### § 63.862 Standards.

#### (a) Standards for PM HAP: existing sources.

- (1) Each owner or operator of an existing kraft or soda pulp mill shall comply with the requirements of either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.
- (i) Each owner or operator of a kraft or soda pulp mill shall comply with either the PM or PM HAP emission limits in paragraphs (a)(1)(i)(A) through (C) of this section.
- (A) The owner or operator of each existing kraft or soda recovery furnace shall ensure that:
- (1) The concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen; or
- (2) The PM HAP emissions discharged to the atmosphere are less than or equal to 1.00E-03 kg/Mg (2.01E-03 lb/ton) of black liquor solids fired.
- (B) The owner or operator of each existing kraft or soda smelt dissolving tank shall ensure that:
- (1) The concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 kg/Mg (0.20 lb/ton) of black liquor solids fired; or
- (2) The PM HAP emissions discharged to the atmosphere are less than or equal to 6.20E-05 kg/Mg (1.24E-04 lb/ton) of black liquor solids fired.
- (C) The owner or operator of each existing kraft or soda lime kiln shall ensure that:
- (1) The concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen; or
- (2) The PM HAP emissions discharged to the atmosphere are less than or equal to 6.33E-03 kg/Mg (1.27E-02 lb/ton) of CaO produced.

- (ii) As an alternative to meeting the requirements of § 63.862(a)(1)(i), each owner or operator of a kraft or soda pulp mill may establish PM or PM HAP emission limits for each existing kraft or soda recovery furnace, smelt dissolving tank, and lime kiln that operates 6,300 hours per year or more by:
- (A) Establishing an overall PM emission limit for all affected existing sources at the kraft or soda pulp mill using the methods in § 63.865(a)(1)(i); or
- (B) Establishing an overall PM HAP emission limit for all affected existing sources at the kraft or soda pulp mill using the methods in § 63.865(a)(1)(ii).
- (C) The emission limits for each kraft recovery furnace, smelt dissolving tank, and lime kiln that are used to establish the overall PM limit in paragraph (a)(2)(ii)(A) of this section shall not be less stringent than the emission limitations required by § 60.282 of part 60 for any kraft recovery furnace, smelt dissolving tank, or lime kiln that is subject to the requirements of § 60.282.
- (D) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln shall ensure that the PM or PM HAP emissions discharged to the atmosphere from each of these sources are less than or equal to the applicable PM or PM HAP limits, established using the methods in § 63.865(a)(1)(i) or (ii), that are used to establish the overall PM or PM HAP limit in paragraphs (a)(2)(ii)(A) or (B) of this section.
- (E) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank or lime kiln must reestablish the emission limits determined in paragraphs (a)(1)(ii)(A) or (B) of this section if either of the following actions are taken:

- (1) The air pollution control system for any existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln for which an emission limit was established in paragraphs (a)(1)(ii)(A) or (B) is modified (as defined in §63.861) or replaced; or
- (2) Any kraft or soda recovery furnace, smelt dissolving tank, or lime kiln for which an emission limit was established in paragraphs (a)(1)(ii)(A) or (B) is shut down for more than 60 consecutive days.
- (iii) Each owner or operator of an existing kraft or soda recovery furnace, smelt dissolving tank, or lime kiln that operates less than 6,300 hours per year shall comply with the applicable PM or PM HAP emission limit for that source provided in paragraph (a)(1)(i) of this section.
- (2) The owner or operator of each existing sulfite combustion unit shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.092 g/dscm (0.040 gr/dscf) corrected to 8 percent oxygen.
  - (b) Standards for PM HAP: new sources.
- (1) The owner or operator of any new kraft or soda recovery furnace shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.034 g/dscm (0.015 gr/dscf) corrected to 8 percent oxygen.
- (2) The owner or operator of any new kraft or soda smelt dissolving tank shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.06 kg/Mg (0.12 lb/ton) of black liquor solids fired.
- (3) The owner or operator of any new kraft or soda lime kiln shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.023 g/dscm (0.010 gr/dscf) corrected to 10 percent oxygen.

- (4) The owner or operator of any new sulfite combustion unit shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.046 g/dscm (0.020 gr/dscf) corrected to 8 percent oxygen.
  - (c) Standards for total gaseous organic HAP.
- (1) The owner or operator of any new recovery furnace at a kraft or soda pulp mill shall ensure that the concentration of total gaseous organic HAP, as measured by methanol, discharged to the atmosphere is no greater than 0.012 kg/Mg (0.025 lb/ton) of black liquor solids fired.
- (2) The owner or operator of each existing or new semichemical combustion unit shall ensure that:
- (i) The concentration of total gaseous organic HAP, as measured by total hydrocarbons reported as carbon, discharged to the atmosphere is less than or equal to 1.49 kg/Mg (2.97 lb/ton) of black liquor solids fired; or
- (ii) The total gaseous organic HAP emissions, as measured by total hydrocarbons reported as carbon, are reduced by at least 90 percent prior to discharge of the gases to the atmosphere.
- § 63.863 Compliance dates.
- (a) The owner or operator of an existing affected source shall comply with the requirements in this subpart no later than 3 years after the effective date.
- (b) The owner or operator of a new affected source that has an initial startup date after the effective date of these standards shall comply with the requirements in this subpart immediately upon startup of the affected source, except as specified in § 63.6(b) of subpart A of this part.

§ 63.864 Monitoring requirements.

#### (a) General.

- (1) The owner or operator of each affected kraft or soda recovery furnace or lime kiln equipped with an ESP shall install, calibrate, maintain, and operate a continuous opacity monitoring system that can be used to determine opacity at least once every successive 10-second period and calculate and record each successive 6-minute average opacity using the procedures in §§ 63.6(h) and 63.8 of subpart A of this part.
- (2) The owner or operator of each affected kraft or soda lime kiln, sulfite recovery furnace, or kraft or soda smelt dissolving tank equipped with a wet scrubber shall install, calibrate, maintain, and operate a continuous monitoring system that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flowrate at least once every successive 15-minute period using the procedures in § 63.8(c) as well as the following:
- (i) The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber shall be certified by the manufacturer to be accurate to within a gage pressure of  $\pm 500$  pascals ( $\pm 2$  inches of water gage pressure); and
- (ii) The monitoring device used for continuous measurement of the scrubbing liquid flowrate shall be certified by the manufacturer to be accurate within  $\pm 5$  percent of the design scrubbing liquid flowrate.
- (3) The owner or operator of each affected semichemical combustion unit equipped with an RTO shall install, calibrate, maintain, and operate a continuous monitoring system that can be used to determine and record the operating temperature of the RTO at least once every successive 15-minute period using the procedures in

- § 63.8(c). The monitor shall compute and record the operating temperature at the point of incineration of effluent gases that are emitted using a temperature monitor accurate to within  $\pm 1$  percent of the temperature being measured.
- (4) The owner or operator of each affected source that uses a control device listed in paragraphs (a)(1) through (a)(3) of this section may monitor alternative control device operating parameters subject to prior written approval by the Administrator.
- (5) The owner or operator of each affected source that uses an air pollution control system other than those listed in paragraphs (a)(1) through (a)(3) of this section shall monitor the parameters as approved by the Administrator using the methods and procedures in § 63.865(f).
- (6) The owner or operator of each affected source complying with the total gaseous organic HAP emission limitations of § 63.862(c)(1) through the use of an NDCE recovery furnace equipped with a dry ESP system is not required to conduct any performance testing or any continuous monitoring to demonstrate compliance with the total gaseous organic HAP emission limitation.
  - (b) Initial compliance determination.
- (1) The owner or operator of each affected source subject to the requirements of this subpart is required to conduct an initial performance test using the test methods and procedures listed in § 63.7 of subpart A of this part and § 63.865, except as provided in paragraph (b)(3) of this section.

- (2) <u>Determination of operating ranges</u>.
- (i) During the initial performance test required in paragraph (b)(1) of this section, the owner or operator of any affected source shall establish operating ranges for the monitoring parameters in paragraphs (a)(2) through (a)(5) of this section, as appropriate; or
- (ii) The owner or operator may base operating ranges on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating ranges, provided that test data used to establish the operating ranges are or have been obtained using the test methods required in this subpart. The owner or operator of the affected source shall certify that all control techniques and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter ranges were obtained.
- (iii) The owner or operator of an affected source may establish expanded or replacement operating ranges for the monitoring parameter values listed in paragraphs (a)(2) through (a)(5) of this section and established in paragraphs (b)(2)(i) or (ii) of this section during subsequent performance tests using the test methods in § 63.865.
- (3) An initial performance test is not required to be conducted in order to determine compliance with the emission limitations of § 63.862(c)(1) if the affected source includes an NDCE recovery furnace equipped with a dry ESP system.
- (4) After the Administrator has approved the PM or PM HAP limits for each kraft or soda recovery furnace, smelt dissolving tank, and lime kiln, the owner or operator complying with an overall PM or overall PM HAP emission limit established in

§ 63.862(a)(1)(ii) shall demonstrate compliance with the PM HAP standard by demonstrating compliance with the approved PM or PM HAP emission limits for each affected kraft or soda recovery furnace, smelt dissolving tank, and lime kiln, using the test methods and procedures in § 63.865(b).

- (c) On-going compliance provisions.
- (1) Following the compliance date, owners or operators of all affected sources are required to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under § 63.866(a) of this subpart if the following monitoring exceedances occur:
- (i) For a new or existing kraft recovery furnace or lime kiln equipped with an
   ESP, when 10 consecutive 6-minute averages result in a measurement greater than
   20 percent opacity;
- (ii) For a new or existing smelt dissolving tank, lime kiln, or sulfite combustion unit equipped with a wet scrubber, when any 3-hour average parameter value is outside the range of values established in paragraph (b)(2) of this section.
- (iii) For a new or existing semichemical combustion unit equipped with an RTO, when any 1-hour average temperature falls below the temperature established in paragraph (b)(2) of this section;
- (iv) For an affected source equipped with an alternative emission control system approved by the Administrator, when any 3-hour average value is outside the range of parameter values established in paragraph (b)(2) of this section; and

- (v) For an affected source that is monitoring alternative operating parameters established in paragraph (a)(4) of this section, when any 3-hour average value is outside the range of parameter values established in paragraph (b)(2) of this section.
- (2) Following the compliance date, owners or operators of all affected sources are in violation of the standards of § 63.862 if the following monitoring exceedances occur:
- (i) For an existing kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 35 percent for 6 percent or more of the time within any 6-month reporting period;
- (ii) For a new kraft or soda recovery furnace or a new or existing lime kiln equipped with an ESP, when opacity is greater than 20 percent for 6 percent or more of the time within any 6-month reporting period;
- (iii) For a new or existing smelt dissolving tank, lime kiln, or sulfite combustion unit equipped with a wet scrubber, when six or more 3-hour average parameter values within any 6-month reporting period are outside the range of values established in paragraph (b)(2) of this section;
- (iv) For a new or existing semichemical combustion unit equipped with an RTO, when any 3-hour average temperature falls below the temperature established in paragraph (b)(2) of this section;
- (v) For an affected source equipped with an alternative air pollution control system approved by the Administrator, when six or more 3-hour average values within any 6-month reporting period are outside the range of parameter values established in paragraph (b)(2) of this section; and

- (vi) For an affected source that is monitoring alternative operating parameters established in paragraph (a)(4) of this section, when six or more 3-hour average values within any 6-month reporting period are outside the range of parameter values established in paragraph (b)(2) of this section.
- (3) For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance shall be attributed in any given 24-hour period.
- § 63.865 Performance test requirements and test methods.
- (a) The owner or operator of an affected source seeking to comply with a PM or PM HAP emission limit under § 63.862(a)(1)(ii)(A) or (B) shall use the following procedures:
  - (1) Determine either the overall PM limit or overall PM HAP limit for the mill.
  - (i) The overall PM limit for the mill shall be determined as follows:

$$\begin{split} \mathtt{EL}_{\mathtt{PM}} &= \left[ \left( \, \mathtt{C}_{\mathtt{ref},\mathtt{RF}} \right) \left( \, \mathtt{Q}_{\mathtt{RFtot}} \right) + \left( \, \mathtt{C}_{\mathtt{ref},\mathtt{LK}} \right) \left( \, \mathtt{Q}_{\mathtt{LKtot}} \right) \, \right] \left( \, \mathtt{F1} \, \right) / \left( \, \mathtt{BLS}_{\mathtt{tot}} \right) \; + \; \mathtt{ER1}_{\mathtt{ref},\mathtt{SDT}} \\ & \qquad \qquad \\ \mathtt{Eq.} \quad (1) \end{split}$$

where:

- $EL_{PM} = ext{ overall PM emission limit for all existing affected sources at}$  the kraft or soda pulp mill, kg/Mg (lb/ton) of black liquor solids fired.
- $C_{ref,RF}$  = reference concentration of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen for existing kraft or soda recovery furnaces.

- $Q_{RFtot} =$ sum of the average gas flow rates measured during the performance test from all existing recovery furnaces at the kraft or soda pulp mill, dry standard cubic meters per minute (dscm/min) (dry standard cubic feet per minute [dscf/min]).
- $C_{\rm ref,LK}=\,$  reference concentration of 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen for existing kraft or soda lime kilns.
- $Q_{LKtot} = {
  m sum \ of \ the \ average \ gas \ flow \ rates \ measured \ during \ the}$  performance test from all existing lime kilns at the kraft or soda pulp mill, dscm/min (dscf/min).
  - F1 = conversion factor, 1.44 minutes• kilogram/day•gram

    (min•kg/d•g) (0.206 minutes•pound/day•grain [min•lb/d•gr]).
- $BLS_{tot} =$ sum of the average black liquor solids firing rates of all existing recovery furnaces at the kraft or soda pulp mill measured during the performance test, megagrams per day (Mg/d) (tons per day [tons/d]) of black liquor solids fired.
- ${\rm ER1_{ref,SDT}} = {\rm reference\ emission\ rate\ of\ 0.10\ kg/Mg\ (0.20\ lb/ton)\ of\ black}$  liquor solids fired for existing kraft or soda smelt dissolving tanks; or
- (ii) The overall PM HAP limit for the mill shall be determined as follows:

$$EL_{PMHAP} = ER_{ref,RF} + (ER_{ref,LK})(CaO_{tot}/BLS_{tot}) + ER2_{ref,SDT}$$

- $EL_{PMHAP} =$  overall PM HAP emission limit for all existing affected sources at the kraft or soda pulp mill, kg/Mg (lb/ton) of black liquor solids fired.
- $ER_{ref,RF}$  = reference emission rate of 1.00E-03 kg/Mg (2.01E-03 lb/ton) of black liquor solids fired for existing kraft or soda recovery furnaces.
- $ER_{ref,LK}$  = reference emission rate of 6.33E-03 kg/Mg (1.27E-02 lb/ton) of CaO produced for existing kraft or soda lime kilns.
- ${
  m CaO_{tot}}={
  m sum \ of \ the \ average \ lime \ production \ rates \ for \ all \ existing \ lime}$  kilns at the kraft or soda pulp mill measured as CaO during the performance test, Mg CaO/d (ton CaO/d).
- $BLS_{tot} =$ sum of average black liquor solids firing rates of all existing recovery furnaces at the kraft or soda pulp mill measured during the performance test, Mg/d (ton/d) of black liquor solids fired.
- ${\rm ER2_{ref,SDT}}={\rm reference\ emission\ rate\ of\ 6.20E-05\ kg/Mg\ (1.24E-04\ lb/ton)}$  of black liquor solids fired for existing kraft or soda smelt dissolving tanks.
- (2) Establish a preliminary emission limit for each kraft or soda recovery furnace  $(C_{EL,RF})$ , smelt dissolving tank  $(C_{EL,SDT})$ , and lime kiln  $(C_{EL,LK})$ ; and, using these emission limits, determine the overall PM or overall PM HAP emission rate for the mill using the procedures in § 63.865(a)(2)(i) through (v), such that the overall PM or overall PM HAP

emission rate calculated in § 63.865(a)(2)(v) is less than or equal to the overall PM or overall PM HAP emission limit determined in § 63.865(a)(1), as appropriate.

(i) The following equation shall be used to determine the PM or PM HAP emission rate from each affected recovery furnace:

$$ER_{RF} = (F1)(C_{EL,RF})(Q_{RF})/(BLS)$$
 Eq. (3)

where:

 $\mathrm{ER}_{\mathrm{RF}} = \mathrm{emission} \ \mathrm{rate} \ \mathrm{from} \ \mathrm{each} \ \mathrm{recovery} \ \mathrm{furnace}, \ \mathrm{kg/Mg} \ (\mathrm{lb/ton}) \ \mathrm{of} \ \mathrm{black}$  liquor solids.

F1 = conversion factor, 1.44 min $\bullet$ kg/d $\bullet$ g (0.206 min $\bullet$ lb/d $\bullet$ gr).

 $C_{EL,RF} = \text{preliminary PM or PM HAP emission limit proposed by owner or}$  operator for the recovery furnace, g/dscm (gr/dscf) corrected to 8 percent oxygen.

 $Q_{RF}$  = average volumetric gas flow rate from the recovery furnace measured during the performance test, dscm/min (dscf/min).

BLS = average black liquor solids firing rate of the recovery furnace measured during the performance test, Mg/d (ton/d) of black liquor solids.

(ii) The following equation shall be used to determine the PM or PM HAP emission rate from each affected smelt dissolving tank:

$$ER_{SDT} = (F1)(C_{EL,SDT})(Q_{SDT})/(BLS)$$
 Eq. (4)

where:

ER<sub>SDT</sub> = emission rate from each SDT, kg/Mg (lb/ton) of black liquor solids fired.

F1 = conversion factor, 1.44 min $\bullet$ kg/d $\bullet$ g (0.206 min $\bullet$ lb/d $\bullet$ gr).

 $Q_{SDT}$  = average volumetric gas flow rate from the smelt dissolving tank measured during the performance test, dscm/min (dscf/min).

BLS = average black liquor solids firing rate of the associated recovery furnace measured during the performance test, Mg/d (ton/d) of black liquor solids fired. If more than one SDT is used to dissolve the smelt from a given recovery furnace, then the black liquor solids firing rate of the furnace shall be proportioned according to the size of the SDT's.

(iii) The following equation shall be used to determine the PM or PM HAP emission rate from each affected lime kiln:

$$ER_{LK} = (F1)(C_{EL,LK})(Q_{LK})(CaO_{tot}/BLS_{tot})/(CaO_{LK})$$

Eq. (5)

where:

 $ER_{LK} = \mbox{ emission rate from each lime kiln, kg/Mg (lb/ton) of black liquor solids.}$ 

 $F1 = conversion \ factor, \ 1.44 \ min•kg/d•g \ (0.206 \ min•lb/d•gr).$ 

 $Q_{LK} =$  average volumetric gas flow rate from the lime kiln measured during the performance test, dscm/min (dscf/min).

- $\text{CaO}_{\text{LK}} = \text{ lime production rate of the lime kiln, measured as CaO during the}$  performance test, Mg/d (ton/d) of CaO.
- $CaO_{tot} = sum of the average lime production rates for all existing lime kilns at the mill measured as CaO during the performance test, Mg/d (ton/d).$
- $BLS_{tot} =$ sum of the average black liquor solids firing rates of all recovery furnaces at the mill measured during the performance test, Mg/d (ton/d) of black liquor solids.
- (iv) If more than one similar process unit is operated at the kraft or soda pulp mill, the following equation shall be used to calculate the overall PM or overall PM HAP emission rate from all similar process units at the mill and shall be used in determining the overall PM or overall PM HAP emission rate for the mill:

$$ER_{PUtot} = ER_{PU1}(PR_{PU1}/PR_{tot}) + \ldots + (ER_{PUi})(PR_{PUi}/PR_{tot})$$

Eq. (6)

where:

- $\mathrm{ER}_{\mathrm{PUtot}} = \mathrm{overall} \ \mathrm{PM} \ \mathrm{or} \ \mathrm{overall} \ \mathrm{PM} \ \mathrm{HAP} \ \mathrm{emission} \ \mathrm{rate} \ \mathrm{from} \ \mathrm{all} \ \mathrm{similar} \ \mathrm{process}$  units, kg/Mg (lb/ton) of black liquor solids fired.
- $ER_{PU1} = PM$  or PM HAP emission rate from process unit No. 1, kg/Mg (lb/ton) of black liquor solids fired, calculated using equation (3), (4), or (5) in paragraphs (a)(2)(i) through (a)(2)(iii) of this section.
- $PR_{PU1} = black$  liquor solids firing rate in Mg/d (ton/d) for process unit No. 1, if process unit is a recovery furnace or SDT. The CaO production rate in Mg/d (ton/d) for process unit No. 1, if process unit is a lime kiln.

 $PR_{tot} = total black liquor solids firing rate in Mg/d (ton/d) for all recovery furnaces at the kraft or soda pulp mill if the similar process units are recovery furnaces or SDT's, or the total CaO production rate in Mg/d (ton/d) for all lime kilns at the mill if the similar process units are lime kilns.$ 

 $ER_{PUi} = PM$  or PM HAP emission rate from process unit No. i, kg/Mg (lb/ton) of black liquor solids fired.

 $PR_{PUi} = black$  liquor solids firing rate in Mg/d (ton/d) for process unit No. i, if process unit is a recovery furnace or SDT. The CaO production rate in Mg/d (ton/d) for process unit No. i, if process unit is a lime kiln.

i = number of similar process units located at the kraft or soda pulp mill.

(v) The following equation shall be used to calculate the overall PM or overall PM HAP emission rate at the mill:

$$ER_{tot} = ER_{RFtot} + ER_{SDTtot} + ER_{LKtot}$$
 Eq. (7)

where:

 $ER_{tot} = overall PM or overall PM HAP emission rate for the mill, kg/Mg$ (lb/ton) of black liquor solids fired.

ER<sub>RFtot</sub> = PM or PM HAP emission rate from all kraft or soda recovery furnaces, calculated using equation (3) or (6) in paragraphs (a)(2)(i) and (a)(2)(iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.

ER<sub>SDTtot</sub> = PM or PM HAP emission rate from all smelt dissolving tanks, calculated using equation (4) or (6) in paragraphs (a)(2)(ii) and

- (a)(2)(iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.
- $ER_{LKtot} = PM$  or PM HAP emission rate from all lime kilns, calculated using equation (5) or (6) in paragraphs (a)(2)(iii) and (a)(2)(iv) of this section, where applicable, kg/Mg (lb/ton) of black liquor solids fired.
- (3) For purposes of determining the volumetric gas flow rate used in this section for each kraft or soda recovery furnace, smelt dissolving tank, and lime kiln, Methods 1 through 4 of appendix A, part 60 of this chapter shall be used.
- (4) Process data measured during the performance test shall be used to determine the black liquor solids firing rate on a dry basis and the CaO production rate.
- (b) The owner or operator seeking to determine compliance with § 63.862(a) shall use the following procedures:
- (1) For purposes of determining the concentration of PM emitted from each kraft or soda recovery furnace, sulfite combustion unit, smelt dissolving tank or lime kiln, Method 5 or 29 in appendix A of part 60 of this chapter shall be used, except that Method 17 in appendix A of part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17, and the stack temperature is no greater than 205°C (400°F). The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). Water shall be used as the cleanup solvent instead of acetone in the sample recovery procedure.
- (i) For sources complying with § 63.862(a)(1) or (2), the PM concentration shall be corrected to the appropriate oxygen concentration using the following equation:

$$C_{corr} = C_{meas} \times (21-X/21-Y)$$
 Eq. (8)

where:

C<sub>corr</sub> = the measured concentration corrected for oxygen, g/dscm (gr/dscf).

C<sub>meas</sub> = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf).

X = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and sulfite combustion units and 10 percent for lime kilns).

Y = the measured average volumetric oxygen concentration.

- (ii) The integrated sampling and analysis procedure of Method 3B shall be used to determine the oxygen concentration. The gas sample shall be taken at the same time and at the same traverse points as the particulate sample.
- (2) For purposes of determining the PM HAP emitted from each kraft or soda recovery furnace, smelt dissolving tank, or lime kiln, Method 29 in appendix A of part 60 of this chapter shall be used. Method 101A in appendix B of part 61 may be used as an alternative to Method 29 for determining mercury emissions. When determining the PM HAP emission rate, all nondetect data, as defined in § 63.861, shall be treated as one-half of the method detection limit. The sampling time and sample volume for each run shall be at least 60 minutes and 1.27 dscm (45 dscf).
- (i) The following equation shall be used to determine the PM HAP emission rate from each recovery furnace:

$$ER_{RF-PMHAP} = (PMHAP_{meas})/(BLS)$$
 Eq. (9)

where:

 $ER_{RF-PMHAP} = PM HAP$  emission rate from each recovery furnace, kg/Mg (lb/ton) of black liquor solids fired.

PMHAP<sub>meas</sub> = measured PM HAP mass emission rate, kg/hr (lb/hr).

BLS = average black liquor solids firing rate, Mg/hr (ton/hr);

determined using process data measured during the performance test.

(ii) The following equation shall be used to determine the PM HAP emission rate from each smelt dissolving tank:

$$ER_{SDT-PMHAP} = (PMHAP_{meas})/(BLS)$$
 Eq. (10)

where:

 $ER_{SDT-PMHAP} = PM HAP$  emission rate from each smelt dissolving tank, kg/Mg (lb/ton) of black liquor solids fired.

PMHAP<sub>meas</sub> = measured PM HAP mass emission rate, kg/hr (lb/hr).

BLS = average black liquor solids firing rate of the associated recovery furnace, Mg/hr (ton/hr); determined using process data measured during the performance test.

(iii) The following equation shall be used to determine the PM HAP emission rate from each lime kiln:

$$ER_{LK-PMHAP} = (PMHAP_{meas})/(CaO)$$
 Eq. (11)

where:

 $ER_{LK-PMHAP} = PM HAP$  emission rate from each lime kiln, kg/Mg (lb/ton) of black liquor solids fired.

 $PMHAP_{meas} = measured PM HAP mass emission rate, kg/hr (lb/hr).$ 

CaO = average lime production rate, Mg/hr (ton/hr); measured as CaO and determined using process data measured during the performance test.

- (c) The owner or operator seeking to determine compliance with the total gaseous organic HAP standard in § 63.862(c)(1) without using an NDCE recovery furnace equipped with a dry ESP system shall use Method 308 in Appendix A of part 63 of this chapter. The sampling time and sample volume for each run shall be at least 60 minutes and 0.014 dscm (0.50 dscf), respectively.
- (1) The following equation shall be used to determine the emission rate from any new NDCE recovery furnace:

$$ER_{NDCE} = (MR_{meas})/(BLS)$$
 Eq. (12)

where:

 ${\rm ER_{NDCE}} = {\rm methanol\ emission\ rate\ from\ the\ NDCE\ recovery\ furnace,\ kg/Mg}$  (lb/ton) of black liquor solids fired.

 $MR_{meas} = measured methanol mass emission rate from the NDCE recovery furnace, kg/hr (lb/hr).$ 

- BLS = average black liquor solids firing rate of the NDCE recovery furnace, Mg/hr (ton/hr); determined using process data measured during the performance test.
- (2) The following equation shall be used to determine the emission rate from any new DCE recovery furnace system:

$$ER_{DCE} = [(MR_{meas,RF})/BLS_{RF}] + [(MR_{meas,BLO})/BLS_{BLO}]$$

where:

 $ER_{DCE}$  = methanol emission rate from each DCE recovery furnace system, kg/Mg (lb/ton) of black liquor solids fired.

 $MR_{meas,RF}$  = average measured methanol mass emission rate from each DCE recovery furnace, kg/hr (lb/hr).

 $MR_{meas,BLO}$  = average measured methanol mass emission rate from the black liquor oxidation system, kg/hr (lb/hr).

 $BLS_{RF}$  = average black liquor solids firing rate for each DCE recovery furnace, Mg/hr (ton/hr); determined using process data measured during the performance test.

 $BLS_{BLO} = \$  the average mass rate of black liquor solids treated in the black liquor oxidation system, Mg/hr (ton/hr); determined using process data measured during the performance test.

(d) The owner or operator seeking to determine compliance with the total gaseous organic HAP standards in § 63.862(c)(2), (standards for semichemical combustion units) shall use Method 25A in appendix A of part 60 of this chapter. The sampling time shall be at least 60 minutes. (1) The following equation shall be used to determine the emission rate from any new or existing semichemical combustion unit:

$$ER_{SCCU} = (THC_{meas})/(BLS)$$
 Eq. (14)

where:

 $ER_{SCCU} = THC$  emission rate from each semichemical combustion unit, kg/Mg (lb/ton) of black liquor solids fired.

THC<sub>meas</sub> = measured THC mass emission rate, kg/hr (lb/hr).

BLS = average black liquor solids firing rate, Mg/hr (ton/hr); determined using process data measured during the performance test.

(2) If the owner or operator of the semichemical combustion unit has selected the percentage reduction standards for THC, under § 63.862(c)(2)(ii) of this subpart, the percentage reduction in THC emissions (%R<sub>THC</sub>) is computed using the following formula, provided that  $E_i$  and  $E_o$  are measured simultaneously:

$$(\& R_{\text{THC}}) = \left(\frac{E_{i} - E_{o}}{E_{i}}\right) \times 100$$
Eq. (15)

where:

 $\%R_{THC}$  = percentage reduction of total hydrocarbons emissions achieved.

 $E_i$  = measured THC mass emission rate at the THC control device inlet, kg/hr (lb/hr).

 $\rm E_o = measured\ THC\ mass\ emission\ rate\ at\ the\ THC\ control\ device\ outlet,$  kg/hr (lb/hr).

- (e) The owner or operator seeking to comply with the continuous parameter monitoring requirements of § 63.864(b)(2) shall continuously monitor each parameter and determine the arithmetic average value of each parameter during each 3-run performance test. Multiple 3-run performance tests may be conducted to establish a range of parameter values.
- (f) The owner or operator of an affected source seeking to demonstrate compliance with the standards in § 63.862 using a control technique other than those listed in § 63.864(a)(1) through (a)(3) shall provide to the Administrator a monitoring plan

that includes a description of the control device, test results verifying the performance of the control device, the appropriate operating parameters that will be monitored, and the frequency of measuring and recording to establish continuous compliance with the standards. The monitoring plan is subject to the Administrator's approval. The owner or operator of the affected source shall install, calibrate, operate, and maintain the monitor(s) in accordance with the monitoring plan approved by the Administrator. The owner or operator shall include in the information submitted to the Administrator proposed performance specifications and quality assurance procedures for their monitors. The Administrator may request further information and shall approve acceptable test methods and procedures.

### § 63.866 Recordkeeping requirements.

- (a) Startup, shutdown, and malfunction plan. The owner or operator shall develop and implement a written plan as described in § 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the standard. In addition to the information required in § 63.6(e) of this part, the plan shall include the requirements in paragraphs (a)(1) and (a)(2) of this section.
- (1) The startup, shutdown, and malfunction plan shall include procedures for responding to any process parameter level that is inconsistent with the level(s) established under § 63.864(b)(2), including:
- (i) Procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and

- (ii) Corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance.
  - (2) The startup, shutdown, and malfunction plan also shall include:
- (i) A maintenance schedule for each control technique that is consistent with,
   but not limited to, the manufacturer's instructions and recommendations for routine and
   long-term maintenance; and
- (ii) An inspection schedule for each continuous monitoring system required under \$63.864 to ensure, at least once in each 24-hour period, that each continuous monitoring system is properly functioning.
- (b) The owner or operator of an affected source shall maintain records of any occurrence when corrective action is required under § 63.864(c)(1), and when a violation is noted under § 63.864(c)(2).
- (c) In addition to the general records required by § 63.10(b)(2) of this part, the owner or operator shall maintain records of the following information:
- (1) Records of black liquor solids firing rates in units of megagrams/day or tons/day for all recovery furnaces and semichemical combustion units;
- (2) Records of CaO production rates in units of megagrams/day or tons/day for all lime kilns;
- (3) Records of parameter monitoring data required under § 63.864, including any period when the operating parameter levels were inconsistent with the levels established

during the initial performance test, with a brief explanation of the cause of the deviation and the corrective action taken;

- (4) Records and documentation of supporting calculations for compliance determinations made under §§ 63.865(a) through (e);
  - (5) Records of monitoring parameter ranges established for each affected source;
- (6) Records certifying that an NDCE recovery furnace equipped with a dry ESP system is used to comply with the total gaseous organic HAP standard in § 63.862(c)(1). § 63.867 Reporting requirements.
- (a) <u>Notifications</u>. The owner or operator of any affected source shall submit the applicable notifications from subpart A of this part, as specified in Table 1 of this subpart.
  - (b) Additional reporting requirements for PM HAP standards.
- (1) Any owner or operator of a group of affected sources at a mill complying with the PM HAP standards in § 63.862(a)(1)(ii) shall submit the PM or PM HAP emission limits determined in § 63.865(a) for each affected kraft or soda recovery furnace, smelt dissolving tank, and lime kiln to the Administrator for approval. The emission limits shall be submitted as part of the notification of compliance status required under subpart A of this part.
- (2) Any owner or operator of an affected source complying with the PM or PM HAP standards in § 63.862(a)(1)(ii) shall submit the calculations and supporting documentation used in § 63.865(a)(1) and (2) to the Administrator as part of the notification of compliance status required under subpart A of this part.

- (3) After the Administrator has approved the emission limits for any affected source, the owner or operator of an affected source must notify the Administrator before any of the following actions are taken:
- (i) The air pollution control system for any affected source is modified or replaced;
- (ii) Any kraft or soda recovery furnace, smelt dissolving tank, or lime kiln at a kraft or soda pulp mill complying with the PM or PM HAP standards in § 63.862(a)(1)(ii) is shut down for more than 60 consecutive days;
- (iii) A continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any affected source is changed; or
- (iv) The black liquor solids firing rate for any kraft or soda recovery furnace during any 24-hour averaging period is increased by more than 10 percent above the level measured during the most recent performance test.
- (4) An owner or operator of a group of affected sources at a mill complying with the PM or PM HAP standards in § 63.862(a)(1)(ii) and seeking to perform the actions in paragraphs (b)(3)(i) or (ii) of this section shall recalculate the overall PM or overall PM HAP emission limit for the group of affected sources and resubmit the documentation required in paragraph (b)(2) of this section to the Administrator. All modified PM and PM HAP emission limits are subject to approval by the Administrator.
- (c) Excess emissions report. The owner or operator shall report quarterly if measured parameters meet any of the conditions specified in § 63.864(c)(1) or (2). This report shall contain the information specified in § 63.10(c) of this part as well as the number and duration of occurrences when the source met or exceeded the conditions in

- § 63.864(c)(1)and the number and duration of occurrences when the source met or exceeded the conditions in § 63.864(c)(2).
- (1) When no exceedances of parameters have occurred, the owner or operator shall submit a semiannual report stating that no excess emissions occurred during the reporting period.
- (2) The owner or operator of an affected source subject to the requirements of this subpart and subpart S of this part may combine excess emission and/or summary reports for the mill.
- § 63.868 Delegation of authority.
- (a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.
- (b) Authorities which will not be delegated to States:

  No authorities are retained by the Administrator.

## TABLE 1 TO SUBPART MM. GENERAL PROVISIONS APPLICABILITY TO SUBPART MM

General		Applies to	
provisions		Applies to subpart	
reference	Summary of requirements	MM	Comments
63.1(a)(1)	General applicability of the General Provisions.	Yes	Additional terms defined in § 63.861; when overlap between subparts A and MM of this part, subpart MM takes precedence.
63.1(a)(2)- (14)		Yes	
63.1(b)(1)	Initial applicability determination.	No	Subpart MM specifies the applicability in § 63.860
63.1(b)(2)	Title V operating permit - see part 70.	Yes	All major affected sources are required to obtain a title V permit.
63.1(b)(3)	Record of the applicability determination.	No	All affected sources are subject to subpart MM according to the applicability definition of subpart MM.
63.1(c)(1)	Applicability of subpart A after a relevant standard has been set.	Yes	Subpart MM clarifies the applicability of each paragraph of subpart A to sources subject to subpart MM.
63.1(c)(2)	Title V permit requirement.	Yes	All major affected sources are required to obtain a title V permit. There are no area sources in the pulp and paper mill source category.
63.1(c)(3)	[Reserved]	NA	
63.1(c)(4)	Requirements for existing source that obtains an extension of compliance.	Yes	
63.1(c)(5)	Notification requirements for an area source that increases HAP emissions to major source levels.	Yes	
63.1(d)	[Reserved]	NA	
63.1(e)	Applicability of permit program before a relevant standard has been set.	Yes	

General provisions		Applies to subpart	
reference	Summary of requirements	MM	Comments
63.2	Definitions.	Yes	Additional terms defined in § 63.861; when overlap between subparts A and MM of this part occurs, subpart MM takes precedence.
63.3	Units and abbreviations.	Yes	
63.4	Prohibited activities and circumvention.	Yes	
63.5(a)	Construction and reconstruction - applicability.	Yes	
63.5(b)(1)	Upon construction, relevant standards for new sources.	Yes	
63.5(b)(2)	[Reserved]	NA	
63.5(b)(3)	New construction/reconstruction.	Yes	
63.5(b)(4)	Construction/reconstruction notification.	Yes	
63.5(b)(5)	Construction/reconstruction compliance.	Yes	
63.5(b)(6)	Equipment addition or process change.	Yes	
63.5(c)	[Reserved]	NA	
63.5(d)	Application for approval of construction/reconstruction.	Yes	
63.5(e)	Construction/reconstruction approval.	Yes	
63.5(f)	Construction/reconstruction approval based on prior State preconstruction review.	Yes	
63.6(a)(1)	Compliance with standards and maintenance requirements - applicability.	Yes	
63.6(a)(2)	Requirements for area source that increases emissions to become major.	Yes	
63.6(b)	Compliance dates for new and reconstructed sources.	Yes	
63.6(c)	Compliance dates for existing sources.	Yes	Subpart MM specifically stipulates the compliance schedule for existing sources.
63.6(d)	[Reserved]	NA	

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General provisions		Applies to subpart	
reference	Summary of requirements	MM	Comments
63.6(e)	Operation and maintenance requirements.	Yes	
63.6(f)	Compliance with nonopacity emission standards.	Yes	
63.6(g)	Compliance with alternative nonopacity emission standards.	Yes	
63.6(h)	Compliance with opacity and visible emission (V.E.) standards	Yes	Subpart MM does not contain any opacity or V.E. standards; however, § 63.864 specifies opacity monitoring requirements.
63.6(i)	Extension of compliance with emission standards.	Yes	
63.6(j)	Exemption from compliance with emission standards.	Yes	
63.7(a)(1)	Performance testing requirements - applicability	Yes	§ 63.864(a)(6) specifies the only exemption from performance testing allowed under subpart MM.
63.7(a)(2)	Performance test dates.	Yes	
63.7(a)(3)	Performance test requests by Administrator under section 114.	Yes	
63.7(b)(1)	Notification of performance test.	Yes	
63.7(b)(2)	Notification of delay in conducting a scheduled performance test.	Yes	
63.7(c)	Quality assurance program.	Yes	
63.7(d)	Performance testing facilities.	Yes	
63.7(e)	Conduct of performance tests.	Yes	
63.7(f)	Use of an alternative test method.	Yes	
63.7(g)	Data analysis, recordkeeping, and reporting.	Yes	
63.7(h)	Waiver of performance tests.	Yes	§ 63.864(a)(6) specifies the only exemption from performance testing allowed under subpart MM.
63.8(a)	Monitoring requirements - applicability.	Yes	See § 63.864
63.8(b)	Conduct of monitoring.	Yes	
63.8(c)	Operation and maintenance of CMS.	Yes	]

General		Applies to	
provisions reference	Summary of requirements	subpart MM	Comments
63.8(d)	Quality control program.	Yes	Comments
63.8(e)(1)	Performance evaluation of CMS.	Yes	
63.8(e)(2)	Notification of performance evaluation.	Yes	
63.8(e)(3)	Submission of site-specific performance evaluation test plan.	Yes	
63.8(e)(4)	Conduct of performance evaluation and performance evaluation dates.	Yes	
63.8(e)(5)	Reporting performance evaluation results.	Yes	
63.8(f)	Use of an alternative monitoring method.	Yes	
63.8(g)	Reduction of monitoring data.	Yes	
63.9(a)	Notification requirements - applicability and general information.	Yes	
63.9(b)	Initial notifications.	Yes	
63.9(c)	Request for extension of compliance.	Yes	
63.9(d)	Notification that source subject to special compliance requirements.	Yes	
63.9(e)	Notification of performance test.	Yes	
63.9(f)	Notification of opacity and V.E. observations.	Yes	Subpart MM does not contain any opacity or V.E standards; however, § 63.864 specifies opacity monitoring requirements.
63.9(g)(1)	Additional notification requirements for sources with CMS.	Yes	
63.9(g)(2)	Notification of compliance with opacity emission standard.	Yes	Subpart MM does not contain any opacity or V.E. emission standards; however, § 63.864 specifies opacity monitoring requirements.
63.9(g)(3)	Notification that criterion to continue use of alternative to relative accuracy testing has been exceeded.	Yes	
63.9(h)	Notification of compliance status.	Yes	
63.9(i)	Adjustment to time periods or postmark deadlines for submittal and review of required communications.	Yes	

General provisions		Applies to subpart	
reference	Summary of requirements	MM	Comments
63.9(j)	Change in information already provided.	Yes	
63.10(a)	Recordkeeping requirements - applicability and general information.	Yes	See § 63.866
63.10(b)(1)	Records retention.	Yes	
63.10(b)(2)	Information and documentation to support notifications and demonstrate compliance.	Yes	
63.10(b)(3)	Records retention for sources not subject to relevant standard.	Yes	Applicability requirements are given in § 63.860.
63.10(c)	Additional recordkeeping requirements for sources with CMS.	Yes	
63.10(d)(1)	General reporting requirements.	Yes	
63.10(d)(2)	Reporting results of performance tests.	Yes	
63.10(d)(3)	Reporting results of opacity or V.E. observations.	Yes	Subpart MM does not include any opacity or visible emission standards; however, § 63.864 specifies opacity monitoring requirements.
63.10(d)(4)	Progress reports.	Yes	
63.10(d)(5)	Periodic and immediate startup, shutdown, and malfunction reports.	Yes	
63.10(e)	Additional reporting requirements for sources with CMS.	Yes	
63.10(f)	Waiver of recordkeeping and reporting requirements.	Yes	
63.11	Control device requirements for flares.	No	The use of flares to meet the standards in subpart MM is not anticipated.
63.12	State authority and delegations.	Yes	
63.13	Addresses of State air pollution control agencies and EPA Regional Offices.	Yes	
63.14	Incorporations by reference.	Yes	
63.15	Availability of information and confidentiality.	Yes	