§ 60.4400 How do I conduct the initial and subsequent performance tests, regarding NO\textsubscript{X}?  

(a) You must conduct an initial performance test, as required in § 60.8. Subsequent NO\textsubscript{X} performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).  

(1) There are two general methodologies that you may use to conduct the performance tests. For each test run:

\[
E = \frac{1.194 \times 10^{-7} \times (\text{NO}_\text{X}) \times Q_{\text{std}}}{P} \quad (\text{Eq. 5})
\]

Where:
- \(E\) = NO\textsubscript{X} emission rate, in lb/MWh
- \(1.194 \times 10^{-7}\) = conversion constant, in lb/dscf/ppm
- \((\text{NO}_\text{X})\) = average NO\textsubscript{X} concentration for the run, in ppm
- \(Q_{\text{std}}\) = stack gas volumetric flow rate, in dscf/hr
- \(P\) = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to § 60.4350(f)(2); or

(ii) Measure the NO\textsubscript{X} and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the NO\textsubscript{X} emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in § 60.4350(f) to calculate the NO\textsubscript{X} emission rate in lb/MWh.  

(2) Sampling traverse points for NO\textsubscript{X} and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.  

(3) Notwithstanding paragraph (a)(2) of this section, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of this part if the following conditions are met:  

(i) You may perform a stratification test for NO\textsubscript{X} and diluent pursuant to (A) [Reserved], or  
(B) The procedures specified in section 6.5.6.1(a) through (e) of appendix A of part 75 of this chapter.  
(ii) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:  
(A) If each of the individual traverse point NO\textsubscript{X} concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO\textsubscript{2} (or O\textsubscript{2}) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet)
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§ 60.4405 How do I perform the initial performance test if I have chosen to install a NOX-diluent CEMS?

If you elect to install and certify a NOX-diluent CEMS under §60.4345, then the initial performance test required under §60.4345 may be performed in the following alternative manner:

(a) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0 °F during the RATA runs.

(b) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.

(c) Use the test data both to demonstrate compliance with the applicable NOX emission limit under §60.4320 and to provide the required reference method data for the RATA of the CEMS described under §60.4335.

(d) Compliance with the applicable emission limit in §60.4320 is achieved if the arithmetic average of all of the NOX emission rates for the RATA runs, expressed in units of ppm or lb/MWh, does not exceed the emission limit.