

October 21, 1999

(A-18J)

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
Post Office Box 6015
Indianapolis, Indiana 46206-6015

Dear Mr. Dubenetzky:

We have recently come into possession of a January 27, 1998, letter from the Indiana Department of Environmental Management (IDEM), and July 14 and August 22, 1997 letters from Southern Indiana Gas and Electric Company (SIGECO)- concerning SIGECO's Culley Station Unit #3. In the January 27, 1998 letter, IDEM determined that the 1998 replacement of steam tubes and turbine blades at this unit could be considered a "like-kind replacement" and, therefore, would not be subject to the prevention of significant deterioration (PSD) requirements under 40 C.F.R. § 52.21. In addition, IDEM determined that these activities also qualify for the "routine maintenance, repair, and replacement" exemption under the New Source Performance Standards (NSPS) modification provisions under 40 C.F.R. § 60.14(e)(1). As discussed below, based on the information in our possession, we do not agree with IDEM's conclusions regarding SIGECO's 1998 steam tubes and turbine blades replacement project, and urge IDEM to reconsider its determination. Please note, however, that this letter does not constitute a final U.S. EPA applicability determination.

PSD Applicability

First, from the information provided in SIGECO's July 14, 1997 letter, these projects do not appear to be like-kind replacements; nor do the PSD rules provide any exemption for such changes. They are still subject to the rules if they constitute "major modifications," as defined in 40 C.F.R. § 52.21(b)(2). This analysis will require a determination of whether there has been or is projected to be a "significant net emissions increase," which, in turn, requires review of the PSD definitions of "net emissions increase," "actual emissions," and "significant," in 40 C.F.R. § 52.21(b). In making this determination for electric utility steam generating units (other than a new unit or the replacement of an existing unit), 40 C.F.R. § 52.21(b)(21)(v) states that actual emissions following the physical or operational change

shall equal the representative actual annual emissions of the unit. "Representative actual annual emissions" is defined in 40 C.F.R. § 52.21(b)(33) as the average rate at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit.

To our knowledge, SIGECO has not provided a demonstration that this modification did not and would not cause a net emissions increase at the source exceeding the significant thresholds listed in 40 C.F.R. §52.21(b)(23)(i), in accordance with the definitions outlined above. Information included in a July 14, 1997, letter from SIGECO to IDEM shows actual sulfur dioxide (SO₂) emissions for the two-year period prior to the modification (1995-1996) to be an average of 2,372 tons per year and projected actual SO₂ emissions for a two-year period following the modification (1998-1999) to be an average of 3,131 tons per year. This represents a 759 tons per year increase in actual SO₂ emissions, which is above the PSD significant net emissions increase threshold of 40 tons per year.

NSPS Applicability

The NSPS regulations at 40 C.F.R. §60.2 define a modification as "any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant emitted into the atmosphere...." Further, 40 C.F.R. § 60.14(a) states that, except as provided by subsections (e) and (f), a modification is "...any physical or operational change which results in an increase in the emission rate to the atmosphere...." 40 C.F.R. §60.14(e) identifies several activities that alone do not constitute a modification, including maintenance, repair and replacement "...that the Administrator determines to be routine for a source category...."

In its January 27, 1998 letter to SIGECO, IDEM states that "...this activity by SIGECO falls under the 'maintenance, repair, and replacement' exemption for 326 IAC 12-1 for NSPS." However, IDEM provides no basis for drawing this conclusion in its letter, nor does it appear as though SIGECO provided sufficient information in its July 14 and August 22, 1997 letters to support this conclusion.

In its July 14, 1997 letter, SIGECO describes two options for the replacement of worn out steam tubes and turbine blades in its Unit No. 3. The first option is to replace the equipment with new equipment of the same design; the second option is to replace the equipment with more efficient and up-to-date equipment. SIGECO projected that the more efficient and up-to-date steam tubes and turbine blades would increase the unit's rated capacity from 265 Megawatts to 287 Megawatts. SIGECO chose the second option.

Based on the information contained in SIGECO's July 14, 1997 and August 22, 1997 letters, the steam tube and turbine blade replacement resulted in an 8% increase in operating capacity of the unit from 265 to 287 Megawatts. If a

corresponding increase in heat input capacity also resulted from this project, the hourly emission rate of SO₂, NO_x and PM would increase. Therefore, SIGECO's project may have triggered NSPS Subpart Da for Unit No. 3.

Based on the considerations outlined above, we believe that the 1998 SIGECO steam tube and turbine blade replacements may constitute both a "major modification" subject to applicable PSD requirements and a "modification" subject to applicable NSPS requirements. We also believe that in its July 14 and August 22, 1997 letters SIGECO did not provide all of the information necessary to make a definitive determination. Based on these facts, U.S. EPA requests that IDEM withdraw its January 27, 1998 applicability determination.

If you have any further questions regarding the PSD applicability, please contact Sam Portanova, of my staff, at (312) 886-3189. Please direct questions related to the NSPS applicability should be directed to Katherine Keith, of my staff, at (312) 353-6956.

Sincerely yours,

/s/

Margaret M. Guerriero, Acting Director
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cc: Michael L. Sandefur
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