



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

June 27, 2011

Mr. Harry M. Wilson, III, P.E., Chief  
Environmental Permits Division  
Agricultural Branch  
Mississippi Department of Environmental Quality  
P.O. Box 2261  
Jackson, Mississippi 39225

**SUBJECT:** Request for Prevention of Significant Deterioration (PSD) applicability determination on questions concerning the PSD 100 ton per year (tpy) major source threshold category for fossil fuel boilers at a Griffin Industries, Inc. (Griffin), rendering facility located at Jackson, Hinds County, Mississippi

Dear Mr. Wilson:

This letter is in response to your request for United States Environmental Protection Agency – Region 4’s assistance in making a PSD applicability determination by letter dated August 23, 2010. The Mississippi Department of Environmental Quality (MDEQ) is seeking EPA - Region 4’s assistance with three related PSD applicability questions. The three questions pertain to issues regarding the applicability of the fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour (mmBtu/hr) heat input 100 tpy major PSD source categories. The proposed project consists of the replacement of four existing boilers with a total combined heat input capacity of 249.2 mmBtu/hr, with six new boilers. The combined design heat input capacity of the six new boilers would exceed 250 mmBtu/hr. Specifically, each of the six proposed boilers has a maximum nominal heat input rating of 50.219 mmBtu/hr, for a total project combined maximum heat input capacity of 301.314 mmBtu/hr. A total project combined maximum heat input capacity of 284.574 mmBtu/hr is also indicated under another possible alternative boiler project scenario being considered by Griffin.

The principle reference used to address these issues is “Guidance on Limiting Potential to Emit in New Source Permitting,” from Terrell E. Hunt, Air Enforcement Division, Office of Enforcement and Compliance Monitoring, and John S. Seitz, Stationary Source Compliance Division, Office of Air Quality Planning and Standards, June 13, 1989 available at [http://www.epa.gov/reg3artd/permitting/t5\\_epa\\_guidance.htm](http://www.epa.gov/reg3artd/permitting/t5_epa_guidance.htm). We are also assuming in this response that this source is not now and never has been a major New Source Review (NSR) source.

**Question #1:** Assuming the project consists of four package boilers with a heat input capacity of 50.219 mmBtu/hr and two boilers with a heat input capacity of 41.848 mmBtu/hr with a total capacity of 284.574 mmBtu/hr, does/can the facility only count the design heat input from a maximum of any five of the six boilers (maximum of 242.725 mmBtu/hr) when determining whether the facility belongs to the PSD “List of 28” source category for fossil-fuel boilers, assuming it has established a federally enforceable operating limit allowing operation of no more than five of the six boilers at any time (with appropriate restrictions and monitoring and recordkeeping provisions to assure compliance)?

**Response:** A permit limitation can legally restrict potential production capacity if it meets one of two criteria: 1) it is contained in a permit issued pursuant to an EPA-approved permitting program or a permit directly issued by EPA, or has been submitted to EPA as a revision to a State Implementation Plan and approved as such by EPA; or 2) it is enforceable as a legal and practical matter. The enforceability as a practical matter is an implied requirement of the first criterion. Compliance with any limitation must be able to be established at any given time. Permit conditions must be written in such a manner that an inspector could verify instantly whether the source is or was complying with the permit conditions.

The option of limiting operation to only some combination of units could meet these criteria if the maximum heat input capacity does not exceed 250 mmBtu/hr at any time and the actual maximum utilization, including operation during start up, shutdown or maintenance conditions, is also maintained below 250 mmBtu/hr at all times, assuming appropriate restrictions and monitoring, recordkeeping and reporting provisions to assure continuous compliance with the limitation are also adopted. Depending on the individual capacities of the units and how the constraints on operation are structured, it may be possible to craft a permit where heat input capacity as well maximum actual utilization never exceeds 250 mmBtu/hr.

**Question #2:** Does/can the presence of a physical design limitation, permitted as a “federally enforceable design limitation”, of how much steam the facility can consume, by thermodynamic certainty, of 220.226 mmBtu/hr, and being satisfied by the firing of a maximum of only any five of the six boilers with a total combined heat input capacity of at least 234.355 mmBtu/hr and no more than 242.725 mmBtu/hr, define the equivalent total combined heat input capacity of the facility’s boilers evaluated to determine whether it belongs to the PSD “List of 28” source category for fossil-fuel boilers? In this example, since the maximum steam demand of the facility, as currently permitted and configured, is the equivalent of 220.226 mmBtu/hr, the facility would not be designated as a “List of 28” source. Should physical changes or changes in the method of operation be made in the future that affect the facility’s steam demand, its status with regard to the “List of 28” would necessarily be revisited, in similar fashion, during that subsequent permit action.

**Response:** Any permit restriction taken by a source to avoid falling within the definition of major stationary source must be enforceable legally and as a practical matter. While inherent physical design limitations can be considered, EPA does not consider the suggested approach, based on estimations of theoretical process steam demand under design operating conditions, to be adequate to support a finding of being an inherent physical limitation of the total heat input to avoid being designated as one of the 28 listed sources.

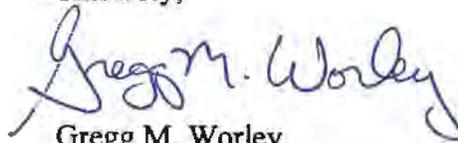
**Question #3:** An alternative project discussed was of only building two new boilers and retaining the existing boilers. Is the PSD major modification threshold 250 tpy for an existing minor PSD source not on the “List of 28”, even though following the project, the facility would become a “List of 28” source? Put another way, does the designation as being on or off the “List of 28” occur at the time a project that would bring the total heat input capacity over 250 mmBtu/hr is proposed, or only after the project is completed?

**Response:** In general, under PSD if an existing stationary source is minor for PSD and it adds additional emissions units that are by themselves also minor for PSD, then PSD is not triggered for the additional emissions units. However, the source will be considered an existing major source for PSD for any future changes if the source's emissions of any regulated pollutant exceed the relevant thresholds. Note that the addition of one or more emissions units to an existing minor stationary source for PSD is subject to PSD if the additional units are by themselves major for PSD. For your proposed Griffin Industries scenario, assuming that the combined heat input of the two new fossil-fuel fired boilers is less than 250 mmBtu/hr and the emissions, or potential to emit, of each regulated pollutant is less than 250 tons per year, then the addition of the new boilers is not subject to PSD review because the project is not a major modification to an existing major stationary source. However, any major modification after the addition of the two new boilers, as described, would be subject to PSD if the existing source emits, or has the potential to emit, any regulated pollutant in major amounts because at that time the existing source would be a major PSD source.

Major stationary sources and major modifications are required by the Clean Air Act to obtain applicable major NSR construction permits (PSD permits for attainment pollutants, nonattainment NSR permits for nonattainment pollutants) before beginning actual construction. Note that these permit programs require that all projects be carefully reviewed prior to construction. An implicit understanding in the application is that it comports with the true design and intended operation of the project. Permits inconsistent with this understanding will be considered "sham" permits, which are not allowed by the Clean Air Act. For example, a permit may be considered sham if the permit applicant requests a minor construction permit for only a portion of the intended project, and then applies for another minor construction permit for the remainder of the project. Regardless of the sequencing of the permit applications, the project on the whole is major and subject to major NSR permitting prior to construction of any portion of the project. In such cases, EPA considers void the initial minor source construction permit for that portion of the project and will take appropriate enforcement action to prevent the source from constructing or operating without the appropriate major NSR construction permit covering emissions for all portions of the project.

If you have any questions concerning the guidance in this letter, please call Heather Ceron at 404-562-9185, or John Calcagni at 919 541-9775.

Sincerely,



Gregg M. Worley  
Chief  
Air Permits Section

