CHAPTER 7011
MINNESOTA POLLUTION CONTROL AGENCY
STANDARDS FOR STATIONARY SOURCES

7011.0010 APPLICABILITY OF STANDARDS OF PERFORMANCE.

[For text of subps 1 to 3, see M R.]

Subp 4 **Opacity standards.** The opacity standards in an applicable requirement apply at all times except during periods of start-up, shutdown, and malfunction, and as otherwise provided in an applicable requirement or compliance document as defined in parts 7007 0100 and 7017 2005 The exemption for periods of start-up, shutdown, and malfunction applies only if·

A at all times, including periods of start–up, shutdown, or malfunction, the owner or operator, to the extent practicable, maintains and operates the affected emission facility and air pollution control equipment in a manner consistent with good operating practice for the installed equipment design. Determination of whether acceptable operating and maintenance procedures are being used shall be based on, among other information, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source,

B the owner or operator complies with parts 7019 1000 and 7019 2000 in the event of a shutdown, breakdown, or malfunction, and

C the applicable requirement or compliance document does not state that the opacity standard applies during such conditions

Subp 5 **Transition to new opacity averaging method.** All permits issued before July 27, 1998, are amended to reflect the amendments to this chapter adopted on July 27, 1998, that are related to opacity averaging and excursions

Statutory Authority: *MS s 116 07*

History: *23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0060 DEFINITIONS.

[For text of subpart 1, see M R]

Subp 2 **Hood.** "Hood" means a shaped inlet to a pollution control system that does not totally surround emissions from an emissions unit, that is designed to capture and discharge the air emissions through ductwork to control equipment, and that conforms to the design and operating practices recommended in "Industrial Ventilation – A Manual of Recommended Practice, American Conference of Governmental Industrial Hygienists " This document is subject to frequent change A spray booth can be a hood if it meets the definition in this subpart

[For text of subps 3 to 5, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.0065 APPLICABILITY.

Subpart 1 **Applicability.** The owner or operator of a stationary source shall comply with parts 7011 0060 to 7011 0080 if the owner or operator used the control equipment efficiencies for listed control equipment established pursuant to part 7011 0070 to calculate potential to emit, from emissions units that discharge through the listed control equipment, to

A determine what type of permit is required, pursuant to part 7007 0150, subpart 4, item B,

B determine what type of amendment to a part 70 or state permit is required, pursuant to part 7007 1200, except that control efficiencies for control equipment with hoods under part 7011 0070 cannot be used,

C qualify for an insignificant modification under part 7007 1250, or

D qualify for registration permit option D under part 7007 1130

[For text of subp 2, see M R]

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.0070 LISTED CONTROL EQUIPMENT AND CONTROL EQUIPMENT EFFICIENCIES.

Subpart 1 **Listed control equipment efficiencies.** Unless a part 70, state, or general permit specifies a different control efficiency, the owner or operator of a stationary source must at all times attain at least the control efficiency listed in Table A for each piece of listed control equipment at the stationary source The applicable control efficiency for a type of

listed control equipment and a given pollutant is determined by whether air emissions are discharged to the control equipment through a hood or through a total enclosure The control equipment efficiencies in Table A do not apply to any hazardous air pollutant. The owner or operator of a stationary source that is subject to the control efficiencies given for hoods in Table A must evaluate, on a form provided by the commissioner, whether the hood conforms to the design and operating practices recommended in "Industrial Ventilation – A Manual of Recommended Practice, American Conference of Governmental Industrial Hygienists," and must include with the permit application the certification required in subpart 3

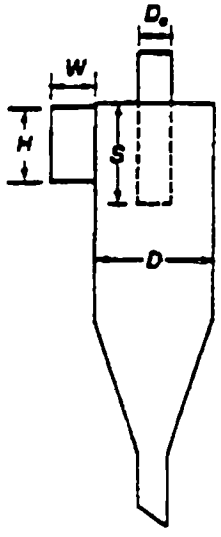
CONTROL EQUIPMENT EFFICIENCY–TABLE A

ID#	CONTROL EQUIPMENT DESCRIPTION	POLLUTANT	CONTROL EFFICIENCY	
			TOTAL	HOOD ENCLOSURE
	PM CONTROL CATEGORY–CYCLONES means a device where airflow is forced to spin in a vortex through a tube			
007	Centrifugal Collector (cyclone)–high efficiency means a cyclonic device with parameters stated in drawing 1 and table 1	PM,PM–10	80%	64%
008	Centrifugal Collector (cyclone)–medium efficiency means a cyclonic device with parameters stated in drawing 1 and table 1	PM,PM–10	50%	40%
009	Centrifugal Collector (cyclone)–low efficiency means a cyclonic device with parameters stated in drawing 1 and table 1	PM,PM–10	10%	8%
076	Multiple Cyclone without Fly Ash Reinjection means a cyclonic device with more than one tube where fly ash is not reinjected	PM,PM–10	80%	NA
077	Multiple Cyclone with Fly Ash Reinjection means. a cyclonic device with more than one tube where fly ash is reinjected	PM,PM–10	50%	NA
085	Wet Cyclone Separator or Cyclonic Scrubbers means a cyclonic device that sprays water into a cyclone	PM,PM–10	50%	40%

012	PM CONTROL CATEGORY–ELECTROSTATIC PRECIPITATORS means a control device in which the incoming particulate matter receives an electrical charge and is then collected on a surface with the opposite electrical charge			
	–assumed efficiency for boiler fly ash control	PM–10	40%	NA
	–assumed efficiency for other applications	PM–10	70%	56%
	PM CONTROL CATEGORY–OTHER CONTROLS			
016	Fabric Filter means a control device in which the incoming gas stream passes through a porous fabric filter forming a dust cake	PM,PM–10	99%	79%
052	Spray Tower means a control device in which the incoming gas stream passes through a chamber in which it contacts a liquid spray	PM,PM–10	20%	16%
053	Venturi Scrubber means a control device in which the incoming gas stream passes through a venturi into which a low pressure liquid is introduced	PM,PM–10	90%	72%
055	Impingement Plate Scrubber means a control device in which the incoming gas stream passes a liquid spray and is then directed at high velocity into a plate	PM,PM–10	25%	20%
058A 058B	HEPA and Wall Filter means a control device in which the exiting gas stream passes through a panel of coarse fibers. Other Wall Filters means removable panels for cleaning and replacement, or liquid curtains for particulate removal that provide little resistance to air flow	PM,PM–10	92%	74%

	VOC CONTROL CATEGORY			
019	Afterburners (thermal or catalytic oxidation) means a device used to reduce VOCs to the products of combustion through thermal (high temperature) oxidation or catalytic (use of a catalyst) oxidation in a combustion chamber	VOC	95%	57%
023	Flaring or Direct Combustor means a device in which air, combustible organic waste gases, and supplementary fuel (if needed) react in the flame zone (e g , at the flare tip) to destroy the VOCs	VOC	98%	59%

Drawing 1



SOURCE Lapple. 1951

Table 1
Cyclone Type

Ratio Dimensions	High Efficiency	Medium Efficiency	Low Efficiency
Height of inlet, H/D	≤0 44	>0 44 and <0 8	≥0 8
Width of inlet, W/D	≤0 2	>0 2 and <0 375	≥0 375

Diameter of gas exit, D_e/D	≤0 4	>0 4 and <0 75	≥0 75
Length of vortex finder, S/D	≤0 5	>0 5 and <0 875	≥0 875

If one or more of the "ratio dimensions," as listed in table 1, are in a different efficiency category (high, medium, low), then the lowest efficiency category shall be applied

[For text of subps 2 and 3, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.0075 CONTROL EQUIPMENT GENERAL REQUIREMENTS.

[For text of subps 1 to 4, see M R]

Subp 5 **Deviation of listed control equipment from operating specifications.** The owner or operator of a stationary source shall report to the commissioner in accordance with the deadlines in part 7007 0800, subpart 6, item A, subitem (2), any recorded reading outside the specification or range of specification allowed by subpart 1 of any monitored operating parameter required by part 7011 0080, except that owners or operators with a registration permit option D to which parts 7011 0060 to 7011 0080 apply shall make this report only if a deviation occurred in the reporting period

[For text of subps 6 and 7, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.0105 VISIBLE EMISSION RESTRICTIONS FOR EXISTING FACILITIES.

No owner or operator of an existing emission facility to which parts 7011.0100 to 7011 0115 are applicable shall cause to be discharged into the atmosphere from the facility any gases which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 33 percent opacity. An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 33 percent For the purposes of this part, "existing emission facility" means an emission facility on which construction, modification, or reconstruction did not commence after January 31, 1977

Statutory Authority: *MS s 116 07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1 1999

7011.0110 VISIBLE EMISSION RESTRICTIONS FOR NEW FACILITIES.

No owner or operator of a new emission facility to which parts 7011 0100 to 7011 0115 are applicable shall cause to be discharged into the atmosphere from the facility any gases which exhibit greater than 20 percent opacity For the purposes of this part, "new emission facility" means an emission facility on which construction, modification, or reconstruction commenced after January 31, 1977

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.0400 [Repealed, 22 SR 1237]

7011.0405 [Repealed, 22 SR 1237]

7011.0410 [Repealed, 22 SR 1237]

7011.0510 STANDARDS OF PERFORMANCE FOR EXISTING INDIRECT HEATING EQUIPMENT.

Subpart 1 **Particulate matter and sulfur dioxide.** No owner or operator of existing indirect heating equipment shall cause to be discharged into the atmosphere from said equipment any gases which contain particulate matter or sulfur dioxide in excess of the standards of performance shown in part 7011 0545

Subp 2 **Opacity.** No owner or operator of existing indirect heating equipment shall cause to be discharged into the atmosphere from said equipment any gases which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent

Subp 3 **Definition.** For the purposes of this part and part 7011 0545, "existing indirect heating equipment" means indirect heating equipment on which construction, modification, or reconstruction did not commence after January 31, 1977

Statutory Authority: *MS s 116 07*

History: *22 SR 1237; 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to subpart 2 of this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0515 STANDARDS OF PERFORMANCE FOR NEW INDIRECT HEATING EQUIPMENT.

[For text of subpart 1, see M R]

Subp 2 **Opacity.** No owner or operator of new indirect heating equipment of greater than 250 million Btu per hour rated heat input shall cause to be discharged into the atmosphere from said equipment any gases which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 27 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 27 percent

No owner or operator of new indirect heating equipment of 250 million Btu per hour or less rated heat input shall cause to be discharged into the atmosphere from said equipment any gases which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent

Subp 3. **Definition.** For the purposes of this part and part 7011 0550, "new indirect heating equipment" means indirect heating equipment on which construction, modification, or reconstruction commenced after January 31, 1977

Statutory Authority: *MS s 116 07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to subpart 2 of this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0535 PERFORMANCE TEST PROCEDURES.

[For text of subps 1 to 6, see M R.]

Subp 7 **Nanograms.** For each performance test, the emissions expressed in nanograms/joule (lb/million Btu) shall be determined by the following procedure.

$$E = CF \left(\frac{20\ 90}{20\ 9 - \%O_2} \right)$$

where

[For text of items A to C, see M R]

D The owner or operator may use either subitem (1) or (2) to determine the value of F F = factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted

(1) Values of F are given as follows

(a) for anthracitic coal according to A S T.M. D388–66, $F = 2\ 723 \times 10^{-7}$ dscm/J (10140 dscf/10^6 Btu),

(b) for subbituminous and bituminous coal according to A S T.M D388–66, $F = 2\ 637 \times 10^{-7}$ dscm/J (9820 dscf/10^6 Btu),

(c) for liquid fossil fuels including crude, residual, and distillate oils, $F = 2.476 \times 10^{-7}$ dscm/J (9220 dscf/10^6 Btu), and

(d) for gaseous fossil fuels including natural gas, propane, and butane, $F = 2\ 347 \times 10^{-7}$ dscm/J (8740 dscf/10^6 Btu)

(2) An owner or operator may use the following equation to determine an F factor (dscf/10^6 Btu)

$$F = \frac{10^6[3\ 64(\%H) + 1\ 53(\%C) + 0\ 57(\%S) + 0\ 14(\%N) - 0\ 46(\%O)]}{GVH}$$

where

(a) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined by ultimate analysis of the fuel fired, dry basis, using A S T M methods D3168–74 or D3176 (solid fuels) or D240–64(73) (liquid fuels) or computed from results using A.S T M method D1137–53(70), D1945–64(73) or D1946–67(72) (gaseous fuels) as applicable, and

(b) GHV is the gross heating value (Btu/lb dry basis),

E. When combinations of fuels are fired, the F factors determined by item C or D shall be prorated in accordance with the following formula.

$$F = \frac{xF_1 + yF_2 + zF_3}{100}$$

where

x = the percentage of total heat input derived from gaseous fossil fuel,

y = the percentage of total heat input derived from liquid fossil fuel;

z = the percentage of total heat input derived from solid fossil fuel,

F_1 = the value of F for gaseous fossil fuels according to item D or E,

F_2 = the value of F for liquid fossil fuels according to item D or E, and

F_3 = the value of F for solid fossil fuels according to item D or E,

F When combinations of fossil fuels are fired, the actual heat input, expressed in cal/hr (Btu/hr), shall be determined during each testing period. The rate of fuels burned during each testing period shall be determined by suitable methods and shall be confirmed by a material balance over the indirect heating system

[For text of subps 8 and 9, see M.R]

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.0551 RECORDKEEPING AND REPORTING FOR INDIRECT HEATING UNITS COMBUSTING SOLID WASTE.

Subpart 1 **Application.** The owner or operator of indirect heating equipment combusting mixed municipal solid waste or refuse–derived fuel which makes up 30 percent or less by weight of total fuel input, as determined by subpart 2, shall comply with the conditions of

Minnesota Statutes, section 116 90, and the conditions of this part If the unit combusts more than 30 percent of mixed municipal solid waste or refuse–derived fuel, parts 7011 1201 to 7011 1290 apply

Subp 2 **Calculation.** The fuel feed stream composition calculation shall be the ratio of the weights of mixed municipal solid waste and refuse–derived fuel to mixed municipal solid waste, refuse–derived fuel, and all other fuels delivered to the combustion chamber The calculation shall be made for each 24–hour period that the equipment is operated

Subp 3 **Log.** The owner or operator shall maintain an operating log where the date, weights of mixed municipal solid waste and refuse–derived fuel combusted, weight of each other fuel combusted, and the result of the calculation made in subpart 2 is recorded daily.

Subp 4 **Report.** The owner or operator shall submit to the commissioner a quarterly report containing the date, weights of mixed municipal solid waste and refuse–derived fuel, and the weight of each other fuel combusted during the quarter The reports shall be submitted within 30 days following December 30, March 30, June 30, and September 30 of each year

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.0610 STANDARDS OF PERFORMANCE FOR FOSSIL–FUEL–BURNING DIRECT HEATING EQUIPMENT.

Subpart 1 **Particulate limitations.** Particulate limitations

A No owner or operator of any direct heating equipment shall cause to be discharged into the atmosphere from the direct heatmg equipment any gases which

(1) contain particulate matter in excess of the limits allowed by parts 7011 0700 to 7011 0735, or

(2) exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent

[For text of item B, see M R.]

[For text of subp 2, see M R]

Statutory Authority: *MS s 116 07*

History: *23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0620 PERFORMANCE TEST PROCEDURES.

[For text of subps 1 to 5, see M R]

Subp 6 **Sulfur dioxide emissions.** For each performance test for sulfur dioxide emissions, the emissions expressed m g/million cal (lb/million Btu) shall be determined by the following procedure if the actual heat input is used

$$E = CF \left[\frac{20.90}{20\,9 - \%O_2} \right]$$

where

[For text of items A to C, see M R]

D The owner or operator may use either subitem (1) or (2) to determine the value of F F = factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted

(1) Values of F are given as follows

(a) for anthracitic coal according to A S T M D388–66, F = 0 01139 dscm/10^4 cal (101 4 dscf/10^4 Btu),

(b) for subbituminous and bituminous coal according to A S T M D388–66, F = 0.01103 dscm/10^4 cal (98 2 dscf/10^4 Btu),

(c) for liquid fossil fuels including crude, residual, and distillate oils, F = 0 01036 dscm/10^4 cal (92 2 dscf/10^4 Btu), and

(d) for gaseous fossil fuels including natural gas, propane, and butane, F = 0.00982 dscm/10^4 cal (87 4 dscf/10 ^{4} BTU)

(2) An owner or operator may use the following equation to determine an F factor (dscf/10^4 Btu)

$$F = \frac{10^6\ 3\ 64(\%H) + 1\ 53(\%C) + 0\ 57(\%S) + 0\ 14(\%N) - 0\ 46(\%)}{GVH}$$

where

(a) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined by ultimate analysis of the fuel fired, dry basis, using A.S.T M methods D3178–74 or D3176 (solid fuels) or D240–64(73) (liquid fuels) or computed from results using A.S T.M method D1137–53(70), D1945–64(73) or D1946–67(72) (gaseous fuels) as applicable, and

(b) GHV is the gross heating value

E When combinations of fuels are fired, the F factors determined by item D or E shall be prorated in accordance with the following formula

$$F = \frac{xF_1 + yF_2 + zF_3}{100}$$

where.

x = the percentage of total heat input derived from gaseous fossil fuel,

y = the percentage of total heat input derived from liquid fossil fuel,

z = the percentage of total heat input derived from solid fossil fuel,

F_1 = the value of F for gaseous fossil fuels accordmg to item D or E,

F_2 = the value of F for liquid fossil fuels according to item D or E,

F_3 = the value of F for solid fossil fuels accordmg to item D or E

F When combinations of fossil fuels are fired, the actual heat input, expressed in cal/hr (Btu/hr), shall be determined during each testing period The rate of fuels burned durmg each testing period shall be determined by suitable methods and shall be confirmed by a material balance over the direct heating system.

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.0625 RECORDKEEPING AND REPORTING FOR DIRECT HEATING UNITS COMBUSTING SOLID WASTE.

Subpart 1 **Application.** The owner or operator of direct heating equipment combusting mixed municipal solid waste or refuse–derived fuel which makes up 30 percent or less by weight of total fuel weight input, as determined by subpart 2, shall comply with the conditions of Minnesota Statutes, section 116 90, and subparts 3 and 4 If the unit combusts more than 30 percent of mixed municipal solid waste or refuse–derived fuel, parts 7011 1201 to 7011.1290 apply

Subp 2. **Calculation.** The fuel feed stream composition calculation shall be the ratio of the weights of mixed municipal solid waste and refuse–derived fuel to mixed municipal solid waste, refuse–derived fuel, and all other fuels delivered to the combustion chamber The calculation shall be made for each 24–hour period that the equipment is operated

Subp 3 **Log.** The owner or operator shall maintain an operating log where the date, weight of mixed municipal solid waste and refuse–derived fuel, weight of each other fuel combusted, and the result of the calculation made in subpart 2 is recorded daily

Subp 4 **Reports.** The owner or operator shall submit to the commissioner a quarterly report containing the date, weight of mixed municipal solid waste and refuse–derived fuel, and weight of each other fuel combusted during the quarter The reports shall be submitted within 30 days following December 30, March 30, June 30, and September 30 of each year

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.0710 STANDARDS OF PERFORMANCE FOR PRE–1969 INDUSTRIAL PROCESS EQUIPMENT.

Subpart 1 **Prohibited discharge of gases.** No owner or operator of any industrial process equipment which was in operation before July 9, 1969, shall cause to be discharged into the atmosphere from the industrial process equipment any gases which

[For text of item A, see M R]

B exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent.

[For text of subps 2 and 3, see M R]

Statutory Authority: *MS s 116 07*

History: *23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0805 STANDARDS OF PERFORMANCE FOR EXISTING PORTLAND CEMENT PLANTS.

No owner or operator of an existing portland cement plant shall cause or allow the discharge into the atmosphere of any gases which

A contain particulate matter in excess of the limits established by parts 7011 0700 to 7011 0735, or

B exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 47 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 47 percent

The requirements of this part are applicable to the kiln, the clinker cooler, the raw mill system, the raw mill dryer, raw material storage, the finish mill system, clinker storage, finished product storage, conveyor transfer points, and bagging and bulk loading and unloading systems

For the purposes of this part, "existing portland cement plant" means a portland cement plant on which construction, modification, or reconstruction did not commence after August 17, 1971

Statutory Authority: *MS s 116.07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.0850 DEFINITIONS.

Subpart 1 **Scope.** The definitions in this part apply to the terms used in parts 7011.0850 to 7011 0860. The definitions in parts 7005 0100, 7007 0100, and 7011 0060 apply to the terms used in parts 7011 0850 to 7011.0860, unless the terms are otherwise defined in this part

Subp 2 **Aggregate.** "Aggregate" means any combination of sand, gravel, and crushed stone or other material serving a similar purpose in their natural or processed state

Subp 3 **Cementitious material.** "Cementitious material" means a powdered substance which consists of any combination of the following:

A material manufactured from calcined carbonate rock (burned lime) and clay,

B. fly ash generated from coal burning that meets the requirements outlined in ASTM C 618–96, as found in the Annual Book of American Society for Testing and Materials Standards (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, volume 4.02 (1996). This document is incorporated by reference and is subject to frequent change It is available through the Minitex interlibrary loan system,

C pulverized blast furnace slag, or

D. any other similar fine substance that, when mixed with water, forms a cohesive, adhesive material that will harden into a rigid substance

Subp 4. **Concrete.** "Concrete" means a material consisting of a coarse and fine aggregate bound by a paste of cementitious material and water, with admixtures added to achieve various properties, which then sets into a hard and rigid substance

Subp. 5. **Concrete manufacturing plant.** "Concrete manufacturing plant" means a facility that manufactures concrete, both hardened and unhardened, for sale

Subp 6 **Fabric filter.** "Fabric filter" means a control device in which the incoming gas stream passes through a porous filter forming a dust cake

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0852 STANDARDS OF PERFORMANCE FOR CONCRETE MANUFACTURING PLANTS.

No owner or operator of a concrete manufacturing plant shall cause to be discharged into the atmosphere from the concrete manufacturing plant any emissions which:

A contain particulate matter in excess of the limits allowed by parts 7011 0700 to 7011 0735, or

B exhibit greater than 20 percent opacity

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0854 CONCRETE MANUFACTURING PLANT CONTROL EQUIPMENT REQUIREMENTS.

Subpart 1. **Operation of concrete manufacturing plant control equipment.** Unless otherwise allowed in a state or part 70 permit, emissions during cementitious material receiving from cement silos and other cementitious material storage devices shall pass through a fabric filter. For concrete manufacturing plants in operation on December 2, 1998, the owner or operator must install control equipment no later than December 2, 1999 For concrete manufacturing plants not in operation on December 2, 1998, the control equipment must be installed prior to operation of any concrete manufacturing plant

Subp. 2 **Operation and maintenance of fabric filter control equipment.** The owner or operator of a concrete manufacturing plant shall perform the following on each piece of control equipment required in subpart 1

A properly operate and maintain the control equipment to function as it was designed Proper operation and maintenance includes effective performance, adequate funding, and adequate operator staffing and training;

B thoroughly conduct an internal and external inspection of control equipment at least annually, which often requires shutting down temporarily, and maintain a record of the activities conducted in the inspection including the activities completed, the date the activity was completed, and any corrective action taken, and

C maintain a record of parts replaced, repaired, or modified.

Subp 3 **Monitoring of fabric filter control equipment.** During cementitious material receiving, the owner or operator of a concrete manufacturing plant, or a designee, shall observe the outlet of each piece of control equipment required in subpart 1 for any visible emissions once each day cementitious material is received, and record the date and time period

during which the observation was made and whether or not any visible emissions were observed If visible emissions are observed, the owner or operator, or a designee, shall take all practical steps to modify operations to reduce the emissions and shall take corrective action to eliminate visible emissions prior to the following business day The commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants

Subp 4 **Record retention.** The owner or operator shall maintain the records required by this part for a minimum of five years from the date the record was made The owner or operator shall maintain records for the current calendar year of operation at the concrete manufacturing plant For all years prior to the current calendar year, the owner or operator shall maintain records at either the concrete manufacturing plant or at an office of the owner or operator of the concrete manufacturing plant

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0857 PREVENTING PARTICULATE MATTER FROM BECOMING AIRBORNE.

No owner or operator of a concrete manufacturing plant shall cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne from a concrete manufacturing plant

No owner or operator of a concrete manufacturing plant shall cause or permit a building or its appurtenances, a road, a driveway, or an open area to be constructed, used, repaired, or demolished without applymg all such reasonable measures as may be required to prevent particulate matter from becoming airborne The owner or operator of a concrete manufacturing plant shall take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate The commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne mcluding, but not limited to, application of water, application of commercially available dust suppressants, paving, frequent cleaning and sweeping of roads, driveways, and parking lots, use of curtains or socks for truck loading operations; use of water sprays during truck loading operations, use of water or commercially available dust suppressants on stockpiles or aggregate transfer points, and the planting and maintenance of vegetative ground cover

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0858 NOISE.

The owner or operator of a concrete manufacturing plant shall comply with the noise pollution control rules in chapter 7030

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0859 SHUTDOWN AND BREAKDOWN PROCEDURES.

In the event of a shutdown or breakdown of process or control equipment that causes any increase in emissions of any regulated air pollutant, the owner or operator of a stationary source shall comply with the notification, operation changes, and all other requirements in part 7019 1000

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0860 NO PERMIT REQUIRED.

Subpart 1 **Criteria.** Any owner or operator of a concrete manufacturing plant otherwise required to obtam a permit under part 7007 0200 or 7007 0250 may elect not to obtain a permit under part 7007 0200 or 7007 0250 provided the conditions in items A to D are met.

A Production shall be limited to less than 300,000 tons of unhardened concrete in any calendar year for owners or operators that elect not to receive emissions reduction credit

for road dust control Production shall be limited to less than 360,000 tons of unhardened concrete in any calendar year for owners or operators that elect to receive credit for road dust control on unpaved roads by

(1) recordmg the date and time of the road dust control action and the initials of the person making the record,

(2) recording the amount of water or dust suppressant applied, and

(3) if a commercially available dust suppressant is used, applying it in accordance with the manufacturer's guidelines

B The concrete manufacturing plant shall contain only the following emission units and activities

(1) storage piles, aggregate transfer, cementitious material transfer, weigh hopper loading, mixers, mixer loading; truck loadmg, block forming equipment; mobile vehicle sources such as trucks, front end loaders, and forklifts, and aggregate heaters used solely to improve the flowability of aggregate used in manufacturing concrete burning only natural gas, propane, and/or No 1 or No. 2 fuel oil,

(2) individual indirect heating equipment, as defined in part 7011 0500, subpart 9, with a rated heat input capacity less than 10,000,000 Btu per hour burning only natural gas, propane, and/or No 1 or No 2 fuel oil,

(3) nonmobile internal combustion engines, such as emergency generators, burning less than 37,500 gallons per calendar year of gasoline, No 1 fuel oil, or No 2 fuel oil combined, or

(4) miscellaneous:

(a) total usage or purchase of less than 500 gallons of VOC–containing material or 200 gallons of VOC, including hazardous air pollutant–containing VOC, combined in any calendar year from sources such as parts washers, form release agents, painting, and sealers Under this unit, if the owner or operator ships VOC off site for recycling, the amount recycled may be subtracted from the amount of VOC purchased or used "Recycling" means the reclamation or reuse, as defmed in part 7045 0020, of a VOC If the owner or operator ships VOC off site for recycling, the owner or operator shall keep records of the amount of material shipped off site for recycling and the calculations done to determine the amount to subtract. Records may be material safety data sheets, invoices, shipping papers, or hazardous waste manifests, or

(b) any of the insignificant activities listed in part 7007.1300, subpart 2 or 3.

C The concrete manufacturing plant may not be located in areas designated as nonattainment for PM_{10}.

D Crushing operations may be located at the concrete manufacturing plant site and shall not be considered part of the concrete manufacturing plant unless more than 50 percent of the material processed by the crusher or crushers is used by the concrete manufacturing plant in the manufacture of concrete The owner or operator of the crusher and associated operations shall obtain an air emissions permit for the crusher or crushers and associated operations if they are described under part 7007 0200 or 7007 0250

Subp 2 **Recordkeeping.** The owner or operator of a concrete manufacturing plant shall comply with the recordkeeping listed in items A to D The owner or operator shall maintain the records required by this subpart at the concrete manufacturing plant for a minimum of five years from the date the record was made. The owner or operator shall maintain records for the current calendar year of operation at the concrete manufacturing plant. For all years prior to the current calendar year, the owner or operator shall maintain records at either the concrete manufacturing plant or at an office of the owner or operator of the concrete manufacturing plant

A. The owner or operator shall maintain records of the calendar year production of unhardened concrete m tons to demonstrate compliance with subpart 1, item A

B The owner or operator shall maintain records of the gallons of VOC–contaimng materials, mcludmg hazardous air pollutant–containing VOC, used or purchased in each calendar year to demonstrate compliance with subpart 1, item B, subitem (4), unit (a), or records to demonstrate compliance with part 7007 1300, subpart 3, item H, subitem (1)

C The owner or operator shall maintain records of the types of fuel combusted in nonmobile emissions units in each calendar year to demonstrate compliance with subpart 1, item B, subitems (1) to (3), and maintain records of the amounts of fuel combusted in nonmobile internal combustion engines to demonstrate compliance with subpart 1, item B, subitem (3)

D If the owner or operator elects to receive emissions reduction credit for road dust control, the owner or operator shall maintain records to demonstrate compliance with subpart 1, item A, subitems (1) and (2)

Subp 3. **Grounds for ineligibility.** The following constitute grounds for the agency to require a company to apply for a permit under part 7007 0200 or 7007 0250

A the owner or operator fails to meet or comply with any of the conditions or requirements in subpart 1 or 2,

B there exists at the concrete manufacturing plant unresolved noncompliance with applicable state or federal pollution control statutes or rules administered by the agency or conditions of a previous or existing air emission permit, and the owner or operator will not undertake a schedule of compliance to resolve the noncompliance,

C an owner or operator has knowingly submitted false or misleading information to the agency,

D the unpermitted facility or activity would endanger human health or the environment,

E. if air quality specific conditions or limits not contained in parts 7011 0850 to 7011 0860 were assumed

(1) as a mitigation measure in an environmental impact statement, or

(2) in obtaining a negative declaration in an environmental assessment worksheet, or

F. if the concrete manufacturing plant is subject to a new source performance standard other than Code of Federal Regulations, title 40, part 60, subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced after July 23, 1984, incorporated by reference in part 7011 1520, item C, if all storage vessels subject to this standard at the stationary source each have a capacity greater than or equal to 40 cubic meters and less than 75 cubic meters

Subp. 4 **Permit requirement procedures.** If the agency requires a concrete manufacturing plant to apply for a permit under subpart 3, the agency shall give notice to the owner or operator of its intention to require a permit application This notice shall require the owner or operator to submit a permit application for the concrete manufacturing plant within three months of the receipt of the notice.

Statutory Authority: *MS s 116 07*

History: *23 SR 1241*

7011.0917 ASPHALT PLANT CONTROL EQUIPMENT REQUIREMENTS.

[For text of subps 1 to 5, see M R]

Subp 6 **Deviation of asphalt plant control equipment from operating specifications.** Unless otherwise specified in a part 70, state, or general permit, the owner or operator of a stationary source shall report to the commissioner any recorded reading outside of the specification or range of specifications allowed by subpart 1 from any monitored operating parameter required by subpart 7, in accordance with the deadlines in part 7007 0800, subpart 6, item A, subitem (2), except that owners and operators with a registration permit option D shall make this report only if a deviation occurred in the reporting period

[For text of subp 7, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.1105 STANDARDS OF PERFORMANCE FOR CERTAIN COAL HANDLING FACILITIES.

The owner or operator of any new coal handling facility, or an existing coal handling facility located within the Minneapolis–Saint Paul Air Quality Control Region or within the

boundaries of the city of Duluth, shall perform the following abatement measures unless otherwise exempt by portions of these parts

[For text of items A to I, see M.R.]

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.1110 STANDARDS OF PERFORMANCE FOR EXISTING OUTSTATE COAL HANDLING FACILITIES.

The owner or operator of an existing coal handling facility which is located outside the Minneapolis–Saint Paul Air Quality Control Region and outside the boundaries of the city of Duluth shall comply with part 7011.0150 for the control of fugitive particulate emissions. For the purposes of this part, "existing coal handling facility" means a coal handling facility on which construction, modification, or reconstruction did not commence after November 17, 1980.

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.1201 DEFINITIONS.

Subpart 1. **Scope.** As used in parts 7007.0200, 7007.0250, 7007.0501, 7007.0801, and 7011.1201 to 7011.1290 the following words have the meanings defined in this part.

Subp. 1a. **Statutes and other rules.** The definitions in Minnesota Statutes, section 116.06, and in part 7001.0010 and chapters 7005, 7007, 7009, 7011, 7017, and 7019 apply to terms in parts 7011.1201 to 7011.1290, unless the terms are specifically otherwise defined in this part.

[For text of subps 5 and 6, see M.R.]

Subp. 7. [Repealed, 22 SR 1975]

[For text of subp 8, see M.R.]

Subp. 9. **Class A waste combustor.** "Class A waste combustor" means that the design capacity for a waste combustor unit is 93.75 x 10^6 Btu/hr or more, the waste combustor units combust primarily mixed municipal solid waste or RDF, and construction of the waste combustor was commenced on or before September 20, 1994.

Subp. 10. [Repealed, 22 SR 1975]

Subp. 11. **Class C waste combustor.** "Class C waste combustor" means that the total of the design capacities for all waste combustor units at a stationary source is 15 x 10^6 Btu/hr or more and less than 93.75 x 10^6 Btu/hr, the waste combustor units combust primarily mixed municipal solid waste or RDF, and construction of the waste combustor was commenced on or before September 20, 1994.

[For text of subp 12, see M.R.]

Subp. 13. **Class I waste combustor.** "Class I waste combustor" means that the design capacity for a waste combustor unit is 93.75 x 10^6 Btu/hr or more, and that construction of the unit is commenced after September 20, 1994, or modification or reconstruction is commenced after June 19, 1996.

Subp. 14. **Class II waste combustor.** "Class II waste combustor" means that the design capacity for a waste combustor unit is 15 x 10^6 Btu/hr or more and less than 93.75 x 10^6 Btu/hr, and that construction of the unit is commenced after September 20, 1994, or modification or reconstruction is commenced after June 19, 1996.

[For text of subps 15 and 16, see M.R.]

Subp. 17. **Cofired unit.** "Cofired unit" means an emissions unit which combusts mixed municipal solid waste or RDF with a fuel that is not mixed municipal solid waste or RDF and 30 percent or less by weight of the total fuel input is comprised in aggregate of mixed municipal solid waste or RDF as measured on a 24–hour basis. The fuel feed stream composition calculation shall be the ratio of the weights of mixed municipal solid waste and RDF to mixed municipal solid waste, RDF, and all other fuels delivered to the combustion chamber.

[For text of subps 18 to 20, see M.R.]

Subp. 21. **Energy recovery facility.** "Energy recovery facility" means an emissions unit or emission facility used to capture the heat value of solid waste for conversion to steam,

electricity, or immediate heat value by direct combustion or by burning an intermediate fuel product derived from solid waste For the purposes of parts 7011 1201 to 7011 1290, this definition does not include landfill facilities that recover methane gases, or facilities processing solid waste to convert the solid waste to an intermediate fuel product

[For text of subps 22 to 29, see M R]

Subp 30 **Initial start–up.** "Initial start–up" means the date on which solid waste is first fired in a new, modified, retrofitted, or reconstructed emissions unit

[For text of subp 31, see M R]

Subp 32 **Maximum demonstrated capacity.** For waste combustors with heat recovery, "maximum demonstrated capacity" means the maximum four–hour integrated average load for each waste combustor unit achieved during four consecutive hours during the most recent test during which compliance with the PCDD/PCDF limit in part 7011 1225 is achieved, as measured by steam flow or alternative method as approved by the commissioner For waste combustors without heat recovery, "maximum demonstrated capacity" means the maximum four–hour arithmetic average input rate for each waste combustor unit achieved during the most recent test during which compliance with the PCDD/PCDF limit was achieved If PCDD/PCDF testmg is not required to be conducted, the maximum demonstrated capacity is the capacity achieved during the conduct of the most recent test for which compliance with particulate matter standards and carbon monoxide in part 7011 1225 is demonstrated

[For text of subps 33 and 34, see M.R]

Subp 34a. **Modification or modified municipal waste combustor unit.** "Modification" or "modified municipal waste combustor unit" means a municipal waste combustor unit to which changes have been made after June 19, 1996, if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111 of the Clean Air Act. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100 percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions

[For text of subp 35, see M R]

Subp 36 **Normal start–up.** "Normal start–up" means the period of time between the initial start–up of a new, modified, retrofitted, or reconstructed emissions unit of a waste combustor, or emissions unit of a waste combustor that is modified, retrofitted, or reconstructed to meet the requirements of parts 7011 1201 to 7011 1290, and the lesser of 60 days after achieving the maximum production rate at which the emissions unit will operate or 180 days after initial start–up

If no modification, retrofit, or reconstruction of a Class D or IV waste combustor is necessary to meet the requirements of parts 7011 1201 to 7011 1290, then normal start–up means the period of time between June 20, 1994, and the applicable date in part 7011 1215, subpart 6.

If no modification, retrofit, or reconstruction of a Class A or C waste combustor is necessary to meet the requirements of parts 7011 1201 to 7011.1290, then normal start–up means the period of time between May 18, 1998, and the date by which the waste combustor must demonstrate compliance with waste combustor emission standards of part 7011 1225, as allowed in part 7011 1215, subparts 5 and 5a

Subp 36a **One–hour average.** "One–hour average" means the arithmetic mean of all the individual data points collected by a monitor in an hour Each hourly average begins at the top of the hour and ends at the top of the succeeding hour

[For text of subps 37 to 42, see M R]

Subp 42a **Reconstruction.** "Reconstruction" means rebuilding a municipal waste combustor unit for which the reconstruction commenced after June 19, 1996, and the cumu-

lative costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with the construction or installation) updated to current costs (current dollars).

[For text of subp 43, see M.R.]

Subp 43a **Retrofit.** "Retrofit" means the installation of air pollution control, combustion, or monitoring equipment to a waste combustor for purposes of reducing air pollution emissions. If installing air pollution control equipment, combustion equipment, or monitoring equipment would be a modification as defined in subpart 34a, or reconstruction as defined in subpart 42a, then the activity is not a retrofit.

[For text of subps 44 and 45, see M R]

Subp 45a **Tires.** "Tires" has the meaning given in Minnesota Statutes, section 115A 90, subdivision 7

Subp 46 **Waste combustor.** "Waste combustor" means any emissions unit or emission facility where mixed municipal solid waste, solid waste, or refuse–derived fuel is combusted, and includes incinerators, energy recovery facilities, or other combustion devices A metals recovery incinerator is a waste combustor A combustion device combusting primarily wood, or at least 70 percent fossil fuel and wood in combination with up to 30 percent papermill wastewater treatment plant sludge, is not a waste combustor A soil treatment facility, paint burn–off oven, wood heater, or residential fireplace is not a waste combustor.

Subp 47 [Repealed, 22 SR 1975]

[For text of subps 48 to 50, see M.R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1205 INCORPORATIONS BY REFERENCE.

For the purpose of parts 7007 0501, 7007 0801, and 7011 1201 to 7011 1290, the documents in items A to C are incorporated by reference These documents are subject to frequent change.

[For text of items A and B, see M R]

C The following material is available from the American Society of Mechanical Engineers (ASME), 345 East 47th Street, New York, New York 10017 or from the State Law Library, Judicial Center, 25 Constitution Avenue, Saint Paul, Minnesota 55155

(1) Standards for the Qualification and Certification of Resource Recovery Facility Operators, ASME QRO–1–1994, May 1994

[For text of subitems (2) and (3), see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1210 NOTIFICATION REQUIRED OF CLASS IV WASTE COMBUSTORS.

[For text of subpart 1, see M R]

Subp. 2 **Waste combustors at hospitals.** The owner or operator of a Class IV waste combustor located at a hospital and installed after June 20, 1994, shall notify the commissioner 90 days prior to the installation of the waste combustor The notice submitted by the owner or operator of this Class IV waste combustor shall contain the information in items A to H

[For text of items A to G, see M R]

H The signature of the owner or operator with the following certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete Further, the waste combustor complies with the design, installation, and operating

requirements of Minnesota Rules, parts 7011 1201 to 7011 1290, applicable to a Class IV waste combustor"

Statutory Authority: *MS s 116.07*

History: *22 SR 1975*

7011.1215 APPLICABILITY OF STANDARDS OF PERFORMANCE FOR WASTE COMBUSTORS.

Subpart 1 **Waste combustors.** A person who constructs, modifies, reconstructs, or operates a waste combustor shall comply with parts 7011 1201 to 7011 1290, except as provided in subparts 2, 2a, and 3

[For text of subp 2, see M R]

Subp 2a **Units combusting tires or fuel derived from tires.** A waste combustor burning a single–item waste stream of tires or fuel derived from tires is not subject to parts 7011 1201 to 7011 1290 if the owner or operator notifies the commissioner in writing of its intent to combust only tires, and provides data documenting that the unit qualifies for this exemption

Subp 2b. **Units combusting waste contaminated with used oil.** An owner of a solid–fuel–fired indirect or direct heatmg source burning fossil fuel with only wastes contaminated with used oil generated by the owner is not subject to parts 7011 1201 to 7011 1290.

Subp 3. **Exemptions from standards of performance.** Crematoria, pathological waste combustors, and waste combustors used solely for the disposal of animal carcasses are exempt from the requirements of parts 7011 1210 to 7011 1290, and shall meet the conditions of this subpart

[For text of items A to C, see M R]

Subp 4 **Standards.** The standards of parts 7011.1227, 7011.1228, 7011.1229, 7011 1230, 7011 1231, 7011.1233, 7011 1240, subpart 2, and 7011 1272, subpart 2, apply at all times when waste is being continuously burned, except during periods of start–up, shutdown, or malfunction, provided that the duration of start–up, shutdown, or malfunction does not exceed three hours Fugitive emissions standards applicable to ash conveying systems do not apply during maintenance and repair of ash conveying systems "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown are not considered malfunctions

The start–up period commences when the waste combustor begins the continuous burning of solid waste and does not include any warm–up period when the waste combustor is combusting fossil fuel or other solid fuel

Continuous burning is the continuous, semicontinuous, or batch feeding of solid waste for purposes of waste disposal, energy production, or providmg heat to the combustion system in preparation for waste disposal or energy production The use of solid waste solely to provide thermal protection of the grate or hearth during the start–up period when municipal solid waste is not being fed to the grate is not considered to be continuous burning

Subp 5 **Transition for Class A waste combustors.** The application of the waste combustor standards to Class A waste combustors are described in this subpart

A Class A waste combustors shall demonstrate compliance with parts 7011 1201 to 7011 1290 by July 17, 1998, except that the conditions of part 7011 1240, subpart 1, shall be met accordmg to the schedule in part 7011 1240, subpart 1a

B If the Class A waste combustor cannot comply with these waste combustor standards by July 17, 1998, the waste combustor shall cease operating on July 17, 1998 If the waste combustor cannot comply by July 17, 1998, and elects to continue operating, the waste combustor owner or operator shall submit to the commissioner by June 17, 1998, a schedule that contains the following items

(1) a compliance schedule that contains the following milestones·

(a) a final control plan;

(b) the date that the owner or operator will award contracts for emission control systems or for process modifications, or issue orders for the purchase of component

parts to accomplish emission control or process modifications described in the final control plan,

(c) the date that the owner or operator will initiate on-site construction or installation of emissions control or process changes,

(d) the date that the owner or operator will complete on-site construction or installation of emissions control or process changes, and

(e) the date that the owner or operator will demonstrate compliance with the emissions limitations and monitoring requirements of parts 7011 1201 to 7011 1290 This date shall not be any later than December 19, 2000, and

(2) for each waste combustor whose compliance schedule shows that the unit will not achieve the emission limits of part 7011 1225 by July 17, 1998, the results of a performance test for PCDD/PCDF emissions from each waste combustor unit If a facility contains identical waste combustor units, only one of the identical units needs to be tested. The owner or operator shall provide an explanation with the submittal of why the units can be assumed to be identical The performance test shall have been conducted during or after the year 1990 The performance test shall be conducted according to the procedures of part 7011 1265

C Physical or operational changes made to a Class A waste combustor unit primarily for the purpose of complying with the emission limits in parts 7011 1201 to 7011 1290 prior to December 19, 2000, are not considered in determining whether the unit is a modified or reconstructed waste combustor subject to the requirements of Code of Federal Regulations, title 40, part 60, subpart Ea or Eb

Subp 5a **Transition for Class C waste combustors.** A Class C waste combustor shall demonstrate compliance with parts 7011 1201 to 7011 1290 by July 17, 1998

[For text of subp 6, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1220 PROHIBITIONS.

[For text of subpart 1, see M.R]

Subp 2 **Solid wastes requiring special approval.** No waste combustor shall combust yard waste or tires unless specifically allowed to do so in the air emission permit for the waste combustor

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1225 STANDARDS OF PERFORMANCE FOR WASTE COMBUSTORS.

Subpart 1 **Class A or C waste combustor.**

A No owner or operator of a Class A or C waste combustor shall cause to be emitted into the atmosphere from each waste combustor unit gases in excess of the applicable standards of performance shown in parts 7011.1227 and 7011.1228 Emissions, except opacity, shall be calculated under standard conditions corrected to seven percent oxygen on a dry volume basis An owner or operator of a mixed municipal solid waste or RDF waste combustor may determine compliance with the emission limitations using carbon dioxide measurements corrected to an equivalent of seven percent oxygen

B No owner or operator of a Class A or C waste combustor shall cause to be emitted into the atmosphere visible emissions of combustion ash from an ash conveying system, or buildings or enclosures of ash conveying systems, includmg conveyor transfer points, in excess of five percent of the observation period (i e 9 minutes per three-hour period), as determined by Code of Federal Regulations, title 40, part 60, Appendix A, Method 22, as amended This limit does not apply to visible emissions discharged inside buildings or enclosures of ash conveying systems

Subp 2 **Class I or II waste combustors.** No owner or operator of a Class I or II waste combustor shall cause to be emitted into the atmosphere from each waste combustor unit gases in excess of the standards of performance shown in part 7011 1230

[For text of subps 3 to 5, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1227 TABLE 1.

The table in this part governs emission limitations for Class A and C waste combustor units For acid gas limitations, either the applicable percent reduction or the parts per million by volume emission limitation, whichever is less stringent, is the emission limitation for the waste combustor

	Class C	Class A
Particulate Matter		
Front–half		0.012 gr/dscf
Total	0 020 gr/dscf	0 020 gr/dscf
PCDD/PCDF		
Total	500 ng/dscm	30 ng/dscm
Acid Gases		
Hydrogen chloride	NA	95% control or 29 ppm
Sulfur dioxide	NA	75% control or 29 ppm
Carbon Monoxide		
Modular starved air	50 ppm	50 ppm
Modular excess air	50 ppm	50 ppm
Mass burn waterwall	100 ppm	100 ppm
Mass burn refractory	100 ppm	100 ppm
Mass burn rotary refractory	100 ppm	100 ppm
Mass burn rotary waterwall	250 ppm	250 ppm
Bubbling fluidized bed	100 ppm	100 ppm
Circulating fluidized bed	100 ppm	100 ppm
Pulverized coal/ refuse–derived fuel mixed fuel–fired combustor	NA	150 ppm
Spreader stoker coal/refuse–derived fuel mixed fuel–fired combustor	NA	200 ppm
RDF stoker	150 ppm	200 ppm
Opacity	10%	10%
Mercury (short–term)		
Modular with ESP	1,000 µg/dscm	NA
Mass burn	1,000 µg/dscm	NA

Modular, mass burn, or fluidized bed with wet or dry scrubber	100 µg/dscm or 85% removal	NA
For all waste combustors except those combusting RDF in spreader stokers	NA	80 µg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (90–day test interval)	NA	50 µg/dscm or 85% removal
Mercury (long–term)		
Modular with ESP	600 µg/dscm	NA
Mass burn	600 µg/dscm	
Modular, mass burn, or fluidized bed with wet or dry scrubber	60 µg/dscm or 85% removal	NA
For all waste combustors except those combusting RDF in spreader stokers	NA	60 µg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (90–day test interval)	NA	30 µg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (12–month test interval)	NA	30 µg/dscm or 85% removal
Cadmium	NA	40 µg/dscm
Lead	NA	440 µg/dscm

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1228 NITROGEN OXIDES LIMITS FOR CLASS A WASTE COMBUSTORS.

The nitrogen oxides emission limits in Table A apply to each waste combustor unit at a Class A waste combustor facility. The owner or operator shall use the procedures of part 7011 1260 for determining compliance with the nitrogen oxides emission limits of Table A

Alternatively, an owner or operator may average nitrogen oxide emissions across the waste combustor facility accordmg to the procedures in Code of Federal Regulations, title 40, section 60.33b(d)(1), as amended Waste combustor units for which emissions averaging is used shall not exceed the nitrogen oxide emission limits m Table B

TABLE A

Mumcipal Waste Combustor Technology	Nitrogen Oxides Emission Limit (parts per million by volume)
Mass burn waterwall	205
Mass burn rotary waterwall	205
Refuse–derived fuel combustor	250
Fluidized bed combustor	180

TABLE B

Municipal Waste Combustor Technology	Nitrogen Oxides Emission Limit (parts per million by volume)
Mass burn waterwall	180
Refuse–derived fuel combustor	230
Fluidized bed combustor	220

Before a waste combustor owner or operator may implement emissions averaging, the owner or operator shall identify units that are included in the nitrogen oxides emissions averaging plan in either the compliance report required by part 7017 2035 that contains the results of the units' initial performance tests required by part 7011 1270, item A, subitem (1), or in the annual report required in part 7011.1285, as applicable prior to implementing the averaging plan The units being included in the averaging plan may be redesignated every calendar year Partial year averaging is allowable upon written commissioner approval

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1229 TABLE 2.

The table in this part governs emission limitations for a Class II waste combustor For acid gas limitations, either the applicable percent reduction or the parts per million by volume emission limitation, whichever is less stringent, is the emission limitation for the waste combustor

Size	Class II
Particulate Matter	
Front–half	0 015 gr/dscf
Total	0 020 gr/dscf
PCDD/PCDF	
(total)	30 ng/dscm
Acid Gases	
HC1	90% control or 25 ppm
SO_2	80% control or 30 ppm

Carbon monoxide	
Modular	50 ppm
Mass burn or fluidized bed	100 ppm
RDF stoker	150 ppm
Opacity	10%
NO_x	NA
Mercury (short–term)	
Modular	100 µg/dscm or 85% removal
Mass Burn	100 µg/dscm or 85% removal
RDF (90–day test interval)	50 µg/dscm or 85% removal
FBC	100 µg/dscm or 85% removal
Mercury (long–term)	
Modular	60 µg/dscm or 85% removal
Mass burn	60 µg/dscm or 85% removal
RDF (90–day test interval)	30 µg/dscm or 85% removal
FBC	60 µg/dscm or 85% removal
RDF (12–month test interval)	30 µg/dscm or 85% removal

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1230 STANDARDS OF PERFORMANCE FOR CLASS I MUNICIPAL WASTE COMBUSTORS.

Subpart 1. **Scope.** The owner or operator of a Class I waste combustor shall comply with the emission limits, notification, monitoring, testing, recordkeeping, and reporting requirements of the new source performance standards incorporated in part 7011 1290, except as provided in subpart 2 In addition, the owner or operator shall comply with the following limitations

A if the owner or operator chooses to comply with the operator certification requirements of Code of Federal Regulations, title 40, section 60 54b, as amended, by obtaining certification through the Minnesota Pollution Control Agency, then the owner or operator shall comply with parts 7011 1240, subpart 1; 7011 1281, 7011 1282, 7011 1283, and 7011 1284,

B the general waste combustor facility requirements of part 7011 1245,

C industrial solid waste management plan requirements of part 7011 1250,

D the reporting and response requirements to exceedance of continuously monitored emissions in part 7011 1260, subpart 7,

E the reporting and response requirements in part 7011 1265, subpart 11, if an exceedance is measured during the conduct of a performance test, and

F the test or monitoring frequency for a waste composition study of part 7011 1270, item E

Subp 2 **Mercury emission limitations.** Instead of the mercury emission limits contained in Code of Federal Regulations, title 40, sections 60 52b(a)(5), 60 58b(d)(2)(ix), and 60 58b(d)(2)(x), as amended, the owner or operator of a Class I waste combustor shall comply with the mercury emission limits described in this subpart and the testing and reporting requirements of parts 7011 1265, subpart 2, and 7011 1270, item E

	Class I
Mercury (short–term)	
For all waste combustors except those combusting RDF in spreader stokers	80 μg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (90–day test interval)	50 μg/dscm or 85% removal
Mercury (long–term)	
For all waste combustors except those combusting RDF in spreader stokers	60 μg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (90–day test interval)	30 μg/dscm or 85% removal
Waste combustor units combusting RDF in spreader stokers (12–month test interval)	30 μg/dscm or 85% removal

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1235 REQUIREMENTS OF CLASS IV WASTE COMBUSTORS.

[For text of subps 1 and 2, see M R]

Subp 2a **Use of auxiliary fuel.** Auxiliary fuel shall be used to maintain the operating temperatures required in subpart 2 from the time the solid waste feed has been discontinued until the combustion chamber is clear of combustible material or active combustion ceases to exist in the combustion chamber

[For text of subp 3, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1240 OPERATING REQUIREMENTS.

Subpart 1 **Presence of certified operator.** The person described in this subpart shall be present at the waste combustor facility at all times when solid waste is being combusted, except as provided in subpart 1a

A For Class A, C, I, or II waste combustors, either a chief facility operator or shift supervisor who holds a certificate as described in part 7011 1281, subpart 1

B For Class D and III waste combustors, either a chief facility operator or shift supervisor who holds a certificate as described in part 7011.1280

C For Class IV waste combustors, the operator supervisor shall hold a certificate as described in part 7011 1280

Subp 1a **Transition period for certifying operators.** Notwithstanding subpart 1, operators shall be certified within the time frames described in items A to C

A For Class A and C waste combustors:

(1) on May 18, 1998, or until the conditions of subitems (2) to (4) are met, chief facility operators and shift supervisors shall hold a certificate as described in part 7011 1280,

(2) within 12 months of May 18, 1998, all chief facility operators and shift supervisors employed on May 18, 1998, shall have obtained full certification as described in part 7011 1281,

(3) notwithstanding subitem (2), within six months of the initial start–up of a waste combustor unit or associated air pollution control equipment, all chief facility operators and shift supervisors shall have obtained full certification as described in part 7011 1281,

(4) notwithstanding subitem (2) or (3), individuals, if assuming the duties of chief facility operator or shift supervisor after May 18, 1998, shall have obtained full certification as described in part 7011 1281 within six months of assuming such duties, and

(5) within 12 months of May 18, 1998, control room operators shall obtain certification as described in part 7011 1280 After 12 months from May 18, 1998, individuals, if assuming the duties of control room operator for the first time, shall obtain certification as described in part 7011 1280 within six months of assuming such duties.

B For Class I and II waste combustors

(1) within six months of the initial start–up of a waste combustor unit, all chief facility operators and shift supervisors shall have obtained full certification, or have scheduled the exam appropriate to the certification being sought as described in part 7011 1281, and

(2) notwithstanding subitem (1), individuals, if assuming the duties of chief facility operator or shift supervisor after six months after the initial start–up of a waste combustor unit, shall obtain full certification as described in part 7011 1281 within six months of assuming such duties

Subp 2. **Particulate matter control device operating temperature.** The inlet gas stream to each particulate matter control device on a waste combustor as measured by part 7011.1260, subpart 4, item A, shall have a temperature of no greater than 30 degrees Fahrenheit above the highest four–hour arithmetic mean temperature measured during four consecutive hours for this gas stream during the most recent performance test for polychlorinated dibenzo–p–dioxins and polychlorinated dibenzofurans that demonstrated compliance, except as allowed in items A and B

A For Class A, C, and II waste combustors, during the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no particulate matter control device temperature limitations are applicable

B For Class A, C, and II waste combustors, the commissioner shall waive the particulate matter control device temperature limits for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state–of–the–art for controlling facility emissions, provided a written notification is submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information

(1) a description of the proposed project, and the outcome the project is designed to evaluate,

(2) how the project conforms with the activities described in this subpart for which the temperature limit can be waived, and

(3) the length of time the project will take to complete

The commissioner shall approve the waiving of the particulate matter control device operating temperature limits provided that the project conforms with the activities described in this subpart for which the temperature limit can be waived, and the project can be accomplished withm 14 days

Subp 3 **Start–up on waste prohibited.** During start–up from a cold furnace, auxiliary fuels shall be used to achieve combustion chamber operating temperature The use of solid waste solely to provide thermal protection of the grate or hearth during the start–up period when solid waste is not being fed to the grate is not considered to be continuous burning

Subp 4 [Repealed, 22 SR 1975]

Subp 5 **Range of operation.** No owner or operator of a waste combustor shall operate the waste combustor while combusting solid waste at a level above 110 percent of the maximum demonstrated capacity of the combustion system, except as allowed in items A and B, without conducting a performance test under part 7011.1265, which demonstrates compliance with the emission limitations of part 7011 1225 at greater than 110 percent of the maximum demonstrated capacity

A. For Class A, C, and II waste combustors, during the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no waste combustor maximum demonstrated capacity is applicable

B. For Class A, C, and II waste combustors, the commissioner shall waive the maximum demonstrated capacity limit for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state–of–the–art for controlling facility emissions, provided a written notification is submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information

(1) a description of the proposed project, and the outcome the project is designed to evaluate;

(2) how the project conforms with the activities described in this subpart for which the maximum demonstrated capacity limit can be waived; and

(3) the length of time the project will take to complete

The commissioner shall approve the waiving of the maximum demonstrated capacity limits provided that the project conforms with the activities described m this subpart for which the operating capacity limit can be waived, and the project can be accomplished within 14 days

Subp. 6 [Repealed, 22 SR 1975]

[For text of subps 7 to 9, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1260 CONTINUOUS MONITORING.

Subpart 1 **Combustion chamber temperature monitor.** The owner or operator of a Class D, III, or IV waste combustor shall install and operate at all times temperature monitors that continuously read and record the temperature at the point in the combustion unit one second downstream of the entrance of the last overfire or secondary air injection The owner or operator may elect to place temperature monitors at another point downstream from the entrance of the last overfire or secondary air injection, provided that the owner or operator conducts mapping of the operating combustion chambers to develop temperature isopleths and correlates these temperatures to the downstream temperature monitors The averaging period for combustion chamber temperatures shall be four–hour arithmetic block averages calculated from four one–hour arithmetic averages Each one–hour arithmetic average shall consist of at least ten data points equally spaced in time.

Subp 2 **Particulate matter control device temperature monitors.** The owner or operator of a waste combustor shall install, calibrate, maintain, and operate at all times temperature monitors that continuously read and record the temperatures of the flue gas at the inlet of each particulate matter control device

Subp 3 **Continuous monitors.** The owner or operator of a waste combustor shall install, calibrate, maintain, and operate a continuous monitoring system when burning solid waste Monitoring systems that continuously read and record the following outputs shall be installed

A in Class III, A, C, or D waste combustors

[For text of subitems (1) to (3), see M R]

(4) for oxygen or carbon dioxide at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored, to report corrected concentrations of regulated pollutants,

[For text of items B and C, see M R.]

Subp 4 **Averaging periods.** Except as provided in this subpart and subparts 4a and 5, the requirements of part 7017 1000 apply to continuous monitoring data collection, reduction, and averaging periods

A For particulate matter control device inlet temperature monitoring, four–hour arithmetic block averages calculated from four consecutive one–hour arithmetic averages

[For text of item B, see M R]

C At waste combustors other than mass burn rotary waterwall combustors or RDF waste combustors for carbon monoxide, a four–hour block average For mass burn rotary waterwall combustors or RDF stokers, the averaging period for carbon monoxide shall be a daily 24–hour arithmetic average measured between 12 midnight and the following midnight. The four–hour and 24–hour average shall be calculated from one–hour arithmetic averages At least four points equally spaced in time shall be used to calculate each one–hour average During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average Each one–hour average shall be corrected to seven percent oxygen on an hourly basis using the one–hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system

D For sulfur dioxide, the geometric average of the one–hour arithmetic average emission concentration during each 24–hour daily period measured from midnight to midnight At least four data points equally spaced in time shall be used to calculate each one–hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average Each one–hour average shall be corrected to seven percent oxygen on an hourly basis using the one–hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system

E For nitrogen oxides, the arithmetic average of the one–hour arithmetic average emission concentration during each 24–hour daily period measured from midnight to midnight At least four data points equally spaced in time shall be used to calculate each one–hour arithmetic average During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average Each one–hour average shall be corrected to seven percent oxygen on an hourly basis using the one–hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system

[For text of item F, see M R]

G For oxygen or carbon dioxide, a one–hour average

Subp 4a **Calculation of sulfur dioxide and nitrogen oxide emissions.**

A Compliance with the sulfur dioxide emission limit and percent reduction shall be determined by using a continuous emission monitor to measure sulfur dioxide and calculating a 24–hour daily geometric mean emission concentration and daily geometric mean percent reduction using Code of Federal Regulations, title 40, part 60, Appendix A, Method 19, section 5 4, as amended, to determine the daily geometric average percent reduction in

the potential sulfur dioxide emission concentration For waste combustors which do not operate continuously, compliance shall be determined using a daily geometric mean of all hourly average values for the hours during the day that the facility is operated

B Compliance with the nitrogen oxides emission standards shall be determined by using a continuous emission monitor for measuring nitrogen oxides and calculating a 24–hour daily arithmetic average emission concentration using Code of Federal Regulations, title 40, part 60, Appendix A, Method 19, section 4 1, as amended For waste combustors which do not operate continuously, compliance shall be determined using an arithmetic mean of all hourly average values for the hours during the day that the facility is operated

Subp 5 **Installation and operation of continuous monitors.** The owner or operator of a waste combustor with continuous monitors shall comply with the requirements of part 7017 1000, except as provided in items A to I.

[For text of item A, see M R]

B Continuous monitors shall be operated so as to measure and record data for at least 75 percent of the hours per day for 90 percent of the days of the calendar quarter that the waste combustor is operating and combusting solid waste

[For text of item C, see M R]

D When continuous emissions data for sulfur dioxide removal efficiency, sulfur dioxide or nitrogen oxide emission rates, or carbon monoxide are not obtained because of monitor breakdowns, repairs, calibration checks, and zero and span adjustments, emission data calculations to determine compliance shall be made using the following methods.

(1) for sulfur dioxide removal efficiency or sulfur dioxide or nitrogen oxide emission concentrations, Code of Federal Regulations, title 40, part 60, Appendix A, Method 19, as amended, to provide valid emission data in order to meet the requirements of item B For waste combustors other than Class A, other momtoring systems or other data collection methods may be used as approved by the commissioner, and

(2) for carbon monoxide, Code of Federal Regulations, title 40, part 60, Appendix A, Method 10, as amended, to provide valid emission data m order to meet the requirements of item B For waste combustors other than Class A, other monitoring systems or other data collection methods may be used as approved by the commissioner

E Zero drift and span drift checks of emission monitoring systems shall be conducted in accordance with Code of Federal Regulations, title 40, section 60 13, as amended

F Span values for continuous monitors shall be as described in subitems (1) to (4) Dual scale monitors may be used to monitor emissions beyond the ranges specified in subitems (1) to (4).

(1) The span value of the sulfur dioxide continuous monitors at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the waste combustor unit, and the span value of the momtor at the outlet of the sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the waste combustor unit

(2) The span value of the nitrogen oxides continuous monitors shall be 125 percent of the maximum estimated hourly potential nitrogen oxides emissions of the waste combustor unit

(3) The span value of the oxygen or carbon dioxide monitor shall be 25 percent oxygen or carbon dioxide

(4) The span value of the carbon monoxide monitor shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the waste combustor unit

G Quarterly accuracy determinations, daily calibration drift tests, and annual relative accuracy test audits shall be performed in accordance with procedures in Code of Federal Regulations, title 40, part 60, Appendix F, as amended, for sulfur dioxide, nitrogen oxides, carbon monoxide, and oxygen or carbon dioxide, except that section 5 1 1 (relative accuracy test audit) shall not apply to the oxygen monitor

H The procedures under Code of Federal Regulations, title 40, section 60 13, as amended, shall be followed for installation, evaluation, and operation of continuous emis-

sions monitoring systems for sulfur dioxide, nitrogen oxides, opacity, and oxygen or carbon dioxide.

I The oxygen or carbon dioxide momtor shall conform to Performance Specification 3 in Code of Federal Regulations, title 40, part 60, Appendix B, as amended, except that section 2 3 shall not apply

Subp 6 **Recording data from continuous monitoring.** The owner or operator of a waste combustor shall maintain a record of the information contained in this subpart Waste combustors shall maintain a permanent record of continuously measured parameters The record of momtoring shall contain

A the calendar date,

B the following measurements recorded in a manner that allows the data to be immediately accessed upon inspection by the commissioner

(1) all six–minute opacity readings,

(2) all one–hour average sulfur dioxide emission concentrations at the inlet and outlet of the acid gas control device if compliance is based on a percent reduction, or at the outlet only if compliance is based on the outlet emission limit, and

(3) all one–hour average carbon monoxide and nitrogen oxide emission concentrations, steam flow or alternative unit load measurement parameter as described in part 7011 1265, subpart 4a, combustion chamber temperature, and particulate matter control device temperatures, and

C the following average concentrations and parameters

(1) all 24–hour daily geometric average percent reductions in sulfur dioxide emissions or all 24–hour daily geometric average sulfur dioxide emission concentrations, as applicable,

(2) all 24–hour daily arithmetic average nitrogen oxides emission concentrations,

(3) all four–hour block or 24–hour daily arithmetic average carbon monoxide emission concentrations, as applicable; and

(4) all four–hour block arithmetic average unit load levels and particulate matter control device inlet temperatures

[For text of subp 7, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1265 REQUIRED PERFORMANCE TESTS, METHODS, AND PROCEDURES.

Subpart 1 **Performance test methods and procedures.** An owner or operator of a waste combustor required to conduct performance tests for a waste combustor shall use the performance test methods and procedures specified in parts 7017.2001 to 7017 2060 except as modified in this part Not operating a sorbent injection system for the sole purpose of testmg in order to demonstrate compliance with the percent reduction standards for sulfur dioxide and hydrogen chloride is not a modification under part 7007 0100, subpart 14

Subp 2 **Performance test methods for criteria pollutants.** An owner or operator of a waste combustor required to conduct performance tests for particulate matter, sulfur dioxide, or nitrogen oxides shall use test methods as described in items A to D

A. Part 7011 0725 shall apply to tests for particulate matter, except that for Class I, II, A, and C waste combustors, the minimum sample volume shall be 1 7 dscm, and the probe and filter holder heatmg systems in the sample train shall be set to provide a gas temperature no greater than 160 degrees Celsius, plus or minus 14 degrees For Class III, IV, and D waste combustors, the minimum sample volume shall be 0 85 dscm Smaller samplmg times or sample volumes shall be approved by the commissioner, when the commissioner determines that they are necessitated by process variables or other factors An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 test run for particulate matter Particulate matter emissions, expressed in gr/dscf, shall be corrected to seven percent oxygen by using the following formula

$$c_7 = \frac{14c}{(21-\%O_2)}$$

where c_7 is the concentration of particulate matter corrected to seven percent oxygen;

c is the concentration of particulate matter as measured by Code of Federal Regulations, title 40, part 60, Appendix A, Method 5, as amended, or in part 7011 0725, and

$\%O_2$ is the percentage of oxygen as measured by Code of Federal Regulations, title 40, part 60, Appendix A, Method 3, as amended.

[For text of subitems (1) and (2), see M.R.]

B For opacity emissions, Code of Federal Regulations, title 40, part 60, Appendix A, Method 9, as amended, shall be used to determine compliance with opacity limits.

C. For Class IV waste combustors carbon monoxide emissions, compliance with the emission limit shall be determined by using Code of Federal Regulations, title 40, part 60, Appendix A, Method 10, as amended

D For fugitive ash emissions, Code of Federal Regulations, title 40, part 60, Appendix A, Method 22, as amended, shall be used The minimum observation time shall be a series of three one–hour observations The observation period shall include times when the facility is transferring ash from the waste combustor unit to the area where ash is stored or loaded mto containers or trucks. The average duration of visible emissions per hour shall be calculated from the three one–hour observations The average shall be used to determine compliance with the emission limit.

Subp 3 **Performance test methods for other air contaminants.** If not specified in this subpart, the owner or operator shall use test methods in Code of Federal Regulations, title 40, part 60, Appendix A, or part 61, Appendix B, as amended, or other methods determined by the commissioner in writing to be equivalent For Class A waste combustors, other methods used for performance testmg must be approved by the Environmental Protection Agency

A. For hydrogen chloride, the percentage reduction in the potential hydrogen chloride emissions ($\%P_{HCl}$) is computed usmg the following formula.

$$\%P_{HCl} = \frac{(E_1 - E_o)}{E_1}$$

where E_1 is the potential hydrogen chloride emission rate measured at the control device inlet, corrected to seven percent O_2; and E_o is the hydrogen chloride emission rate measured at the outlet of the acid gas control device, corrected to seven percent O_2
Code of Federal Regulations, title 40, part 60, Appendix A, Method 26 or 26A, as amended, shall be used for determining the hydrogen chloride emission rate. The minimum sampling time shall be one hour An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride The average of the hydrogen chloride emission concentration or percent reduction is used to determine compliance

B For PCDD/PCDF emissions, Code of Federal Regulations, title 40, part 60, Appendix A, Method 23, as amended, shall be used for determining compliance with the PCDD/PCDF emission limits. For Class II and A facilities, the minimum sample time shall be four hours per test run For Class III, C, and D facilities, the minimum sample time shall be three hours per test run An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 23 test run for PCDD/PCDF The average of the PCDD/PCDF test runs is used to determine compliance

C For mercury, lead, and cadmium emissions, Code of Federal Regulations, title 40, part 60, Appendix A, Method 29, as amended, shall be used for measuring emissions of lead, cadmium, and mercury The minimum sample volume shall be 1.7 dscm An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for lead and cadmium The average of the lead or cadmium emission concentrations from three test runs or more shall be used to determine compliance The procedures in item D shall be used to determine compliance with the mercury emission limits

D To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device shall be used. The minimum sample volume shall be 1 7 dscm The maximum sample run time shall be two hours. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for mercury

To determine the percent reduction of mercury, concurrent sampling for mercury at the inlet and outlet of the air pollution control system shall be performed at each occurrence of mercury emissions performance testing.

Owners and operators of RDF combustors may choose to conduct mercury emissions testing either every 90 days or every 12 months If the owner or operator of an RDF combustor chooses to conduct testing every 90 days, the requirements of subitems (1) and (2) apply. If the RDF combustor chooses to test every 12 months, the requirements of subitem (3) apply.

[For text of subitems (1) and (2), see M.R.]

(3) Owners or operators of waste combustors combusting RDF who choose to conduct mercury emission testing every 12 months shall use the procedures in this subitem to determine compliance with mercury emission limits.

(a) The waste combustor is in compliance with the 12–month mercury emission concentration limit if the arithmetic average of three or more samples is less than the 12–month test interval mercury emission concentration limit

(b) If the average computed in unit (a) exceeds the 12–month mercury emission concentration limit, the removal efficiency for each run shall be computed by the equation in subitem (1), unit (b) The waste combustor is in compliance with the 12–month mercury emission limit if the arithmetic average of the removal efficiencies is greater than 85 percent

Subp 4 **Steam flow measurement method.** The method contained in ASME Power Test Codes· Test Codes for Steam Generating Units, PTC 4.1 (1972), section 4, incorporated by reference in part 7011 1205, shall be used for calculating the steam flow required under part 7011 1260, subpart 3, item A, subitem (2) The recommendations of Instruments and Apparatus Measurement of Quantity of Materials, Interim Supplement 19 5 (1971), chapter 4, incorporated by reference in part 7011.1205, shall be followed for design, construction, installation, calibration, and use of nozzles and orifices, except that measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed All signal conversion elements associated with steam flow measurements must be calibrated according to the manufacturer's instructions before each PCDD/PCDF test, and at least once per year This annual calibration shall be recorded in the daily operating record as described in part 7011 1285, subpart 2

[For text of subp 4a, see M.R.]

Subp 4b **Procedures for correlating carbon dioxide and oxygen concentrations.** If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified as described in items A to E

A The fuel factor equation in Code of Federal Regulations, title 40, part 60, Appendix A, Method 3B, shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location Method 3, 3A, or 3B shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor

B Samples shall be taken for at least 30 minutes in each hour

C. Each sample shall represent a one–hour average.

D A minimum of three runs shall be performed

E The relationship between carbon dioxide and oxygen concentrations that is established shall be submitted as part of the initial performance test report

Subp 5 **Performance tests required.** Performance tests shall be conducted on waste combustors to determine the emission concentrations of the following air contaminants

A. lead,

B cadmium,

C. mercury; and

D any other air contaminant for which an emission limitation applies to the waste combustor, except for opacity and those contaminants for which compliance is demonstrated by the use of a continuous monitor

[For text of subp 6, see M R.]

Subp 7 **Maximum demonstrated capacity.** For Class I, II, III, A, C, and D waste combustors, maximum demonstrated capacity of each waste combustor unit shall be determined during the initial performance test for PCDD/PCDF and each subsequent performance test during which compliance with the PCDD/PCDF emission limit in part 7011.1225 is achieved For Class IV waste combustors, maximum demonstrated capacity shall be determined during the initial performance test and each subsequent performance test during which compliance with emission limits is demonstrated

Subp 8 **Particulate matter control device temperature.** The owner or operator of a waste combustor with postcombustion particulate matter control shall determine and record the four–hour arithmetic average gas stream temperature as measured at the inlet to each particulate matter control device during the initial and each subsequent performance test for PCDD/PCDF's demonstrating compliance with the PCDD/PCDF emission limit in part 7011.1225

Subp 9 [Repealed, 22 SR 1975]

[For text of subps 10 and 11, see M.R.]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1270 PERFORMANCE TEST, WASTE COMPOSITION STUDY, AND ASH SAMPLING FREQUENCY.

The owner or operator of a waste combustor shall conduct the performance tests required in part 7011 1265, subpart 5, based on the schedules in items A to E

A Class A waste combustors shall conduct performance tests as described m subitems (1) to (6).

(1) Once within the normal start–up

(2) Once annually after the test in subitem (1), but not more than 12 months following the initial performance test, except that fugitive emissions from ash handling need only to be tested once within normal start–up as required m subitem (1)

(3) If all PCDD/PCDF performance tests for all units for a two–year period indicate that PCDD/PCDF emissions are less than or equal to 15 ng/dscm corrected to seven percent O_2 from each unit, then the owner or operator may choose to test one unit for PCDD/PCDF once annually after the test in subitem (2), but not more than 12 months following the previous performance test Thereafter, the owner or operator may continue to test a different umt for PCDD/PCDF each year, in sequence (e g unit 1, unit 2, etc.) If any annual performance test demonstrates a PCDD/PCDF concentration greater than 15 ng/dscm corrected to seven percent O_2, performance tests thereafter shall be conducted annually on all units until all annual performance tests for all units for a two–year period indicate a PCDD/PCDF emission concentration less than or equal to 15 ng/dscm

(4) The owner or operator will specify what the PCDD/PCDF performance testing schedule is each time a pretest notification is given under the conditions of part 7017 2030

(5) From Class A waste combustors that are not burning RDF, for mercury emissions every three months

The facility may implement testmg for mercury not less than once every 12 months under the following conditions· the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long–term limit for three consecutive years, and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400

Waste combustors combusting RDF may choose to conduct performance tests for mercury every 12 months If a test shows that an emission limit for mercury from a waste combustor combusting RDF is exceeded, the commissioner shall require testing every three months thereafter until compliance with the standard is demonstrated

(6) A waste composition study every five years.

B Class II and C waste combustors shall conduct performance tests as described in subitems (1) to (4)

(1) Once within the normal start–up, except as provided in subitem (3)(b)

(2) Once annually after the test in subitem (1), but not more than 12 months following the initial performance test, except as provided in subitem (3) Also, fugitive emissions from ash handling do not need to be tested more frequently than the initial test required in subitem (1) If three annual performance tests for a three–year period show compliance with standards in part 7011 1225, the owner or operator may continue to conduct annual testing, or may choose to conduct performance tests every 2–1/2 years, except as required by subitem (3) At a minimum, a performance test shall be conducted every 2–1/2 years, but no more than 30 months following the previous compliance test. If a performance test indicates noncompliance with applicable standards, the owner or operator shall resume annual testing for three years for that pollutant for which noncompliance was demonstrated. If three annual performance tests for the three–year period show compliance with standards in part 7011 1225, the owner or operator may again conduct performance testing every 2–1/2 years

(3) For mercury emissions, Class C waste combustors shall commence testing June 20, 1995, and continue testing every 90 days until August 1, 1997 Thereafter, Class C waste combustors that are not burning RDF shall conduct mercury emissions testing every three months

The facility may implement testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, under the following conditions: the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long–term limit for three consecutive years, and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400

If a facility is granted testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, and a mercury performance test shows mercury emissions greater than 50 percent of the facility's permitted mercury limit, the facility shall conduct annual mercury stack sampling until emissions are below 50 percent of the facility's permitted mercury limit Once the facility demonstrates that mercury emissions are again below 50 percent of the facility's permitted limit, the facility may resume testing every three years, upon notifying the commissioner in writing.

Waste combustors combusting RDF may choose to conduct performance tests for mercury emissions every 12 months. If a test shows that emission limits for mercury from a waste combustor combusting RDF are exceeded, the commissioner shall require performance testing every three months until compliance is demonstrated

(4) A waste composition study every five years

C Class III and D waste combustors shall conduct performance tests as described in subitems (1) to (6)

(1) Once within the normal start–up

(2) Every 2–1/2 years after the test in subitem (1), but not more than 30 months following the initial performance test.

(3) For Class III waste combustors, emissions of mercury, every three months.

The facility may implement testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, under the following conditions the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long–term limit for three consecutive years, and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007 1400

If a facility is granted testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, and mercury performance test shows mercury emissions greater than 50 percent of the facility's permitted mercury limit, the facility shall conduct annual mercury stack sampling until emissions are below 50 percent of the facility's permitted mercury limit Once the facility demonstrates that mer-

cury emissions are again below 50 percent of the facility's permitted limit, the facility may resume testing every three years, upon notifying the commissioner in writing

(4) For Class D waste combustors, emissions of mercury every 2–1/2 years.

(5) For ash, in accordance with part 7045 0131 every 30 months for toxicity by toxic characteristic leach procedure for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and nickel

(6) A waste composition study every five years

[For text of item D, see M R]

E Class I waste combustors shall conduct performance tests for mercury emissions every three months for waste combustors that are not burning RDF

The facility may implement testing for mercury not less than once every 12 months under the following conditions the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long–term limit for three consecutive years, and the owner or operator has submitted a request for an administrative amendment accordmg to the procedures of part 7007 1400.

Waste combustors combusting RDF may choose to conduct performance tests for mercury every 12 months If a test shows that an emission limit for mercury from a waste combusting RDF is exceeded, the commissioner shall require testing every three months thereafter until compliance with the standard is demonstrated

Class I waste combustors shall conduct a waste composition study every five years

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1272 MERCURY OR PCDD/PCDF ADDITIVE EQUIPMENT OPERATION, MONITORING, AND REPORTING.

Subpart 1 **Mercury or PCDD/PCDF removal equipment operation.** The owner or operator of a waste combustor usmg additives for the control of mercury or PCDD/PCDF shall determine and record the average additive mass feed rate, m pounds–per–hour, during the initial and at each subsequent performance test for mercury or PCDD/PCDF The owner or operator shall correlate this feed rate to an operating parameter of the additive injection system

The owner or operator shall submit the calculations supporting the correlation with the results of the mercury or PCDD/PCDF performance test

Subp 2 **Mercury or PCDD/PCDF additive feed rate monitor.** The owner or operator of a waste combustor usmg additives for the control of mercury or PCDD/PCDF shall install, maintain, and operate at all times a system for monitoring the additive injection system's operating parameter that is the primary indicator of the additive's mass feed rate, as determined by the requirements of subpart 1

The monitored condition must equal or exceed that determined during the most recent mercury or PCDD/PCDF performance test that demonstrated compliance with the emission limit

Subp 3 **Recordkeeping and recording of additive use.**

A The owner or operator shall maintain a record of the average additive mass feed rate for each hour of operation, as measured by the operating parameter required in subpart 2 If the operating parameter is not a direct measurement of the mass feed rate of the additive, then the record shall contain the calculations supporting the correlation between the mass feed rate and the measured operating parameter.

The record shall be maintained on site in a form suitable for immediate inspection.

B. During each calendar quarter, the owner or operator shall estimate the total additive used at the waste combustor in pounds or kilograms by two mdependent means as described in subitems (1) and (2)

(1) the weight of additive delivered to the plant, and

(2) estimate the average additive mass feed rate in pounds per hour, or kilograms per hour, for each hour of operation for each unit, based on the parameters measured in

subpart 2 Sum the results of the mass feed rates for all waste combustor units at the plant for the total number of hours of operation during the calendar quarter.

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1275 PERSONNEL TRAINING.

Subpart 1 **General.** Waste combustor facility personnel described in subpart 2 must complete a program of instruction and on-the-job training based on the operating manual described in subpart 3 The program must train facility personnel to maintain compliance with parts 7011 1201 to 7011 1290 Individual training shall be specific to the position held and shall, at a minimum, address the items in subpart 3

For personnel described in subpart 2, the training program shall require

[For text of items A and B, see M R]

C that those without waste combustor or boiler operation experience, initially review the operating manual and work under the direct supervision of a certified operator or a certified operator's designee before assumption of job-related activities affecting air emissions for the following duration

(1) for Class I, II, III, A, C, or D waste combustor personnel, 40 hours, and

(2) for Class IV waste combustor personnel, 12 hours, and

[For text of item D, see M R.]

[For text of subp 2, see M R]

Subp 3. **Operating manual requirements.** The owner or operator of a waste combustor shall develop and update on a yearly basis a site specific operating manual that shall, at a minimum, address the following elements of waste combustor unit operation

[For text of items A to E, see M R]

F procedures for operating the waste combustor within the standards established in parts 7011 1201 to 7011.1290,

[For text of items G to O, see M R]

[For text of subp 4, see M R.]

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1280 OPERATOR CERTIFICATION.

Subpart 1 **Scope.** The commissioner shall certify a person provided the person can demonstrate the completion of

A ASME provisional certification as described in Standard for the Qualification and Certification of Resource Recovery Facility Operators, American Society of Mechanical Engineers (ASME) QRO-1-1994, incorporated by reference in part 7011.1205, for chief facility operators, shift supervisors, and control room operators of municipal waste combustors, or

B the coursework and examination program set forth in subpart 3.

Subp 2 **Personnel who shall be certified.** The following personnel shall be certified through the process established in this part

A. for Class I, II, III, A, C, or D waste combustors, the chief facility operator and shift supervisors, and

B for Class IV waste combustors, the operator supervisor.

Subp 3 **Requirements for operator certification.** To be certified, a person must demonstrate the skill, knowledge, and experience necessary to operate a waste combustor, by meeting the criteria of item A or B

[For text of item A, see M.R]

B A certified operator of a Class I, II, III, A, C, or D waste combustor shall comply with the requirements in subitem (1) or (2)

(1) Persons who possess a Minnesota Department of Labor and Industry boiler license of at least second class engineer, Grade B, shall

(a) have one year of experience operating a steam generation plant or Class I, II, III, A, C, or D waste combustor at the licensure level of at least second class engineer, Grade B, and complete at least 24 hours of training approved by the commissioner which are designed to ensure competency to operate a Class I, II, III, A, C, or D waste combustor,

(b) complete the certification process described in subpart 4, and

(c) pass the examination described in subpart 5

(2) Persons who do not meet the qualifications of subitem (1), unit (a), shall

(a) have three years of experience operating a Class I, II, III, A, C, or D waste combustor or in power generation and complete at least 24 hours of training approved by the commissioner which are designed to ensure competency to operate a Class I, II, III, A, C, or D waste combustor;

(b) complete the certification process described in subpart 4, and

(c) pass the examination described in subpart 5

[For text of subp 4, see M R]

Subp 5 **Examinations.**

[For text of item A, see M.R]

B For certification of a person to operate a Class I, II, III, A, C, or D waste combustor, the examination shall be in three areas, divided as follows

[For text of subitems (1) to (3), see M R.]

[For text of items C to E, see M R]

[For text of subp 6, see M.R]

Subp 7 **Renewal.**

A A certified individual shall apply for certificate renewal 30 days prior to certificate expiration. Renewal certificates shall be issued by the commissioner when the commissioner receives the application, along with evidence that the person has, during the preceding three years, earned credit for attending training courses offered by the agency or other training courses approved by the commissioner as described in subpart 8, including personnel training described in part 7011 1275, for the number of hours as identified as follows.

(1) Class I, II, III, A, C, or D, 24 hours, and

[For text of subitem (2), see M R]

[For text of items B and C, see M.R.]

[For text of subps 8 and 9, see M.R]

Subp 10. **Certification deadlines.** All individuals employed on June 20, 1994, who require certification as described in this part shall obtain certification by June 20, 1996, or on completion of the normal start–up of a waste combustor, whichever is later.

Subp 11 **Recordkeeping.** A waste combustor owner or operator shall maintain a record of personnel who complete either the Environmental Protection Agency municipal waste combustor operator training course, or an equivalent course approved by the Minnesota Pollution Control Agency under subpart 8 The record shall include documentation of training completion

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1281 FULL OPERATOR CERTIFICATION.

Subpart 1 **Fully certified operator defined.** A "fully certified operator" means·

A a person who has obtained "certified municipal waste combustor examiner" certification as described in part 7011 1282;

B a person who has obtained both "provisional certification" and "operator certification" according to ASME QRO–1–1994, incorporated by reference in part 7011.1205, or

C a person who is a "fully certified operator" as described in part 7011 1284

Subp 2 **Changes at a facility.** If changes are made in equipment and/or operating procedures which the initial certification did not address, certificate holders shall demonstrate

detailed knowledge of these changes according to the conditions of the certificate held A change in the name or ownership of a facility shall not invalidate the operator certificate

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1282 CERTIFIED MUNICIPAL WASTE COMBUSTOR EXAMINER CERTIFICATE.

Subpart 1 **Criteria for a certified municipal waste combustor examiner.** To be certified as a certified municipal waste combustor examiner, employment claimed on the individual's application for certification must be verified by the individual's supervisor or personnel officer and the individual must

A hold a current certificate as defined in part 7011 1280, subpart 1,

B document a total of 60 months satisfactory employment experience in general industry, of which 36 months were at the level of a chief facility operator or shift supervisor, as defined in part 7011 1201, subparts 8 and 44, at a municipal waste combustor,

C be currently employed by a municipal waste combustor owner,

D possess a bachelor degree in engineering or a related field, or a Minnesota Department of Labor and Industry boiler license of chief engineer, Grade A or B,

E pass an oral examination as described in subpart 3, and

F identify the waste combustor facility for which the applicant seeks certification as a certified municipal waste combustor examiner

Subp 2 **Certification process for a certified municipal waste combustor examiner.**

A The commissioner shall review the application for certified municipal waste combustor examiner and determine the adequacy of information included in the application If the commissioner determines that additional information or documentation is necessary to assess the eligibility of the applicant, the commissioner shall notify the applicant The application shall be considered incomplete until the applicant provides the required information When the commissioner determines that the applicant has submitted a complete application, and has determined that the applicant has demonstrated a satisfactory compliance history as an operator at a municipal waste combustor, the commissioner shall schedule an oral examination of the applicant

B The commissioner shall issue a certificate to the applicant who successfully completes the examination process of subpart 3 The certified municipal waste combustor examiner's certificate is site–specific, and is not transportable The certificate shall expire five years after its issue date unless renewed Each certificate shall contain the following information

(1) identification as a certified municipal waste combustor examiner certificate,

(2) the certified individual's full name, and

(3) the name and location of the facility for which certification is given

Subp 3 **Examination for certified municipal waste combustor examiner.**

A The commissioner shall convene a board of examiners to conduct an oral examination of a certified municipal waste combustor examiner applicant

B The examination for certified municipal waste combustor examiner shall·

(1) test understanding of the content and procedures described in the waste combustor's operating manual that is required to be prepared for the facility by part 7011 1275, subpart 3,

(2) test comprehensive understanding of the duties of a certified examiner described in part 7011 1283 and how the applicant is prepared to carry out these duties; and

(3) require the applicant to describe the waste combustor facility's program for examinmg and awarding full certification, and describe how this program incorporates the requirements of parts 7011 1283 and 7011.1284

The board of examiners shall evaluate applicants for certified municipal waste combustor examiner based on the applicant's technical knowledge and understanding of integrated

plant operations An applicant's responses shall be graded as pass or fail All members of the board of examiners must pass the applicant if the certification is to be granted

C The board of examiners shall consist of at least three members The three members shall be a member of the Pollution Control Agency, a member of the municipal waste combustor industry, and a member who is or has been employed at a power operation facility using combustion and/or air pollution control technologies comparable to the facility where the applicant is employed

The commissioner may appoint additional board members if the facility for which the applicant seeks certification is complex and the commissioner determines that additional examiners will help the board determine the applicant's technical knowledge, problem-solving ability, and understanding of plant operations

Additional Pollution Control Agency representatives, a representative from the facility, a representative of an industry trade group, and a member of the public shall be allowed by the commissioner to observe the examination

Subp 4 **Renewal.** The commissioner shall issue renewal certified examiner certificates when an individual submits a written request to renew the certificate at least 30 days before the expiration of the certificate

If changes are made in equipment and/or operating procedures which the initial certification did not address, the individual shall submit written evidence that the change has been made, the individual has been trained, and the on-site certification program has been amended to include the changes The individual shall also submit evidence that the individual has, during the life of the certified municipal waste combustor operator certificate, maintained the individual's certification as required in part 7011 1280 If the individual applies for certificate renewal after the certified municipal waste combustor examiner certificate has expired, the commissioner shall schedule an examination according to part 7011 1282, subpart 3

Subp 5 **Sanctions.** The conditions of part 7011 1280, subpart 9, apply to any sanctions taken by the commissioner

Statutory Authority: *MS s 116.07*

History: *22 SR 1975*

7011.1283 DUTIES OF A CERTIFIED MUNICIPAL WASTE COMBUSTOR EXAMINER.

A certified municipal waste combustor examiner shall be responsible for the development, implementation, monitoring, and updating of an operator certification program specific to the municipal waste combustor for which the examiner has been certified The operator certification program shall be designed as a system of training and written and/or oral examination on the duties, knowledge, and responsibilities of municipal waste combustor unit operations, as described in the operating manual required in part 7011 1275, subpart 3 The certified examiner shall administer the examination of full operator candidates

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1284 FULLY CERTIFIED OPERATOR.

Subpart 1 **Scope.** A certified municipal waste combustor examiner may award the status of fully certified operator to an individual at a municipal waste combustor facility, provided the conditions of this part are met.

Subp. 2 **Criteria for a fully certified operator.** To be eligible as a fully certified operator, an individual must maintain a provisional certificate from ASME or a certificate described in part 7011 1280, and pass an examination administered by the waste combustor's certified municipal waste combustor examiner

The examination shall test comprehensive understanding of the content and procedures described in the waste combustor's operating manual that is required to be prepared for the facility by part 7011 1275, subpart 3

If changes are made in equipment and/or operating procedures which the initial certification did not address, certificate holders shall demonstrate to the facility's certified examin-

er detailed knowledge of these changes within six months after the change is made If the demonstration of knowledge has not been made within six months, the certificate shall expire

Subp 3 **Record of certified operators.** The waste combustor owner or operator shall maintain at the waste combustor facility for five years a record of the names of all personnel that the examiner has certified

This record shall contain the examination dates, the nature or content of the examination, the full name of the individual certified, the date of certification, and the signature of the certified examiner for that facility with the following certification

"I certify under penalty of law that, based on my examination of these persons, these persons have demonstrated the knowledge and skills that qualify these persons to be fully certified operators at (name of waste combustor facility) in accordance with the procedures of Minnesota Rules, parts 7011 1280 to 7011.1284."

Subp 3a **Record of ASME certified operators.** The waste combustor owner or operator shall maintain at the waste combustor facility for five years a record of the names of all personnel who have obtained provisional and/or full certification by ASME

Subp 4 **Inspection of records.** The owner or operator shall allow the commissioner to review all records related to the certification of operators, including the facility's program for the examination and certification of operators, the record required in subpart 3, the content of examinations, and the results of an individual's examination

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1285 OPERATING RECORDS AND REPORTS.

Subpart 1 **Scope.** The owner or operator of a waste combustor shall maintain records and submit reports as required in this part The owner or operator of a waste combustor required to obtain a permit under part 7007 0200, subpart 4, or 7007 0250, subpart 5, are also subject to the recordkeeping and reporting requirements in part 7007 0800, subparts 5 and 6 Class A, C, I, and II waste combustors shall maintain on site all submittals required by this part as paper copies for five years All other waste combustors shall retain records for a minimum of five years.

Subp 2 **Daily operating record.** The owner or operator shall maintain a daily record of the operation of the waste combustor The record shall contain

[For text of items A to I, see M R.]

J the reasons for exceeding any of the average emission rates, percent reductions, or operating parameters specified under part 7011 1260, subpart 6, item C, or the opacity limit and a description of corrective actions taken;

K. reasons for not obtaining the minimum number of hours of sulfur dioxide or nitrogen oxides emissions or operational data (carbon monoxide emissions, steam flow or alternative unit load measurement parameter as described in part 7011 1265, subpart 4a, particulate matter control device temperature) and a description of corrective actions taken,

L the date of the calibration of all signal conversion elements associated with steam flow monitoring as required in part 7011 1265, subpart 4,

M for waste combustors using an additive to comply with mercury or PCDD/PCDF emission limits, reasons for not maintaining the additive system operating parameter as determined in part 7011 1272, subpart 2, and descriptions of corrective actions taken, and

N for waste combustors using an additive to comply with mercury or PCDD/PCDF emission limits, reasons for not maintaining the additive mass feed rates as determined in part 7011 1272, subpart 1, and descriptions of corrective actions taken

Subp. 3 **Quarterly reports.** The owner or operator of a Class I, II, III, A, C, or D waste combustor shall submit quarterly reports to the commissioner within 30 days after the quarter ending December 30, March 30, June 30, and September 30 of each year The quarterly report may be submitted as a bound, paper copy or in an alternative format such as computer disk or CD–ROM The commissioner shall accept the submittal in the alternative format pro-

vided that the commissioner has given prior approval for the use of the alternative format in order that compatibility between the software and hardware configurations of the agency and the owner or operator of the waste combustor can be assured The report shall contain the following items

[For text of item A, see M R]

B sulfur dioxide, nitrogen oxide, and carbon monoxide emissions, the maximum waste combustor unit load level, and particulate matter control device temperatures as recorded by part 7011 1260, subpart 6, item C, and the daily maximum opacity reading as recorded by part 7011 1260, subpart 6, item B, subitem (1) The facility may choose to provide this information in tabular or graphic form. The graphs shall be prepared as follows

(1) the graph shall represent one operating parameter or pollutant,

(2) the applicable limit of the parameter or pollutant shall be indicated on the graph, and

(3) data shall be expressed in the same units as the applicable operating parameter or emissions limit,

[For text of item C, see M R]

D the identification of operating days when any of the average emission concentrations, percent reductions, operating parameters specified under part 7011.1260, subpart 6, item C, or 7011 1272, subpart 2, or the opacity level exceeded the applicable limits The report shall include the emission levels recorded during the exceedance, reasons for such exceedances as well as a description of corrective actions taken,

[For text of item E, see M R]

F the identification of operating days for which the minimum number of hours that emission concentrations, percent reductions, operating parameters specified under part 7011 1260, subpart 6, item C, or 7011 1272, subpart 2, or the opacity level have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken,

[For text of item G, see M R]

H the information required in subpart 2, items C, D, and E, summarized to reflect quarterly totals,

I a compliance certification as required in part 7007 0800, subpart 6, item C, and

J. if an additive is used to comply with mercury or PCDD/PCDF emission limits, the total additive used during the calendar quarter, as specified in part 7011 1272, subpart 3, item B, with supporting calculations

[For text of subp 4, see M R]

Subp 4a. [Repealed, 22 SR 1975]

[For text of subp 5, see M R]

Subp 6 **Performance test reports.** The owner or operator shall submit a report containing the results of performance tests conducted to determine compliance with waste combustor unit emission limits whenever performance testing is conducted. The report shall be submitted according to the conditions of part 7017 2035.

Statutory Authority: *MS s 116 07*

History: *22 SR 1975*

7011.1290 INCORPORATION OF NEW SOURCE PERFORMANCE STANDARD BY REFERENCE.

Code of Federal Regulations, title 40, part 60, subpart Eb, as amended, entitled "Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994" is adopted and incorporated by reference

Statutory Authority: *MS s 116.07*

History: *22 SR 1975*

7011.1305 STANDARDS OF PERFORMANCE FOR EXISTING SEWAGE SLUDGE INCINERATORS.

No owner or operator of an existing sewage sludge incinerator shall cause to be discharged into the atmosphere from the sewage sludge incinerator any gases which

[For text of items A and B, see M R]

C. contain particulate matter in excess of 0 1 gr/dscf corrected to 12 percent CO_2 if the incinerator has a burning capacity of greater than 2,000 pounds per hour

No owner or operator of an existmg sewage sludge incinerator shall cause to be discharged mto the atmosphere from the incinerator any gases which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 33 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–mmute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 33 percent.

No owner or operator of an existing sewage sludge incinerator shall operate such incinerator unless such incinerator utilizes auxiliary fuel burners that maintain a minimum temperature of 1,200 degrees Fahrenheit for a minimum retention time of 0 3 second or other method of odor control as approved by the commissioner

For the purposes of this part, "existmg sewage sludge incinerator" means a sewage sludge incinerator on which construction, modification, or reconstruction did not commence after June 11, 1973

Statutory Authority: *MS s 116 07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission pomts that are monitored by a continuous opacity momtoring system meeting the requirements of part 7017 1000, the amendments to this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.1310 STANDARDS OF PERFORMANCE FOR NEW SEWAGE SLUDGE INCINERATORS.

No owner or operator of a new sewage sludge incinerator shall cause to be discharged mto the atmosphere from the incinerator any gases which

A contain particulate matter in excess of 0 65 g/kg dry sludge mput (1 30 lb/ton dry sludge input), or

B exhibit 20 percent opacity or greater

No owner or operator of a new sewage sludge incinerator shall operate such incinerator unless such incinerator utilizes auxiliary fuel burners that maintain a minimum temperature of 1200 degrees Fahrenheit for a mimmum retention time of 0.3 second or other method of odor control as approved by the commissioner

For the purposes of this part, "new sewage sludge incinerator" means a sewage sludge incinerator on which construction, modification, or reconstruction commenced after June 11, 1973.

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.1405 STANDARDS OF PERFORMANCE FOR EXISTING AFFECTED FACILITIES AT PETROLEUM REFINERIES.

Subpart 1. **Fluid catalytic cracking unit catalyst regenerator and incinerator–waste heat boiler.** No owner or operator of an existing fluid catalytic cracking unit catalyst regenerator or its incinerator–waste heat boiler at a petroleum refinery shall cause to be discharged into the atmosphere from such regenerator or its mcmerator–waste heat boiler any gases which

A contain particulate matter in excess of 10 0 lb/1000 lb (10 0 kg/1000 kg) of coke burn–off in the catalyst regenerator; or

B exhibit greater than 30 percent opacity, except that 30 percent opacity may be exceeded for one six–minute period in any one–hour period An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 30 percent.

If auxiliary liquid or solid fossil fuels are burned in the fluid catalytic cracking unit incinerator–waste heat boiler, particulate matter in excess of that permitted by item A may be emitted provided that the incremental rate of particulate emissions shall not exceed 0 4

pounds per million Btu (0.72 grams per million cal) of heat input attributable to such liquid or solid fossil fuel

[For text of subp 2, see M R]

Subp 3 **Indirect heating equipment.** No owner or operator of existing indirect heating equipment at a petroleum refinery shall cause to be discharged into the atmosphere from such equipment any gases which

A contain particulate matter in excess of 0 4 pounds per million Btu (0 72 grams per million cal) heat input; or

B exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent.

Subp 4 **Definition.** For the purposes of this part, "existing" means equipment on which construction, modification, or reconstruction did not commence after June 11, 1973

Statutory Authority: *MS s 116 07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to subparts 1 and 3 of this part adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.1410 STANDARDS OF PERFORMANCE FOR NEW AFFECTED FACILITIES AT PETROLEUM REFINERIES.

Subpart 1 **Fluid catalytic cracking unit catalyst regenerator and incinerator–waste heat boiler.** No owner or operator of a new fluid catalytic cracking unit catalyst regenerator or its incinerator–waste heat boiler at a petroleum refinery shall cause to be discharged into the atmosphere from such regenerator or incinerator–waste heat boiler any gases which

A contain particulate matter in excess of 1.0 lb/1000 lb (1 0 kg/1000 kg) of coke burn–off in the catalyst regenerator; or

B exhibit greater than 30 percent opacity, except that 30 percent opacity may be exceeded for one six–minute period in any one–hour period An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 30 percent

If auxiliary liquid or solid fossil fuels are burned in the fluid catalytic cracking unit incinerator–waste heat boiler, particulate matter in excess of that permitted by item A may be emitted provided that the incremental rate of particulate emissions shall not exceed 0 1 pound per million Btu of heat input attributable to such liquid or solid fossil fuel.

No owner or operator of a new fluid catalytic cracking unit catalyst regenerator at a petroleum refinery shall cause to be discharged into the atmosphere from such regenerator any gases which contain carbon monoxide in excess of 0 050 percent by volume.

[For text of subp 2, see M R.]

Subp 3 **Indirect heating equipment.** Indirect heating equipment.

[For text of item A, see M R]

B No owner or operator of new indirect heating equipment at a petroleum refinery shall cause to be discharged into the atmosphere from such equipment any gases which

(1) contain particulate matter in excess of 0 4 pounds per million Btu (0 72 grams per million cal) heat input, or

(2) exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 60 percent opacity An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 60 percent

C The owner or operator of a new steam generating unit of more than 250 million Btu per hour (63 million cal per hour) heat input at a petroleum refinery shall comply with the following requirements

[For text of subitem (1), see M R]

(2) No gases shall be discharged which exhibit greater than 20 percent opacity, except for one six–minute period per hour of not more than 27 percent opacity. An exceedance of this opacity standard occurs whenever any one–hour period contains two or more six–minute periods during which the average opacity exceeds 20 percent or whenever any one–hour period contains one or more six–minute periods during which the average opacity exceeds 27 percent

[For text of subitem (3), see M.R.]

Subp 4 **Definition.** For the purposes of this part, "new" means equipment on which construction, modification, or reconstruction commenced after June 11, 1973

Statutory Authority: *MS s 116 07*

History: *22 SR 1237, 23 SR 145*

NOTE Effective date For emission points that are monitored by a continuous opacity monitoring system meeting the requirements of part 7017 1000, the amendments to subparts 1 and 3 of this part, adopted at 23 SR 145 on July 20, 1998, apply at the start of the first full quarterly reporting period after the data acquisition system is reprogrammed or replaced, but no later than January 1, 1999

7011.1415 EXEMPTIONS.

The combustion of process upset gas in a flare, or the combustion in a flare of process gas or fuel gas which is released to the flare as a result of relief valve leakage, is exempt from the standards of performance set forth in these parts.

The standards of performance promulgated in parts 7011 0500 to 7011 0530 for indirect heating equipment shall not apply to indirect heating equipment at a petroleum refinery Only those standards of performance for indirect heating equipment set forth in these parts shall apply to such equipment.

Statutory Authority: *MS s 116.07*

History: *22 SR 1237*

7011.1600 DEFINITIONS.

As used in parts 7011 1600 to 7011 1700 the following words shall have the meanings defined herein:

A Acid mist "Acid mist" means sulfuric acid mist as measured by Method 8

B Sulfuric acid production unit "Sulfuric acid production unit" means any emission facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds

C Existing sulfuric acid production unit "Existing sulfuric acid production unit" means a sulfuric acid production unit on which construction, modification, or reconstruction did not commence after August 17, 1971

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.1705 STANDARDS OF PERFORMANCE FOR EXISTING NITRIC ACID PRODUCTION UNITS.

Prior to July 1, 1977, no owner or operator of an existing nitric acid production unit shall cause to be discharged into the atmosphere from any nitric acid production unit any gases which contain nitrogen oxides, expressed as NO_2, in excess of 50 pounds per ton of acid produced (25 kg per metric ton), the production being expressed as 100 percent nitric acid

After July 1, 1977, no owner or operator of an existing nitric acid production unit shall cause to be discharged into the atmosphere from any nitric acid production unit any gases which contain nitrogen oxides, expressed as NO_2, in excess of 40 pounds per ton of acid produced (20 kg per metric ton), the production being expressed as 100 percent nitric acid

No owner or operator of an existing nitric acid production unit shall cause to be discharged into the atmosphere from any mtric acid production unit any gases which exhibit greater than ten percent opacity

For the purposes of this part, "existing nitric acid production unit" means a nitric acid production unit on which construction, modification, or reconstruction did not commence after August 17, 1971

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.2200 [Repealed, 22 SR 1237]

7011.2205 [Repealed, 22 SR 1237]

7011.2210 [Repealed, 22 SR 1237]

7011.2220 Subpart 1 [Repealed, 22 SR 1237]

Subp 2 [Repealed, 22 SR 1237]

Subp 3 [Repealed, 22 SR 1237]

7011.2300 STANDARDS OF PERFORMANCE FOR STATIONARY INTERNAL COMBUSTION ENGINES.

Subpart 1 **Visible air contaminants.** No owner or operator of any stationary internal combustion engine shall cause or permit the emission of visible air contaminants from the engine in excess of 20 percent opacity once operating temperatures have been attained

Subp 2 **Sulfur dioxide.** No owner or operator of any stationary internal combustion engine shall cause to be discharged into the atmosphere from the engine any gases which contain sulfur dioxide in excess of 0 5 pounds per million Btu actual heat input unless an alternative limit is established in an air emission permit after demonstration through modeling of compliance with the sulfur dioxide standards in part 7009 0080.

[For text of subp 3, see M R]

Statutory Authority: *MS s 116 07*

History: *22 SR 1237*

7011.7340 WOOD FURNITURE MANUFACTURING OPERATIONS.

Code of Federal Regulations, title 40, part 63, subpart JJ, as amended, entitled "National Emission Standards for Wood Furniture Manufacturing Operations," is adopted and incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, sections 63 804(f)(4)(iv)(D) and (E), 63 804(g)(4)(iii)(c), 63 804(g)(4)(vi), 63 804(g)(6)(vi), 63 805(a), 63 805(d)(2)(v), and 63.805(e)(1), are not delegated to the commissioner and must be made by the administrator.

Statutory Authority: *MS s 116 07*

History: *22 SR 1877*

7011.7360 SHIPBUILDING AND SHIP REPAIR OPERATIONS.

Code of Federal Regulations, title 40, part 63, subpart II, as amended, entitled "National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)," is adopted and incorporated by reference

Statutory Authority: *MS s 116 07*

History: *22 SR 1877*

7011.7380 PRINTING AND PUBLISHING INDUSTRY.

Code of Federal Regulations, title 40, part 63, subpart KK, as amended, entitled "National Emission Standards for the Printing and Publishing Industry," is adopted and incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, approval of alternate test method for organic hazardous air pollutant content determination under section 63 827(b) and approval of alternate test method for volatile matter determination under section 63.827(c) are not delegated to the commissioner and must be made by the administrator

Statutory Authority: *MS s 116.07*

History: *22 SR 1877*

7011.7400 OFF–SITE WASTE OPERATIONS.

A Code of Federal Regulations, title 40, part 63, subpart DD, as amended, entitled "National Emission Standards for Hazardous Air Pollutants from Off–site Waste and Recovery Operations," is adopted and incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 63 694 are not delegated to the commissioner and must be made by the administrator

B Code of Federal Regulations, title 40, part 63, subpart OO, as amended, entitled "National Emission Standards for Tanks–Level 1," is adopted and incorporated by reference

C Code of Federal Regulations, title 40, part 63, subpart PP, as amended, entitled "National Emission Standards for Containers," is adopted and incorporated by reference

D Code of Federal Regulations, title 40, part 63, subpart QQ, as amended, entitled "National Emission Standards for Surface Impoundments," is adopted and incorporated by reference.

E Code of Federal Regulations, title 40, part 63, subpart RR, as amended, entitled "National Emission Standards for Individual Dram Systems," is adopted and incorporated by reference

F Code of Federal Regulations, title 40, part 63, subpart VV, as amended, entitled "National Emission Standards for Oil–Water Separators and Organic–Water Separators," is adopted and incorporated by reference.

Statutory Authority: *MS s 116 07*

History: *22 SR 1877*

7011.7420 GROUP I POLYMERS AND RESINS.

Code of Federal Regulations, title 40, part 63, subpart U, as amended, entitled "National Emission Standards for Hazardous Air Pollutant Emissions. Group I Polymers and Resins," is adopted and incorporated by reference

Statutory Authority: *MS s 116 07*

History: *22 SR 1877*

7011.7440 GROUP IV POLYMERS AND RESINS.

Code of Federal Regulations, title 40, part 63, subpart JJJ, as amended, entitled "National Emission Standards for Hazardous Air Pollutant Emissions. Group IV Polymers and Resins," is adopted and incorporated by reference.

Statutory Authority: *MS s 116.07*

History: *22 SR 1877*