



State of New Jersey

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MEMORANDUM

TO: Air Quality Permitting Staff

FROM: John Preczewski, Assistant Director 

SUBJECT: Guidance on Averaging Period for Stack Emissions Tests

DATE: September 19, 2008

This memorandum clarifies and reinforces guidance on the selection of appropriate averaging times for stack emissions tests to verify compliance with emission limits for new and/or modified sources. The following hierarchical list provides guidance based on order of precedence:

1. If the stack testing is to confirm compliance with an emission limit in a code (state or Federal) or in a Consent Agreement (Agreement), then compliance must be based on the averaging time specified in the code or Agreement.

Any alternative form of an emission limit in a permit should have the same averaging time as the underlying emission limit in the code or Agreement, if the value is based on the code or Agreement. For example, if the code limit is based on pounds per million British Thermal Units (lb/MMBTU) averaged over three validated stack test runs, the pound per hour limit derived from the lb/MMBTU limit should also be averaged over three validated test runs. Similarly, if the alternate limit is the same or more stringent than the underlying code and the code basis is averaging over three validated stack test runs, then compliance with the alternative limit should be based on the average of three validated stack test runs.

2. If the air contaminant has a short term reference concentration (for non-carcinogenic health effects) with an hour averaging time, then compliance should be based on each of the three Department validated stack test runs, if necessary to prevent exceedance of the reference concentration.
3. If the emission limit has been derived from a State of the Art (SOTA) Manual, then the SOTA averaging time should be used for compliance.

If the SOTA Manual specifies no averaging time or if the emission standard has been derived from a case-by-case SOTA analysis, then compliance should be based on the average of three Department validated stack test runs.

4. If the code or Agreement that is used as the basis for the emission limit lists no averaging time, then compliance should be determined as follows:
 - A. For total suspended particulates, carbon monoxide, nitrogen oxide(s), sulfur dioxide, and volatile organic compounds, the default will be that compliance must be demonstrated with each of three Department validated stack test runs.
 - B. For individual Hazardous Air Pollutants, including heavy metals, (arsenic, cadmium, chromium, lead, mercury, nickel), PM-2.5, and PM-10, the default will be that compliance must be demonstrated with the average of three Department validated stack test runs.
6. Case-by-case exceptions to the above require Section Chief approval.