



**Minnesota Pollution
Control Agency**

520 Lafayette Road
St. Paul, MN 55155-4194

Hot Mix Asphalt Plants Compliance Audit

Wet Scrubbers
Environmental Audits

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>

Date of Audit: _____

Company Name: _____

Authorized
Representative Name: _____ Title: _____

Wet Scrubber Control

For all hot mix asphalt (HMA) facilities in operation on April 22, 1996, and there after, you are subject to Minn. R. 7011.0913 which requires that you as the owner or operator must install pollution control equipment consisting of either a fabric filter baghouse or a wet scrubber system and achieve compliance by completing the following requirements. This checklist pertains only to those HMA plants who have an operational wet scrubber system. For all HMA plants who's control device uses liquid in spray towers, scrubbers, and wet cyclone separators: check the sediment level in non-self cleaning ponds *daily* so as not to exceed one-half the pond depth, and check to ensure the pH of the water leaving the control device is between five and ten *weekly*; and check accessible dampers, spray bars, nozzles, and demister *monthly* for wear.

Record keeping

The owner or operator shall maintain a record of activities conducted on the wet scrubber including the date the activity was completed and any corrective action taken, and the owner or operator shall maintain the records for a minimum of *five* years from the date the record was made.

Performance testing required

If the owner or operator of a HMA plant has not conducted a performance test for particulate matter and opacity approved by the commissioner under parts 7017.2001 to 7017.2060 since January 1, 1991, the owner or operator must conduct such a performance test. The required performance test plan can be located at: <http://www.pca.state.mn.us/publications/forms/aq-f7-ftp-ex04.doc>.

Installation of monitoring equipment

The owner or operator of a HMA plant shall install monitoring equipment to measure operating hours as specified, in part, and the monitoring parameters for all asphalt plant control equipment. For HMA plants not in operation on April 22, 1996, the monitoring equipment must be installed prior to operation of any HMA plant equipment controlled by the control equipment. For HMA plants in operation on April 22, 1996, the owner or operator must install monitoring equipment no later than 30 days after April 22, 1996.

Operation of Monitoring Equipment

The owner or operator of a HMA plant shall operate in compliance with this part the monitoring equipment for each piece of asphalt plant control equipment at all times the asphalt plant control equipment is required to operate.

Shutdown and Breakdown Procedures for Scrubbers

In the event of a shutdown or breakdown of the asphalt plant scrubber control equipment, the owner or operator of a HMA plant shall comply with part 7019.1000.

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 HMA plant must report to the Agency any recorded reading outside of the specification or range of specifications allowed from any monitored operating parameter required, except that owners and operators with a registration permit option D or capped permit shall make this report *only* if a deviation occurred in the reporting period.

Monitoring and Record Keeping for Asphalt Plants with Scrubbers

Scrubber control equipment. Unless otherwise specified in a part 70, state, or general permit, the owner or operator of a HMA plant shall comply with the monitoring and record keeping required by the table in this subpart for asphalt plant control equipment. The owner or operator shall maintain the records required by this subpart for a minimum of five years from the date the record was made.

Definitions

003, control device in rate, and calendar day which the particulates water pressure of operation in the incoming gas stream are entrained by a liquid and the control device is not a spray tower, venturi scrubber, impingement plate scrubber, or a wet cyclone separator.

052, "Spray Tower" means a Liquid flow Record each control device in rate, pressure parameter every which the incoming drop, and calendar day gas stream passes water pressure of operation through a chamber in which it contacts a liquid spray.

053, "Venturi Scrubber" Pressure drop, Record each means a control liquid flow parameter every device in which the rate, and calendar day incoming gas stream water pressure of operation passes through a venturi into which low pressure liquid is introduced.

055, "Impingement Plate Pressure drop, Record each Scrubber" means a liquid flow parameter every control device in rate, and calendar day which the incoming water pressure of operation gas stream passes a liquid spray and is then directed at high velocity into a plate.

085 "Wet Cyclone Separator" Pressure drop, Record each or "Cyclonic Scrubbers" water pressure, parameter every means a cyclonic and water calendar day device that sprays flow rate of operation water into a cyclone.

1. You have an operational wet scrubber and currently do record the chamber pressure drop, liquid flow-rate, and water pressure drop *daily*.
☐ **YES**
☐ **NO** We do not record any or all of the scrubber parameters above on a *daily* basis. *This is a deviation and must be recorded on the DRF-2 form.*
2. Check sediment (solids) level in discharge pounds daily is not to exceed one-half of the pond depth. You always dredge the pond for excess sediment.
☐ **YES**
☐ **NO** *This is a deviation and must be recorded on the DRF-2 form.*
3. You check the pH of the scrubber discharge pond weekly to ensure any liquid leaving the scrubber control device is in the proper pH range of 5 to 10.
☐ **YES** The pH is checked weekly and is in the proper range of 5 to 10.
☐ **NO** The pH is not checked weekly. *This is a deviation and must be recorded on the DRF-2 form.*
☐ **NO** We do check the pH but it is not in the 5 to 10 range as required. *This is a deviation and must be recorded on the DRF-2 form.*
4. You continue to check dampers, spray bars, nozzles, and the demister monthly for any wear.
☐ **YES** We do not check these scrubber parameters monthly.
☐ **NO** We do not check these scrubber parameters monthly. *This is a deviation and must be recorded on the DRF-2 form.*

Performance Test Frequency for HMA Plant Scrubbers

Plants with control equipment that use liquid to remove pollutants. If an owner or operator operates a HMA plant that has only control equipment that uses liquid to remove pollutants or has a secondary control device that uses liquid to remove pollutants, the owner or operator shall conduct performance testing for particulate matter and opacity as described in items A to D.

- ☐ **YES** We use liquids and do have a scrubber control system. We have conducted performance testing and opacity testing.
- ☐ **NO** We do not use liquids and do not have a scrubber control system. Performance testing and opacity has not been conducted.
- A.** If the HMA plant produced no more than 35,000 tons in each of the three previous calendar years and has a manufacturer's rated capacity of 100 tons per hour or less at five percent moisture, then the owner or operator shall conduct performance testing as required by the Agency.
- B.** Except as provided in item A, if the HMA plant produced no more than 100,000 tons in any of the three previous calendar years, then the owner or operator shall conduct performance testing every three calendar years.
- C.** If the HMA plant produced greater than 100,000 tons, but no more than 200,000 tons in any of the three previous calendar years, then the owner or operator shall conduct performance testing every two calendar years.
- ☐ **YES** We produced greater than 100,000 tons, but no more than 200,000 tons in any of the three previous calendar years and do conduct performance testing every two calendar years.
- ☐ **NO** We do produce greater than 100,000 tons, but no more than 200,000 tons in any of the three previous calendar years and do not conduct performance testing every two calendar years. *This is a deviation and must be recorded on the DRF-2 form.*
- D.** If the HMA plant produced more than 200,000 tons in the previous calendar year, then the owner or operator shall conduct performance testing within 60 days of start-up in the following calendar year.
- ☐ **YES** We produced more than 200,000 tons in the previous calendar year and do conduct performance testing within 60 days of start-up in the following calendar year. This checklist is complete.
- ☐ **NO** We did produce more than 200,000 tons in the previous calendar year but did not conduct performance testing within 60 days of start-up in the following calendar year. *This is a deviation and must be recorded on the DRF-2 form.* This checklist is complete.