

1 **Minnesota Pollution Control Agency**
2 **Air Quality Division**

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3 **Adopted Permanent Rules Relating to Air Quality; Standards of Performance for**
4 **Stationary Sources**

HEARINGS

5 **7011.0010 APPLICABILITY OF STANDARDS OF PERFORMANCE.**

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

7 Subp. 4. **Opacity standards.** The opacity standards in an applicable requirement
8 apply at all times except during periods of start-up, shutdown, and malfunction, and as
9 otherwise provided in an applicable requirement or compliance document as defined in
10 parts 7007.0100 and 7017.2005. The exemption for periods of start-up, shutdown, and
11 malfunction applies only if:

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

19 B. the owner or operator complies with parts 7019.1000 and 7019.2000 in the event
20 of a shutdown, breakdown, or malfunction; and

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

23 Subp. 5. **Transition to new opacity averaging method.** All permits issued before the
24 effective date of this rule are amended to reflect the amendments to this chapter
25 adopted on the effective date of this rule that are related to opacity averaging and
26 excursions.

1 **7011.0105 VISIBLE EMISSION RESTRICTIONS FOR EXISTING FACILITIES.**

2 No owner or operator of an existing emission facility to which parts 7011.0100 to
3 7011.0115 are applicable shall cause to be discharged into the atmosphere from the
4 facility any gases which exhibit greater than 20 percent opacity, except for one
5 six-minute period per hour of not more than 33 percent opacity. An exceedance of this
6 opacity standard occurs whenever any one-hour period contains two or more
7 six-minute periods during which the average opacity exceeds 20 percent or whenever
8 any one-hour period contains one or more six-minute periods during which the average
9 opacity exceeds 33 percent.

10 **7011.0510 STANDARDS OF PERFORMANCE FOR EXISTING INDIRECT**
11 **HEATING EQUIPMENT.**

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

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

20 **7011.0515 STANDARDS OF PERFORMANCE FOR NEW INDIRECT HEATING**
21 **EQUIPMENT.**

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

23 Subp. 2. **Opacity.** No owner or operator of new indirect heating equipment of greater
24 than 250 million Btu per hour rated heat input shall cause to be discharged into the
25 atmosphere from said equipment any gases which exhibit greater than 20 percent
26 opacity, except for one six-minute period per hour of not more than 27 percent opacity.

1 An exceedance of this opacity standard occurs whenever any one-hour period contains
2 two or more six-minute periods during which the average opacity exceeds 20 percent or
3 whenever any one-hour period contains one or more six-minute periods during which
4 the average opacity exceeds 27 percent.

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

13 **7011.0610 STANDARDS OF PERFORMANCE FOR FOSSIL-FUEL-BURNING**
14 **DIRECT HEATING EQUIPMENT.**

15 **Subpart 1. Particulate limitations.** Particulate limitations:

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

18 (1) contain particulate matter in excess of the limits allowed by parts 7011.0700
19 to 7011.0735; or

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

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

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

1 **7011.0710 STANDARDS OF PERFORMANCE FOR PRE-1969 INDUSTRIAL**
2 **PROCESS EQUIPMENT.**

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

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

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

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

13 **7011.0805 STANDARDS OF PERFORMANCE FOR EXISTING PORTLAND**
14 **CEMENT PLANTS.**

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

17 A. contain particulate matter in excess of the limits established by parts 7011.0700
18 to 7011.0735; or

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

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

7011.0805

1 **7011.1305 STANDARDS OF PERFORMANCE FOR EXISTING SEWAGE SLUDGE**
2 **INCINERATORS.**

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

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

6 C. contain particulate matter in excess of 0.1 gr/dscf corrected to 12 percent CO₂ if
7 the incinerator has a burning capacity of greater than 2,000 pounds per hour.

8 No owner or operator of an existing sewage sludge incinerator shall cause to be
9 discharged into the atmosphere from the incinerator any gases which exhibit greater
10 than 20 percent opacity, except for one six-minute period per hour of not more than 33
11 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour
12 period contains two or more six-minute periods during which the average opacity
13 exceeds 20 percent or whenever any one-hour period contains one or more six-minute
14 periods during which the average opacity exceeds 33 percent.

15 No owner or operator of an existing sewage sludge incinerator shall operate such
16 incinerator unless such incinerator utilizes auxiliary fuel burners that maintain a
17 minimum temperature of 1,200 degrees Fahrenheit for a minimum retention time of 0.3
18 second or other method of odor control as approved by the commissioner.

19 **7011.1405 STANDARDS OF PERFORMANCE FOR EXISTING AFFECTED**
20 **FACILITIES AT PETROLEUM REFINERIES.**

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

26 A. contain particulate matter in excess of 10.0 lb/1000 lb (10.0 kg/1000 kg) of coke
27 burn-off in the catalyst regenerator; or

7011.1405

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

5 If auxiliary liquid or solid fossil fuels are burned in the fluid catalytic cracking unit
6 incinerator-waste heat boiler, particulate matter in excess of that permitted by item A
7 may be emitted provided that the incremental rate of particulate emissions shall not
8 exceed 0.4 pounds per million Btu (0.72 grams per million cal) of heat input attributable
9 to such liquid or solid fossil fuel.

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

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

14 A. contain particulate matter in excess of 0.4 pounds per million Btu (0.72 grams
15 per million cal) heat input; or

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

21 **7011.1410 STANDARDS OF PERFORMANCE FOR NEW AFFECTED FACILITIES**
22 **AT PETROLEUM REFINERIES.**

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

7011.1410

1 the average opacity exceeds 20 percent or whenever any one-hour period contains one
2 or more six-minute periods during which the average opacity exceeds 60 percent.

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

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

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

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

14 **7017.2001 APPLICABILITY.**

15 Subpart 1. **Applicability.** For the purpose of conducting a performance test as
16 required by an applicable requirement or compliance document or as a data submittal
17 engineering test, parts 7017.2001 to 7017.2060 apply unless more stringent requirements
18 or equivalent procedures are mandated by an applicable requirement or compliance
19 document. However, for the purpose of conducting a data submittal engineering test,
20 part 7017.2025 does not apply and the operating conditions for the test shall be defined
21 in the test plan. If the commissioner determines that a data submittal engineering test
22 was not conducted at appropriate operating conditions for the type of data submittal,
23 the commissioner shall declare the results invalid for their intended purpose unless the
24 results can be adjusted and made representative using a scaling factor or engineering
25 judgment or, in the case of a permit application, the permit contains an operating limit
26 based on the tested conditions.

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

2 **7017.2005 DEFINITIONS.**

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

4 Subp. 1a. **Applicable requirement.** "Applicable requirement" has the meaning given
5 in part 7007.0100, subpart 7.

6 Subp. 2. **Compliance document.** "Compliance document" means a permit, stipulation
7 agreement, administrative penalty order, administrative order, compliance agreement,
8 schedule of compliance, consent order, consent decree, or variance issued by the agency
9 or EPA to control air pollution.

10 Subp. 2a. **Data submittal engineering test.** "Data submittal engineering test" means a
11 performance test that is conducted voluntarily by the owner or operator of the emission
12 facility for the purpose of submitting the results to support a permit application,
13 emission inventory submittal, or any other type of data submittal. This does not include
14 voluntary retests conducted following a failure to demonstrate compliance or
15 performance tests conducted voluntarily in order to relax an operating limit in
16 accordance with part 7017.2025, subpart 3b.

17 [For text of subps 3 and 4, see M.R.]

18 Subp. 5. **Test plan.** "Test plan" means the document which describes the objectives of
19 a performance test, how the emissions unit will be operated during the performance
20 test, how operating conditions will be monitored and recorded, which test methods will
21 be used, and any other specific requirements of the applicable requirement or
22 compliance document.

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

24 Subp. 8. **Worst case conditions.** "Worst case conditions" means the mode of operation
25 of an emissions unit, including the air pollution control equipment, that is allowed
26 under the applicable requirement or compliance document and which is known,

1 through performance test data or mass balance calculation, to give the highest emission
2 rate for an air pollutant within the allowed range of operating conditions. The type of
3 operating conditions included in this definition shall be limited to the process or
4 operating rate and any operational parameters that are regulated by the applicable
5 requirement or compliance document.

6 **7017.2015 INCORPORATION OF FEDERAL TESTING REQUIREMENTS BY**
7 **REFERENCE.**

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

9 Subp. 4. **Document submission.** All requests, reports, applications, submittals, and
10 other communications to the administrator pursuant to subparts 2 and 3 must be
11 submitted to the person identified in part 7017.2018, except that for those sections
12 identified in this part as not delegated to the commissioner, the request, report,
13 application, or submittal must be submitted to the EPA administrator.

14 **7017.2018 SUBMITTALS.**

15 All notifications, applications, or submittals required under parts 7017.2015 to
16 7017.2060 shall be sent to the Supervisor, Compliance Determination Unit, Compliance
17 and Enforcement Section, Air Quality Division, Minnesota Pollution Control Agency,
18 520 Lafayette Road, St. Paul, Minnesota 55155-4194.

19 The performance test report required by parts 7017.2025, subpart 4, item A, subitem
20 (3), and 7017.2035, subpart 2, shall be submitted as a bound, paper copy with the signed
21 certification statements required by part 7017.2040. However, as an alternative to the
22 microfiche copy of the performance test report, the commissioner shall accept the
23 submittal in a format such as computer disk or CD-ROM, provided that the
24 commissioner has given prior approval for the use of the alternative format in order that
25 compatibility between the software and hardware configurations of the agency and the
26 owner or operator of the emission facility can be assured. Similarly, performance test

1 notifications and test plans shall be accepted in the type of format referenced above or
2 by electronic mail subject to the commissioner's prior approval as described above.

3 **7017.2020 PERFORMANCE TESTS GENERAL REQUIREMENTS.**

4 Subpart 1. **Testing required.** The owner or operator of an emission facility shall
5 arrange to conduct a performance test to determine the characteristics and amount of
6 emissions of air pollutants from any emission facility at the times required by an
7 applicable requirement or compliance document and at additional times if the
8 commissioner requests a performance test in order to:

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

10 B. determine compliance with an applicable requirement or compliance document;

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

12 E. determine the compliance status of an emission facility following a modification
13 to the emission facility that the commissioner determines could cause an increase in the
14 amount of emissions of any air pollutant from that facility;

15 F. determine the relative accuracy of a continuous emissions monitoring system; or

16 G. quantify the emissions from an emission facility where the commissioner has
17 determined a possible environmental or public health concern.

18 EPA may request a performance test under this part for the reasons listed in items A
19 to G and may make the decisions that the commissioner makes under parts 7017.2001 to
20 7017.2060 and any other Minnesota rule or statute for that performance test. EPA's
21 authority to require performance testing under its own regulations or under the Clean
22 Air Act is not affected by this part.

23 Subp. 2. **Testing company.** The performance test shall be conducted by a testing
24 company unless a compliance document allows the owner or operator to conduct the
25 performance test or to contract with an alternative entity that does not meet the criteria

1 of the definition of testing company, or unless the agency, EPA, or any authorized
2 employee or agent of the agency or EPA is conducting the performance test.

3 [For text of subp 3, see M.R.]

4 Subp. 4. **Verification of test results.** The results of a performance test are not final
5 until a complete report, as defined in part 7017.2035, subpart 3, is submitted and the
6 commissioner gives written verification of the compliance status of the emission facility.
7 Upon verification of the test results, the duration of the compliance status that the
8 performance test determines for the emission facility begins with the date of the
9 performance test. Nothing in this subpart prevents the use of any evidence to establish
10 the existence of a violation before the date of the performance test, or excuses
11 noncompliance between the date of the performance test and the commissioner's
12 written verification of it.

13 Subp. 5. **Test runs.** Each performance test shall consist of at least three separate test
14 runs using the applicable test method, except that one test run shall be required for
15 opacity determination. However, the commissioner shall require more test runs to be
16 conducted if the applicable requirement or compliance document requires additional
17 test runs or determination of emissions at more than one process or operating condition.

18 Data reduction for opacity shall be conducted in accordance with part 7017.2060,
19 subparts 5 and 6. For all other pollutants, the arithmetic mean of the test runs is the
20 result of the performance test. In the event that a sample is accidentally lost or
21 conditions occur in which one of three test runs must be discontinued because of forced
22 shutdown, failure of an irreplaceable portion of the sample train, extreme
23 meteorological conditions, or other circumstances beyond the control of the owner or
24 operator and the testing company, compliance may, upon the commissioner's approval,
25 be determined using the arithmetic mean of the two remaining test runs. The owner or
26 operator shall document in the test report all reasons for excluding a test run or failing
27 to conduct a test run.

1 Subp. 6. **Evidence of noncompliance.** The results of a performance test that have
2 been rejected or deemed incomplete or indeterminate by the commissioner due to
3 failure to comply with parts 7017.2001 to 7017.2060 and performance tests which are not
4 subject to parts 7017.2001 to 7017.2060 may still be used in establishing violations
5 pursuant to part 7017.0100 if they represent credible evidence of such violations. This
6 includes, but is not limited to, results of tests:

7 A. that were started but abandoned before completing all the required test runs;

8 B. submitted without the required notification or test plan;

9 C. that are incomplete due to lack of emission facility operating data in the test
10 report; and

11 D. conducted under unrepresentative operating conditions or conditions that
12 deviated from the test plan.

13 **7017.2025 OPERATIONAL REQUIREMENTS AND LIMITATIONS.**

14 Subpart 1. **Scope.** This part specifies criteria that the commissioner will use to
15 determine which operating parameters, if any, will be subject to limitations based upon
16 the mode of operation during a performance test. Operations during periods of start-up,
17 shutdown, and malfunction shall not constitute representative conditions of
18 performance tests unless otherwise specified in an applicable requirement or
19 compliance document.

20 Subp. 2. **Operating conditions for performance testing.** The performance test shall
21 be conducted at worst case conditions for each air pollutant that is required to be tested
22 unless:

23 A. the applicable requirement or compliance document specifies alternative
24 operating conditions for performance testing;

25 [For text of items B to D, see M.R.]

1 Subp. 3. **Compliance demonstrated at tested conditions.** Upon the commissioner's
2 written notice that the emission facility has demonstrated compliance under the
3 conditions of the performance test, the owner or operator of the emission facility shall
4 operate the affected emissions unit as specified in item A, B, C, or D, unless another
5 performance test is conducted at alternative conditions and the commissioner gives
6 written notification that the performance test demonstrated compliance at those
7 conditions. This subpart does not apply to performance test runs for pollutants for
8 which the owner or operator maintains a continuous emission monitor or continuous
9 opacity monitor that meets the requirements of part 7017.1000.

10 A. If the owner or operator did not conduct the performance test at worst case
11 conditions as required, or elected to conduct the performance test under alternative
12 conditions under subpart 2, item C, the affected emissions unit shall not be operated at a
13 process rate, operating rate, or regulated operating condition that is closer to the worst
14 case conditions than the actual conditions of the performance test. The owner or
15 operator of the emission facility shall maintain at the emission facility adequate records
16 to demonstrate continuous compliance with these operating condition limitations.

17 B. If the owner or operator conducted the performance test under the conditions
18 specified in subpart 2, item A, the owner or operator shall comply with any operational
19 limitations imposed by the applicable requirement or compliance document.

20 C. If the owner or operator conducted the performance test at the maximum
21 achievable process or operating rate under subpart 2, item B, the emissions unit may not
22 be operated at a higher process or operating rate than was recorded during the
23 performance test.

24 D. If the owner or operator conducted the performance test at worst case
25 conditions, no new operating limits are imposed by this part but the owner or operator
26 shall comply with any applicable requirement or compliance document. When the worst

1 case testing condition is defined in terms of an operating rate for the affected emissions
2 units, no new operating rate limit may be imposed by this part if the performance test
3 was conducted at 90 percent or greater of the defined worst case condition.

4 If the owner or operator conducted the performance test under subpart 2, item D, no
5 operational limitations will be imposed. However, if the performance test was
6 conducted at less than 50 percent of rated capacity, the commissioner will reject the
7 results of the performance test.

8 Subp. 3a. **Compliance with new operating limits.** If a new operating limit is imposed
9 pursuant to subpart 3, it shall be implemented according to items A to C, unless
10 otherwise defined in an applicable requirement or compliance document.

11 A. For operating rate limits, the new limit shall be expressed as an eight-hour block
12 average calculated by totaling total throughput, input, or output as applicable during
13 the eight-hour period and dividing by the total operating time during the eight-hour
14 period. Periods of downtime of 15 or more minutes shall not be counted as operating
15 time. The commissioner may shorten the averaging time or modify the calculation
16 method in cases where the operating mode of the affected emissions unit is not
17 continuous or consistent and in cases where the results of the performance test were
18 greater than 80 percent of the applicable limits.

19 B. For operating rate limits imposed following a performance test where the results
20 were less than or equal to 80 percent of the value of the applicable emission limits for all
21 of the air pollutants that were required to be tested, the new limit shall be set at 110
22 percent of the tested rate except as otherwise provided in this item. The tested rate is the
23 average of the operating rates recorded during the required number of test runs. The
24 commissioner may set the new operating limit at 100 percent of the tested rate if the new
25 limit would otherwise conflict with an existing operating limit or the description of the
26 emission unit in the applicable air emission permit or if engineering judgment indicates

1 that increasing the allowable operating rate would cause a likely violation of an
2 emission limit.

3 C. For new operating limits other than operating rate limits, the averaging time
4 and any extension of the range of values shall be defined in the test plan based upon the
5 type of emissions unit or air pollution control equipment affected, the parameter being
6 monitored, the accuracy of the monitoring equipment, the frequency and method of
7 monitoring, and any specific requirements defined in an applicable requirement or
8 compliance document.

9 Subp. 3b. **Relaxation of operating limits by retesting.** The owner or operator of the
10 emission facility may conduct a retest at alternate operating conditions in order to relax
11 an operating limit set pursuant to subpart 3. The retest shall be subject to parts
12 7017.2001 to 7017.2060. The owner or operator must submit the test results to the
13 commissioner and identify what the new operating conditions will be and how
14 compliance with those new conditions will be monitored. The owner or operator shall
15 comply with any relaxed conditions established under this subpart.

16 Subp. 4. **Failure to demonstrate compliance.**

17 A. Upon the commissioner's written notice that the emission facility has failed to
18 demonstrate compliance with an applicable emission limit, the owner or operator of the
19 emission facility, unless an alternative schedule is given in an applicable requirement or
20 compliance document, shall:

21 (1) conduct a retest within 30 days of receipt of the commissioner's written
22 notice;

23 (2) submit to the commissioner written notice of testing, submit a test plan for
24 the retest, and schedule a pretest meeting at least 21 days in advance of the date of the
25 retest. The pretest meeting shall be held at least seven days prior to the date of the retest,
26 except that a shorter period shall be allowed if the commissioner has approved a test
27 notification of less than 30 days; and

1 (3) submit a complete report of the results of the retest and a microfiche version
2 of the report to the commissioner according to the requirements of part 7017.2035.

3 B. The owner or operator may receive an extension to the schedule in item A if one
4 of the following special circumstances applies:

5 (1) seasonal or temporary shutdown of the affected emissions units;

6 (2) malfunction or breakdown of the affected emissions units, unless the
7 commissioner determines that a retest under such conditions is warranted in order to
8 determine the effect of the malfunction or breakdown on emissions or where such
9 conditions are representative of past operation of the emissions units;

10 (3) weather conditions that prevent using the applicable test methods or prevent
11 operation of the affected emission units at the required operating conditions;

12 (4) any other conditions beyond the control of the owner or operator that
13 prevent using the applicable test methods or prevent operation of the affected emissions
14 units at the required operating conditions;

15 (5) any other condition beyond the control of the owner or operator that
16 prevents completion of a retest within the required schedule; or

17 (6) the owner or operator accepts that the retest would not demonstrate
18 compliance and submits a compliance plan to the commissioner on or before the
19 deadline for conducting the retest and the commissioner gives written approval of the
20 compliance plan.

21 C. Any request for an extension of the time schedule shall be submitted to the
22 commissioner in writing by the owner or operator prior to the date by which retesting is
23 required. The request shall specify the reason why the extension is needed, include an
24 alternative retest schedule, and include a detailed summary of the measures the owner
25 or operator will take to bring the affected emission unit into compliance. The
26 commissioner shall grant the request for extension if the commissioner finds that one or

1 more of the special conditions in item B apply. If the commissioner grants an extension,
2 the owner or operator shall implement the alternative retest schedule and compliance
3 measures. A requested extension shall not be effective unless the commissioner has
4 given written approval of the extension. The commissioner shall not extend a retest date
5 more than 30 days after the start-up, completion of maintenance, seasonal weather
6 change, or other improvement in conditions occurs under item B, subitems (1) to (4).
7 The commissioner shall not extend a retest date under item B, subitem (5), for more than
8 30 days.

9 Subp. 5. **Failure of retest.** If a retest has been conducted under subpart 4 and the
10 commissioner provides written notice to the owner or operator of the emission facility
11 that the retest provides a second demonstration of noncompliance with an applicable
12 emission limit, the owner or operator shall shut down the affected emissions units
13 unless items A to C of this subpart apply.

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

15 Subp. 6. **Agency tests.** Upon request of the agency or the commissioner, the owner or
16 operator of an emission facility shall allow the agency or EPA, or any authorized
17 employee or agent of the agency or EPA, to enter upon the premises of the owner or
18 operator for the purposes of conducting performance tests. The owner or operator shall
19 provide performance testing facilities that enable the agency or its employees or agents
20 to conduct performance tests, including:

21 A. sampling ports adequate for the applicable test methods;

22 B. safe sampling platforms;

23 C. safe access to sampling platforms; and

24 D. utilities for sampling and testing equipment.

25 The owner or operator shall operate the emission facility at worst case conditions or
26 other conditions as requested by the commissioner or EPA, and shall provide assistance
27 in process monitoring and process material sampling as requested.

1 **7017.2030 PERFORMANCE TEST PRETEST REQUIREMENTS.**

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

3 Subp. 2. **Submittal and approval of test plan.** The owner or operator of the emission
4 facility shall submit to the commissioner a test plan with or in advance of the test
5 notification required under subpart 1 or in response to the commissioner's request for
6 supplemental permit application information. If the proposed test plan does not contain
7 sufficient or accurate enough detail to ensure that the performance test meets the
8 requirements of the applicable requirement or compliance document, the commissioner
9 shall ask for an updated test plan to be submitted or shall write a test plan in place of
10 the submitted document.

11 The commissioner shall give written approval of the test plan when the commissioner
12 determines that it meets the requirements of parts 7017.2001 to 7017.2060. Written
13 approval means any signed letter, note, or facsimile transmission which states that a
14 given test plan may be used during a specific performance test. The commissioner shall
15 reject the results of a performance test if it was conducted without written approval of
16 the test plan or if no test plan was submitted.

17 Subp. 3. **Format and content of test plan.** The test plan shall be submitted in the
18 following format and include, as a minimum, the following elements:

19 A. Part I. General information:

- 20 (1) name and address of emission facility;
- 21 (2) name, title, telephone number, and facsimile number of contact person at
22 emission facility;
- 23 (3) permit number or name of other applicable compliance document;
- 24 (4) reason for testing;
- 25 (5) schematic drawing of stack and sample ports;

1 (6) location of plant; and

2 (7) name, contact person, telephone number, and facsimile number for testing
3 company contracted to conduct the test.

4 B. Part II. Testing requirements:

5 (1) list of the emission units, as identified in the applicable requirement or
6 compliance document, and pollutants to be tested, the emission limit for each pollutant,
7 and the applicable rule or regulation for each emission limit; and

8 (2) description of procedure for fuel sampling and analysis, where applicable.

9 [For text of item C, see M.R.]

10 D. Part IV. Test methods:

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

12 (3) reference to any applicable requirement or compliance document requiring
13 use of specific methods or procedures;

14 [For text of subitems (4) and (5), see M.R.]

15 [For text of item E, see M.R.]

16 Subp. 4. **Pretest meeting.** The owner or operator of the emission facility shall contact
17 the supervisor of the compliance determination unit to schedule a pretest meeting to be
18 held between authorized employees of the agency and the owner or operator of the
19 emission facility, with optional representation by the testing company. The pretest
20 meeting shall be held at least seven days prior to the performance test date except that a
21 shorter period shall be allowed if the commissioner has approved a test notification of
22 less than 30 days. If the commissioner determines that an in-person meeting is not
23 necessary, the pretest meeting will be conducted by telephone conference call unless the
24 owner or operator of the emission facility requests an in-person meeting.

25 **7017.2035 PERFORMANCE TEST REPORTING REQUIREMENTS.**

1 Subpart 1. **Submittal of performance test results.** The owner or operator of the
2 emission facility shall submit a test report and any additional information required by
3 the applicable requirement, compliance document, or test plan. A report shall be
4 submitted for any performance test that was required pursuant to part 7017.2020,
5 subpart 1, whether or not the test data indicates compliance with the applicable
6 emission limits or operating conditions and whether or not the test was completed
7 according to the approved test plan.

8 Subp. 2. **Submittal schedule.** The performance test report shall be postmarked or
9 received within 45 days following completion of the performance test unless an
10 alternate schedule is given in the applicable compliance document. The owner or
11 operator of the emission facility may request in the test plan that the submittal deadline
12 be extended by up to 15 days if the complexity of the test schedule or the laboratory
13 analysis is such that submittal within 45 days is impractical.

14 The owner or operator of the emission facility shall provide to the commissioner a
15 microfiche copy of the performance test report to be postmarked or received within 60
16 days of the deadline for submittal of the test report. The complete permit file number,
17 complete emission facility name, and exact date of testing shall be provided.

18 Subp. 3. **Complete report.** The report shall include the following elements:

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

20 E. Operating parameters: readings of discrete data from monitoring instruments
21 must be recorded at least every 15 minutes or other reasonable time interval as
22 approved by the commissioner during the test and strip charts or retrieved electronic
23 data from continuous monitors must be included in the test report.

24 [For text of subitems (1) to (4), see M.R.]

25 F. Maintenance: description, including dates, of all maintenance and operational
26 inspections, including major cleaning operations and replacement, repair, or

1 modification of functional components of process or control equipment done in the
2 month prior to the test.

3 [For text of item G, see M.R.]

4 H. Appendix:

5 [For text of subitems (1) to (5), see M.R.]

6 (6) calibration procedures and results, including Pitot tube, nozzle, meter box,
7 thermometer, and barometer calibrations;

8 (7) project participants and titles; and

9 (8) a copy of the most recent version of the test plan and a copy of the
10 commissioner's written approval of the test plan.

11 I. Additional information:

12 (1) any other special requirement of the test method, test plan, applicable
13 requirement, or compliance document; and

14 (2) any other information necessary to evaluate compliance with parts 7017.2020
15 and 7017.2025 as requested by the commissioner.

16 **7017.2045 QUALITY ASSURANCE REQUIREMENTS.**

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

18 Subp. 3. **Quality assurance.** Any performance test shall meet the minimum
19 requirements for quality assurance, performance standards, and specifications as stated
20 in the reference method or in the alternative or equivalent method. The provisions in
21 items A and B also apply.

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

23 B. Only employees of the testing company may operate source sampling
24 equipment or otherwise be a part of the emission sampling or analysis of air pollutants
25 from the emission facility during a performance test. The owner or operator or

1 employees of the emission facility may not assist in any sampling or any analysis of
2 samples unless authorized within an approved test plan.

3 Any request to deviate from the requirements of this subpart shall be submitted at
4 least seven working days before the performance test. The commissioner shall reject the
5 results of each test run where deviations from quality assurance or methodology or test
6 plan requirements exceeded those allowed under subpart 4.

7 Subp. 4. **Deviation from quality assurance, test method, or test plan.** The
8 commissioner shall reject the results of a performance test if there was a deviation from
9 the quality assurance requirements of this part, from the test method, or from the
10 approved test plan unless:

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

12 D. the deviation was from the operating conditions required of the emissions unit
13 and was within the range of operating conditions allowed by the applicable requirement
14 or compliance document such that the compliance status of the emission facility can be
15 determined under the test conditions. In this case, the conditions of part 7017.2025
16 apply.

17 Subp. 5. **Precision of test methods.** The inherent precision, level of confidence, and
18 bias of any test method approved by the commissioner for use during a performance
19 test shall not be a factor in determining the compliance status of an emission facility.
20 However, the commissioner shall reject any test runs that were not conducted with
21 acceptable accuracy within the limits of the test method and the sampling conditions or
22 if the detection limit of the test method was higher than the applicable emission
23 standard.

24 If the commissioner determines that the test results are valid under the quality
25 assurance requirements of the method and that the performance test was conducted in
26 accordance with parts 7017.2001 to 7017.7060 and the applicable requirement or

1 compliance document and the test result exceeds the applicable emission limit by any
2 amount, the owner or operator is in violation of that emission limit.

3 Subp. 6. **Adjustments for detection limit.** The commissioner shall require that the
4 sample volume to be collected be increased above the minimum amount specified in an
5 applicable requirement or compliance document, if necessary to ensure that the amount
6 or concentration of the pollutant collected is greater than the detection limit given by the
7 analytical procedure employed upon the field samples. If the commissioner requires
8 this, the minimum sample volume shall be determined by the following equation:

$$V = A \times \frac{100 \times 100 \times 1}{B \quad C \quad D}$$

- 9 Where: V = minimum sample volume to be collected (dscm)
- 10 A = the analytical detection limit in g
- 11 B = percent of the sample required per analytical run
- 12 C = sample recovery (%)
- 13 D = stack emission limit or expected emission
- 14 rate (g/dscm)

15 In cases where a performance test for a pollutant yields a result that is less than the
16 detection limit of the method as utilized, the results shall be calculated and reported as
17 less than or equal to that detection limit.

18 **7017.2050 PERFORMANCE TEST METHODS.**

19 Subpart 1. **Test methods.** Unless a different method is given in an applicable
20 requirement or compliance document, the owner or operator of an emission facility
21 shall conduct performance tests using the methods incorporated by reference in part
22 7017.2010 and following the requirements in part 7017.2060, unless an alternative or
23 equivalent method is approved or required by the commissioner in accordance with
24 subpart 2.

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

1 **7017.2060 PERFORMANCE TEST PROCEDURES.**

2 Subpart 1. **Applicability.** For the purpose of using the methods referenced in part
3 7017.2050, the requirements in this part apply unless otherwise stated in the applicable
4 requirement or compliance document.

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

6 Subp. 4. **PM-10 determination.**

7 A. Method 201 or 201A shall be used unless the commissioner has approved an
8 alternate or equivalent method. The sampling time for each run shall be at least 60
9 minutes and the minimum sampling volume will be 32 dscf (0.9 dscm).

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

11 D. The determination of condensible particulate matter may be waived if it can be
12 demonstrated to the commissioner through mass balance calculations or previous
13 performance test results that the emissions unit is not a source of condensible particulate
14 matter emissions.

15 Subp. 5. **Opacity determination by Method 9.** Opacity observations shall be
16 performed by a certified observer and in accordance with the requirements of Method 9.
17 In addition, the requirements of subpart 6 and the following items shall apply:

18 A. The commissioner may reject the opacity results if the commissioner cannot
19 determine the compliance status of the emission facility due to error, bias, or insufficient
20 documentation during the performance test. The recommendations of Method 9 and
21 EPA document EPA-600/4-77-027b, Addition Section 3.12 (Feb. 1984), as amended,
22 entitled "Quality Assurance Handbook for Air Pollution Measurement Systems: Volume
23 III. Stationary Source Specific Methods," which is incorporated by reference, shall be
24 used in determining the acceptability of opacity results. This document is available at
25 the state law library and is not subject to frequent change.

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

1 D. Data reduction shall be performed in accordance with Paragraph 2.5 of Method
2 9 and subpart 6. A one-hour period means any 60 consecutive minutes and a six-minute
3 period means any set of 24 consecutive 15-second intervals.

4 Subp. 6. **Opacity data reduction procedures.** For the purpose of this part, "excursion"
5 means an opacity higher than the base standard that is allowed for a limited number of
6 minutes within a time period. Compliance with opacity limits shall be determined from
7 all data points collected in an averaging period and according to items A and B.

8 A. For opacity standards which allow excursions based on six-minute periods, an
9 exceedance of the standard has occurred if, having taken the allowable excursion into
10 account, any six-minute average exceeds the standard. The exceedance shall be
11 expressed as the value of the highest six-minute average and the number of
12 nonoverlapping six-minute averages that exceed the standard within the period of the
13 test run.

14 B. For opacity standards that do not allow excursions, an exceedance of the
15 standard has occurred if any six-minute average exceeds the standard. The exceedance
16 shall be expressed as the value of the highest six-minute average and the number of
17 nonoverlapping six-minute averages that exceed the standard within the period of the
18 test run.

19 [For text of subp 7, see M.R.]

20 **EFFECTIVE DATE.** For emission points that are monitored by a continuous opacity
21 monitoring system meeting the requirements of part 7017.1000, the amendments to
22 parts 7011.0010, 7011.0105, 7011.0510, 7011.0515, 7011.0610, 7011.0710, 7011.0805,
23 7011.1305, 7011.1405, and 7011.1410 apply at the start of the first full quarterly reporting
24 period after the data acquisition system is reprogrammed or replaced, but no later than
25 January 1, 1999.