



U.S. Environmental Protection Agency Applicability Determination Index

Control Number: 0500103

Category: NSPS
EPA Office: Region 4
Date: 09/08/2003
Title: Initial Performance Test Waiver and Recordkeeping Waiver
Recipient: Lloyd, Peter B.
Author: Banister, Beverly H.
Comments:

Subparts: Part 60, Db, Indust.-Comm.-Inst. Steam Gen. Units

References: 60.8(a)
60.49b(d)
60.44b(k)

Abstract:

Q1: Does EPA waive the requirement to conduct an initial performance test, under 40 CFR part 60, subpart GG, on two of the three combustion turbines at Forsyth Energy Project's (FEP) plant in Forsyth County, North Carolina?

A1: Yes. EPA grants this waiver request. Under the conditions proposed by FEP, EPA finds the test results for one of the three identical turbines will provide adequate assurance that the other two units also comply with NSPS subpart GG. Additionally, the use of nitrogen oxides continuous emissions monitors (NO_x CEMS) at FEP provides a further source of credible evidence regarding the compliance for all three turbines following the initial testing.

Q2: Does EPA waive the requirement to keep records of the annual capacity factor, under 40 CFR part 60, subpart Db, for FEP's auxiliary boiler?

A2: Yes. EPA waives this requirement. EPA finds that since the company is not seeking an exemption from the nitrogen oxides limit under NSPS subpart Db, there is no regulatory need for information regarding the auxiliary boiler's annual capacity factor.

Letter:

Peter B. Lloyd
Program Manager
Field Service and Technical Evaluation Section
Forsyth County Environmental Affairs Department
537 North Spruce Street
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Dear Mr. Lloyd:

Thank you for your letter of June 30, 2002, which requested determinations regarding an initial performance test waiver request and a record keeping waiver request submitted for a combined cycle electrical generating plant operated by Forsyth Energy Projects, LLC (FEP). This plant will include three combustion turbines equipped with a duct burner system to power a single steam turbine. These combustion turbines will be subject to 40 CFR Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). An auxiliary boiler also located at this plant will be subject to 40 CFR Part 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). According to your letter, FEP has requested a waiver of the requirement to conduct initial performance testing for two of its three turbines and has requested a waiver of the requirement to calculate the annual capacity factor for the fuels burned in its auxiliary boiler.

Because the authority to approve the type of waivers requested by FEP has been delegated to the U.S. Environmental Protection Agency (EPA) Regional Offices, we reviewed both of the requests submitted by the company. Based upon our review, the requirement to conduct initial performance testing for two of FEP's three turbines can be waived if the results for one of the turbines indicate that flue gas nitrogen oxides (NO_x) concentrations are less than 50 percent of the applicable standard in Subpart GG. In addition, we determined that the requirement to keep records regarding the annual capacity factor for the fuels burned in FEP's auxiliary boiler can be waived. Details regarding both of FEP's requests and the basis for our determinations are provided in the remainder of this letter.

Under the provisions in 40 CFR 60.8(a), initial performance testing for affected facilities subject to New Source Performance Standards must be conducted within 60 days after reaching the maximum production rate at which the facility will be operated, but not later than 180 days after the initial startup of the facility. Provisions in 40 CFR 60.8(b)(4) allow the requirement for initial testing to be waived if an owner/operator demonstrates by other means to the EPA Regional Administrator's satisfaction that an affected facility is in compliance with the applicable standard. FEP's request that the initial testing requirement be waived for two of its three turbines is based upon the fact that the three units are identical and will be equipped with NO_x continuous emission monitors (CEMS) to ensure compliance with a Best Available Control Technology permit limit that is more stringent than the applicable NO_x limit under Subpart GG.

Based upon our review, waiving the requirement to test two of FEP's three turbines would be acceptable provided that the NO_x concentration in the flue gas from the turbine tested is less than 50 percent of the applicable limit under Subpart GG. A demonstration of compliance at 50 percent of the standard for one of three identically constructed and operated units provides a sufficient basis for assuming compliance for the remaining two units. EPA has waived initial

testing requirements for plants with identical Subpart GG turbines on several occasions in the past when test results from one unit indicate that emissions are well below the applicable limit. The use of NO_x CEMS at FEP will also provide credible evidence regarding compliance for all three turbines following the initial testing, and this fact provides an additional basis for waiving the initial testing requirement for two of the company's three turbines.

Under 40 CFR 60.49b(d), owners and operators of boilers units subject to Subpart Db must keep records of the amount of fuel burned each day and must calculate the annual capacity factor separately for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste. Under provisions in 40 CFR 60.44b(k), a unit fired with natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less is exempt from NO_x limits under Subpart Db if it has a heat input capacity of 250 million British thermal units per hour (mmBTU/hr) or less and is subject to a Federally-enforceable permit condition that limits its annual capacity factor to ten percent or less for these fuels. The heat input capacity for FEP's auxiliary boiler is 110 mmBTU/her, and FEP plans to fire the unit exclusively with natural gas. Therefore, FEP would qualify for an exemption from the NO_x limit in Subpart Db if its auxiliary boiler was subject to a Federally-enforceable permit condition limiting the unit's annual capacity factor to ten percent or less and the company kept records to verify compliance with this permit restriction.

Because FEP is not seeking an exemption from the NO_x limit in Subpart Db under the provisions in 40 CFR 60.44b(K), the company requested a waiver of the requirement to calculate the annual capacity for its auxiliary boiler under the provisions in 40 CFR 60.49b(d). We concur with the FEP's conclusion that calculating the annual capacity factor for its auxiliary boiler serves no regulatory purpose since the company is not seeking an exemption from the NO_x emission limit in Subpart Db. Therefore waiving the requirement to calculate the annual capacity factor for this unit would be acceptable to Region 4. Based upon FEP's current plan to fire its auxiliary boiler exclusively with natural gas, the only applicable emission limit under Subpart Db would be for NO_x. If the company were to fire the auxiliary boiler with oil or other fuels in the future, the unit could also become subject to particulate and sulfur dioxide limits under Subpart Db. Because information regarding the type of fuel fired is needed in order to determine the applicability of the emission limits under Subpart Db, FEP must comply with the fuel usage record keeping provisions in 40 CFR 60.49b(d) even if the requirement to calculate the annual capacity factor for the fuel(s) fired is waived.

If you have any questions about the determination provided in this letter, please contact Mr. David McNeal of the EPA Region 4 staff at (404) 562-9102.

Sincerely,

Beverly H. Banister
Director
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Management Division