



North Carolina Department of Environment and Natural Resources

Division of Air Quality

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MEMORANDUM

To: Regional Supervisors  
Compliance Coordinators  
Permit Coordinators  
*Sheila Holman*

From: Sheila Holman, Director, Division of Air Quality

Subject: Hot Mix Asphalt Plant Performance Testing / Emission Testing Frequency

The purpose of this memo is to establish inter-regional consistency in the application of performance /emission testing requirements for all hot mix asphalt plants across the state of North Carolina. The Division of Air Quality shall require emission testing of hot mix asphalt plants at least once each 120 calendar months (10 years) at conditions representative of normal maximum production levels for the individual plant. After consultation with the Director, Regional Supervisors may require more frequent testing in consideration of other site specific issues and/or effects on the local community.

Background

At the time of this memorandum, there are 163 asphalt plants holding active permits with the NC Division of Air Quality (DAQ). Of the 163 asphalt plants, 1 facility has a TV permit, 158 have synthetic minor permits and 4 have minor permits. In the period from January 2007 through February 2013, a total of 60 emission tests were conducted and submitted to DAQ. All tests conducted included a comparison with the emission limits in 15A NCAC 2D.0506. One test failed to demonstrate compliance with 15A NCAC 2D.0506, for a failure rate of just under 2 percent. The 60 tests includes the subsequent retest to demonstrate compliance with 15A NCAC 2D.0506.

A subset of these 60 emissions tests included 52 tests conducted to demonstrate compliance with the NSPS for Hot Mix Asphalt Plants (Subpart I). Of these 52 tests, 6 tests (11.5%) failed to demonstrate compliance with the NSPS particulate emission limitations. It should be noted that these tests are contracted and conducted with prior preparation by the companies to establish representative operating conditions during the testing.

Under DAQ's permitting structure nearly all these permits, permit modifications and permit renewals are processed through the regional offices. An issue of consistency of testing requirements has been raised, particularly for companies that have numerous plants across regional boundaries. The issue of consistency is especially sensitive when these plants are located in adjacent counties under similar local conditions with permits issued through adjacent regional offices. Although there may be acceptable reasons for the differences in the testing requirements in the permits issued by the various regional offices, it can give the appearance of inconsistent application of regulatory authority. The DAQ strives to minimize this inconsistency or perception of inconsistency. As a baseline minimum testing frequency, the DAQ is establishing a procedure to test once every 120 months (10 years) unless other factors indicate a more frequent testing schedule is required. A failed stack test shall require retesting after corrections are made.

#### Procedures for Compliance and Permitting Personnel

1. Particulate emissions testing shall be conducted using Reference Method 5 and Reference Method 202. Reference Method 9 for visible emissions may also be required.
2. When the NSPS applies, the Reference Method 5 filterable catch shall be used to determine compliance with the NSPS emission limit,
3. When complying with the requirements of 15A NCAC 02D.0506, the total particulate catch (filterable and condensable) shall be used to determine compliance with the emission limits.
4. Emission testing shall be conducted no less frequently than once every 120 months. All requirements of 15A NCAC 02D.2600 shall apply with respect to notification and protocol submittal.
5. Plant operation during testing should be conducted at maximum normal permitted production ( $\pm 10$  percent). Production levels below this amount may result in production limits in the permit that may not be exceeded by more than 10 percent of the tested production rate.
6. Plant operations greater than 10 percent of the maximum permitted production may be allowed (without modification to the permit) provided the facility conducts another performance test at the higher level within 180 days of increasing the production rate.
7. Asphalt plants that are classified as "small" or that have actual average production rates of less than 40,000 tons per year (in the prior 36 calendar months before a required test) may petition for an alternate compliance method provided it is not otherwise required to test by some other regulation or has a demonstrated compliance issue (e.g., opacity issues, poor operation and maintenance in those prior 36 calendar months).
8. Testing on a more frequent basis may be required when a violation of the opacity standard is observed. In addition, the presence of fugitive emissions from process

equipment and/or a violation of fugitive emission standards that indicate the control system is not operating properly are situations where additional testing may be required. These may be observed as a result of complaint investigations. However, a complaint is not required for DAQ to observe the opacity.

9. Observation of “puffs” (short-term periods of elevated opacity) from a fabric filter as a result of operating the cleaning system or sustained operation at higher opacity (e.g., 10%) over a six-minute observation period may be considered in requiring testing on a more frequent basis. Some other method of demonstrating that the fabric filter is in good operating order, such as bag leak detection using electrical characteristics of the outlet gas stream or fluorescent dye /ultraviolet light testing, may be accepted by DAQ.
10. Good operation and maintenance practices are always required to minimize emissions to the maximum extent practicable. However, documented poor or improper operation and maintenance can be used to require more frequent emission testing.
11. When other compliance issues have been noted, procedures which enhance good operation and maintenance (e.g., startup and shutdown procedures that minimize condensation of moisture and other condensible materials on the fabric, routine leak detection testing, operation and bag replacement records, etc.) may be considered in determining when a shorter testing period is warranted.

