



Minnesota Pollution Control Agency (MPCA) compliance audit checklists are designed to assist businesses and MPCA staff with the interpretation of Minnesota's environmental laws and rules. Because the laws and rules are numerous and often complicated, this checklist cannot be a complete guide to all your compliance obligations. If you have questions about the checklist, your obligations, or its conditions that you discover as you complete this evaluation, please contact:

Small Business Environmental Assistance Program (SBEAP)
651-282-6143 or 1-800-657-3938
<http://www.pca.state.mn.us/programs/sbap-sectors.html>

Nonmetallic Air Permit

Date of Audit: _____

Company Name: _____

Authorized
Representative Name: _____ Title: _____

In conducting performance tests, you must determine compliance with the particulate matter standards by using approved Method 5 or Method 17. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

1. Have you used the proper performance test Method 5 or Method 17 and test procedures described above to determine compliance with the particulate matter standard?

- ☐ **YES** We have used the proper performance test Method 5 or Method 17 and test procedures described above to determine compliance with the particulate matter standard. Continue on to the next question.
- ☐ **NO** We have not used the proper performance test Method 5 or Method 17 and test procedures described above to determine compliance with the particulate matter standard. *This is a deviation and must be reported on the NM-DRF form.* Continue on to the next question.

NOTE: You can find the required Crusher and Conveying Test Plan at: <http://www.pca.state.mn.us/air/ptest-planning.html>

Method 9 is to be used to determine opacity compliance. In determining compliance with the particulate matter standards the minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). The observer must, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9) must be followed.

2. Have you or do you now use Method 9 and the prescribed procedures described above to determine opacity compliance?

- ☐ **YES** We do use Method 9 and the prescribed procedures described above to determine opacity compliance.
- ☐ **NO** We do not use Method 9 or the prescribed procedures described above to determine opacity compliance. *This is a deviation and must be reported on the NM-DRF form.* Continue on to the next question.

For affected facilities using wet dust suppression (scrubbers) for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

3. If you have a wet scrubber does the observer take the readings at a point in the plume where the mist is no longer visible?

- ☐ **YES** Continue on to the next question.
- ☐ **NO** *This is a deviation and must be reported on the NM-DRF form.* Continue on to the next question.

In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin using Method 9, the duration of the Method 9 observations must be 1 hour (ten 6-minute averages).

4. Do you have a baghouse that controls emissions from an individual enclosed storage bin using Method 9, for a duration of 1 hour (ten 6-minute averages)?

- ☐ **YES** We do have a baghouse that controls emissions from an individual enclosed storage bin and do use Method 9, for a duration of one hour (ten 6-minute averages). Continue on to the next question.
- ☐ **NO** We do have a baghouse that controls emissions from an individual enclosed storage bin but do not use Method 9, for a duration of one hour (ten 6-minute averages). *This is a deviation and must be reported on the NM-DRF form.* Continue on to the next question.

When determining compliance with the fugitive emissions standard for any other affected facility, the duration of the Method 9 observations may be reduced from three hours (thirty 6-minute averages) to one hour (ten 6-minute averages) only if the following conditions apply:

- (1) There are no individual readings greater than ten percent opacity; and
- (2) There are no more than three readings of ten percent for the one-hour period.

5. Do you meet each of the conditions that would allow for a reduced Method 9 observation period?

- ☐ **YES** We do meet each of the conditions that allow for a reduced Method 9 observation period. Continue on to the next question.
- ☐ **NO** We do not meet each of the conditions that allow for a reduced Method 9 observation period. Continue on to the next question.

When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used, the duration of the Method 9 observations may be reduced from three hours (thirty 6-minute averages) to one hour (ten 6-minute averages) only if the following conditions apply:

- (1) There are no individual readings greater than 15 percent opacity; and
- (2) There are no more than three readings of 15 percent for the one-hour period.

6. Do you have a crusher with a capture system that is not used and meet the above two conditions necessary to reduce the Method 9 observation period?

- ☐ **YES** We do have a crusher with a capture system that is not used and do meet the above two conditions above. Continue on to the next question.
- ☐ **NO** We do not meet the conditions above. Continue on to the next question.

In determining compliance with fugitive emissions you must use Method 22. The performance test must be conducted while all affected facilities inside the building are operating. The performance test for each building must be at least 75 minutes in duration with each side of the building and the roof being observed for at least 15 minutes.

7. Do you use Method 22 while all affected facilities inside the building are operating with the performance test duration for each building of at least 75 minutes in duration with each side of the building and the roof being observed for at least 15 minutes?

- ☐ **YES** Continue on to the next question.
- ☐ **NO** *This is a deviation and must be reported on the NM-DRF form.* Continue on to the next question.

You may use alternatives to the reference Methods and procedures if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read. Either of the following procedures may be used:

- (1) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- (2) Separate the emissions so that the opacity of emissions from each affected facility can be read.

8. If emissions from two or more facilities continuously interfere do you or have you used either of the alternative Methods described above?

- ☐ **YES** We have you used either of the alternative Methods described above. Continue on to the next question
- ☐ **NO** We have not used either of the alternative Methods described above. Continue on to the next question.

If you have a wet scrubber you must record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and must determine the averages.

9. Do you have a wet scrubber and record the measurements as using the monitoring devices in Minn. Stat. §60.674 (a) and (b) during each particulate matter run to determine the averages?

NOTE: Minn. Stat. §60.674 The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices: (a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions. (b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

- ☐ **YES** We do have a wet scrubber and record the measurements as using the monitoring devices in §60.674 (a) and (b) during each particulate matter run to determine the averages. This checklist is complete.
- ☐ **NO** We do have a wet scrubber but do not record the measurements using the monitoring devices in §60.674 (a) and (b) during each particulate matter run to determine the averages. *This is a deviation and must be reported on the NM-DRF form.* This checklist is complete.

If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility must submit a notice to the MPCA at least seven days prior to any rescheduled performance test.

NOTE: Initial Method 9 performance tests are not required for wet screening operations, screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin. Method 9 performance tests are also not required for screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

Minn. Stat. § 60.675 Test Methods and Procedures

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference Methods and procedures the test Methods in appendix A of this part or other Methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative Methods and procedures are given in paragraph (e) of this section.
- (b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:
- (1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.
 - (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.
- (c) (1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:
- (i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - (ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
 - (iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- (2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).
- (3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
- (i) There are no individual readings greater than 10 percent opacity; and
 - (ii) There are no more than 3 readings of 10 percent for the 1-hour period.
- (4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
- (i) There are no individual readings greater than 15 percent opacity; and
 - (ii) There are no more than 3 readings of 15 percent for the 1-hour period.
- (d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
- (e) The owner or operator may use the following as alternatives to the reference Methods and procedures specified in this section:
- (1) For the Method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 - (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
 - (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.
 - (f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.
 - (g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.
 - (h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:
 - (1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.
 - (2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

Minn. Stat. § 60.8 Performance Tests

- (a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).*
- (b) Performance tests shall be conducted and data reduced in accordance with the test Methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference Method with minor changes in Methodology, (2) approves the use of an equivalent Method, (3) approves the use of an alternative Method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.*
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.*
- (d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.*
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:*
 - (1) Sampling ports adequate for test Methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test Methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test Methods and procedures.*
 - (2) Safe sampling platform(s).*
 - (3) Safe access to sampling platform(s).*
 - (4) Utilities for sampling and testing equipment.*
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test Method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.*