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April 20, 2012

VIA E-DOCKET

U.S. Environmental Protection Agency
Air & Radiation Docket and Information Center
1200 Pennsylvania Ave. NW, Mail Code 2822T
Washington, DC 20460

**Re: Docket ID No. EPA-HQ-OAR-2009-0517
Prevention of Significant Deterioration and Title V Greenhouse Gas
Tailoring Rule Step 3, GHG Plantwide Applicability Limitations and GHG
Synthetic Minor Limitations Proposed Rule
77 Fed. Reg. 14226 (March 8, 2012)**

Dear Sir or Madam:

The Council of Industrial Boiler Owners (CIBO) appreciates the opportunity to comment on EPA's Proposed rule: Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas (GHG) Tailoring Rule Step 3 and on EPA's proposed streamlining approaches.

CIBO is a broad-based association of industrial boiler owners, architect-engineers, related equipment manufacturers, and university affiliates with members representing 20 major industrial sectors. CIBO members have facilities in every region of the country and a representative distribution of almost every type of boiler and fuel combination currently in operation. CIBO was formed in 1978 to promote the exchange of information within the industry and between industry and government relating to energy and environmental equipment, technology, operations, policies, law and regulations affecting industrial boilers. Since its formation, CIBO has been active in the development of technically sound, reasonable, cost effective energy and environmental regulations for industrial boilers. CIBO supports regulatory programs that provide industry with enough flexibility to modernize – effectively and without penalty – the nation's aging energy infrastructure, as modernization is the key to cost-effective environmental protection.

CIBO's members own and operate boilers which combust fuels which emit GHG emissions. Thus, CIBO's members are affected by EPA's GHG Tailoring proposals. CIBO has many members with facilities with all levels of GHG emissions - some facilities whose GHG emissions that are over the current tailoring thresholds and some facilities that are currently under the GHG tailoring thresholds.

OVERVIEW OF RULE

EPA proposes to maintain the current Tailoring Rule Threshold at 100,000 TPY CO₂e for Step 3 of the Tailoring rule for a variety of reasons. EPA points out that states are not equipped to handle any increase in permitting burden related to GHG emissions, and the benefit associated with lowering the GHG thresholds are minimal. EPA also points out that neither states nor EPA itself has yet had time to implement streamlining for GHG permitting. EPA proposes approaches to limit GHG emissions including two types of plantwide applicability limitations (PALs) and a Federally Enforceable State Operating Permit (FESOP) permitting option. EPA also mentions other streamlining that may be pursued in the future.

COMMENTS

I. EPA should adopt a different interpretation of the CAA which would avoid much of the need for Tailoring the CAA to accommodate regulation of GHGs.

This alternate approach, suggested in CIBO's comments dated December 23, 2009 on the original Tailoring Rule, and by others suggests that EPA should interpret the Clean Air Act (CAA) to mean that GHGs are pollutants "subject to regulation," but that PSD is only triggered after a National Ambient Air Quality Standards (NAAQS) is established for a given pollutant. This approach is supported by the structure and logic of the CAA. PSD permitting only applies for pollutants for which a NAAQS has been set, since that is the basis for attainment status determinations and therefore PSD applicability. Then, PSD only applies for significant increases of pollutants for which NAAQS have been set and designations have been made. This approach would lead to less burdensome "unintended consequences" associated with regulating GHG emissions under the CAA, which was designed to regulate pollutants emitted at much lower rates than GHGs.

As EPA is aware, EPA's GHG rules are the subject of legal challenges pending in the DC Circuit.¹ Oral argument has been heard and the court will decide on whether significant deficiencies exist in EPA proposed rules. In the meantime, EPA should not proceed to build on the rules but should await a decision by the court on the Tailoring Rule that underlies this proposed rule.

II. To the extent that EPA insists on its interpretation, CIBO supports the proposal not to lower the GHG threshold in Step 3 and urges EPA not to lower the GHG threshold below 100,000 TPY in any future step.

A. The current threshold makes many facilities major for PSD that would not be major for PSD based on conventional pollutants and EPA should not increase this burden.

As articulated in our previous comments,² and as shown below, even at the current threshold of 100,000 TPY CO₂e, a well-controlled new facility could be minor for all conventional pollutants but

¹ *Coalition for Responsible Regulation v. EPA*, No. 10-1073 (D.C. Cir. Filed April 2, 2010); *American Chemistry Council v. EPA*, No. 10-1167 (D.C. Cir. Filed July 6, 2010).

² CIBO Comments on EPA's Proposed Rule, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, EPA-HQ-OAR-2009-0517-4243 (Dec. 23, 2009).

easily over the threshold for GHG emissions. Indeed, as articulated below, facilities with CO2 emissions over 300,000 TPY CO2e would often be minor for other PSD pollutants. Thus, in the absence of GHG regulation under the CAA, modifications at these facilities (which without GHGs would be minor sources) would be subject to state permitting for increases in emissions that are greater than PSD significance levels (i.e. 10 TPY for PM2.5 or 40 TPY for NOx, SO2 or VOC). However, with GHG regulation under the CAA, these same facilities would now be subject to complex PSD permitting if desired changes for these facilities were over the significance thresholds.

For example, a facility with 200 MMBTU/hr aggregate total combustion capacity burning natural gas would emit 100,000 TPY CO2e, but using emission factors for low NOx equivalent to 40 ppm that facility would emit well under 50 TPY of NOx.³ Presuming a CO limit of 200 ppm, emissions of CO for that facility would be less than 130 TPY.⁴ Further, with a CO limit of 100 ppm, which is readily achievable for gas combustion, emissions of CO would be 65 TPY.⁵ Emissions of all other pollutants from gas (SO2, VOC and PM 2.5) are substantially lower than NOx emissions, since emission factors for each of these pollutants from natural gas are much smaller than the emission factor for NOx and CO. Thus, it follows that a facility subject to the 250 TPY PSD major source threshold could readily be minor for conventional PSD pollutants but could emit over 300,000 TPY CO2e.⁶

One member company has recently installed a well-controlled new facility which is not in one of the 28 New Source Performance Standards (NSPS) categories so is subject to the 250 TPY PSD major source thresholds. This facility has a Potential to Emit (PTE) of 215 TPY of NOx and VOC, 230 TPY CO, with PM 2.5 emissions of 140 TPY and <10 TPY SO2 emissions. (The facility has installed low NOx natural gas burners on its boilers and other combustion equipment). However PTE for GHG emissions at this facility is just over 300,000 TPY CO2e. Thus, but for GHG emissions, this site would not be a major emitting facility for PSD purposes. There are likely to be many other facilities that are minor for all pollutants other than CO2e at the current tailoring threshold.

B. Regulating GHGs under the CAA and PSD is making smaller sources subject to federal permitting rather than state permitting for modifications. This inhibits small businesses' ability to compete effectively in the marketplace.

Under its regulations, EPA considers sources that are major for GHGs to be major for all PSD pollutants. If EPA were to apply PSD only to pollutants subject to a NAAQS, this would not be the case. This interpretation of "major source" is consistent with the meaning of the CAA and is well within EPA's authority to adopt.

³ For natural gas combustion, 40 ppm NOx is equivalent to an emission factor of 50.9 lb/MMCF. Using this factor across a facility with 200 MMBTU/hr aggregate total combustion capacity using natural gas yields NOx emissions of 42.5 TPY. (50.9 lb/MMBTU*1 ton/2000 lb*1 CF/1050 BTU* 200 MMBTU/hr*8760 hrs/yr).

⁴For natural gas combustion, 200 ppm CO is equivalent to an emission factor of 155 lb/MMCF Using this factor across a facility with 200 MMBTU/hr aggregate total combustion capacity using natural gas yields CO emissions of 129.3 TPY (155 lb/MMCF *1 ton/2000 lb*1 CF/1050 BTU* 200 MMBTU/hr*8760 hrs/year).

⁵ Similarly, a 200 MMBTU/hr facility with CO emissions of 100 ppm results in annual emissions of 65 TPY CO. (CO EF for 100 ppm = 77.5 lb/MMCF).

⁶ Using the 100 ppm CO limit and presuming CO emissions to be the limiting factor as in the prior example, a facility combusting natural gas with an aggregate 600 MMBTU/hr of combustion capability would emit less than 200 TPY of CO (600 MMBTU/hr * 77.7 lb/MMCF*1 CF/1050 BTU*8760 hrs/yr*1 ton/2000 lbs = 194 tpy CO). That same facility, would emit over 300,000 TPY of CO2e using the emission factor for CO2 only for simplicity (i.e. 600 MMBTU/hr *8760hrs/yr*1 CF/1050BTU*120066 lb CO2/MMCF* 1 ton/2000 lb = 300,500 TPY CO2).

However, under the current GHG regulatory framework once a facility is major for GHG emissions, it is major for other PSD pollutants and thus, cannot increase PM_{2.5} by more than 10 TPY without triggering PSD.

EPA has not properly considered or analyzed the number of state permitting actions that are over the PSD significance thresholds for PM_{2.5}, PM₁₀, NO_x, SO₂, VOC or CO. As the basis for its rulemaking, EPA must evaluate the increased burden on PSD permitting associated with the current approach that federalizes state permitting actions. EPA should survey states to determine how many minor permit actions are completed annually that increase emissions at a facility by more than significance thresholds. In order to estimate PTE of GHG emissions at these facilities, EPA can simply add up the combustion capability across the site and apply CO₂ emission factors for the fuels combusted. This would provide a much more realistic picture of the implications on business than EPA's prior analysis of impacts.

Thus, in order for EPA to analyze the true impact of GHG tailoring threshold changes, a more accurate analysis is needed, which would include an assessment of minor source permitting analysis as described above. This would provide a better assessment of the true implications of staying at Step 2 vs. returning to Step 1 of the tailoring rule. Step 1 of the tailoring rule does not federalize state permitting. However, as mentioned above, Step 2 – with the current tailoring threshold -- penalizes some well controlled sources of conventional pollutants by inhibiting changes that would increase emissions of conventional pollutants above significance levels.

Again, by way of example, a member company has a facility that is not in one of the 28 NSPS categories so is subject to the 250 TPY PSD Major Source Thresholds. The facility's conventional pollutants are under the PSD threshold, but GHG emissions at this facility are above 100,000 TPY CO_{2e}. Thus, but for GHG emissions, this site would not be a major emitting facility for PSD purposes. Without considering GHG emissions, the site would be a minor site and would be subject to state minor new source review (NSR) permitting. The site would like to add a new process whose emissions add 20 TPY of PM_{2.5} emissions. All other changes associated with the new process are below significance levels. But for the fact that GHG emissions make the facility major, the site would be able to add this process by getting a minor source permit from the state. However, because GHGs are a regulated air pollutant, this facility is now subject to federal PSD construction permitting rather than state construction permitting. Because the site is major for GHG emissions, under EPA's interpretation, the site is major for all PSD pollutants and because the emission increase in PM_{2.5} is above the significance threshold a Federal PSD construction permit is required. Recognizing that the desired change would trigger PSD permitting and recognizing the difficulty associated with modeling to demonstrate PM₁₀ or PM_{2.5} attainment with the NAAQS and increments, this company has not approached the state agency about permitting.

Indeed, many projects within industry have been stalled or not even attempted because of the inability to obtain PSD permits because of problems modeling for the new more stringent 1-hr NO_x or 1-hr SO₂ NAAQS standards or even for the PM_{2.5} NAAQS standards and increments. Thus, the fact that EPA now makes defines as major sources for all PSD pollutants, facilities that emit more than 100,000 TPY CO_{2e}, this facility cannot expand without finding a way to reduce PM_{2.5} emissions at the facility sufficiently to avoid PSD. However, because this is a new facility that employs the best

control technologies already, finding ways to reduce PM2.5 from the current facility would be prohibitively expensive.

C. Small businesses are not equipped to accommodate this substantial additional PSD burden and are not in a position to net out or avoid PSD. This inhibits businesses' ability to make improvements needed to remain competitive.

Focusing primarily on the challenges that small sources of conventional pollutants have because they become major for PSD because of GHG emissions and then cannot increase amounts of conventional pollutants above significance levels without triggering federal PSD permitting, it should be noted that smaller sources of emissions are unlikely to have large sources of uncontrolled emissions of conventional pollutants necessary to net – out of PSD.

Major sources have relied on their ability to make emission reductions elsewhere at a facility to net out of PSD permitting in order to get timely permits for necessary changes. Given the complex requirements of PSD, subjecting small sources of conventional pollutants to full-blown PSD simply because they are major for GHGs inhibits their ability to remain competitive.

Small businesses do not have the economic or administrative resources to maneuver the complexities of the federal PSD permitting system. While PSD permitting requires installation of Best Available Control Technology (BACT) for certain modifications, some of the most complex aspects of PSD permitting are the modeling assessments of air quality impact on the NAAQS or increments, and the assessments of Class I requirements and other air quality related values that may apply. EPA should undertake a serious study of the complexities and costs associated with meeting the requirements for seeking a PSD permit. As the NAAQs are ratcheted down, the ability to model any improvements to a facility grows correspondingly more challenging and is cost-prohibitive for small firms.

D. Even larger facilities with substantial resources are having difficulty obtaining PSD permits today.

A significant number of businesses have highlighted problems obtaining PSD permits due to difficulty passing modeling requirements for the new 1-hr NO₂ and SO₂ NAAQS standards and the more stringent PM_{2.5} NAAQS standard. It is important to find ways to resolve these issues so that well controlled facilities can obtain PSD permits.

At the same time, EPA should be aware of how its own policies for GHG permitting will add to this substantial problem by making small “GHG-only sources” (i.e. sources that are not major for pollutants other than GHGs) into major PSD sources for GHGs as well as conventional pollutants. Again, by transforming state permitting actions into federal permitting actions for increases in conventional pollutant emissions which fall above significance levels, EPA is raising the bar for small source permitting, making it substantially more difficult for those sources to obtain permits for necessary business modifications.

E. EPA should not interpret the lack of GHG or PSD permits related to GHG emissions as an indication that there is not a problem at the current GHG threshold.

EPA has highlighted the fact that the number of GHG permits requested is smaller than anticipated. There are many reasons for this. First, a number of permit actions were expedited to occur before the Tailoring Rule became effective. In addition, because PSD permitting is so burdensome and difficult to accomplish, facilities often do not approach regulatory agencies with desired projects that would be required to go through PSD permitting. In some cases, facilities simply add the costs of applying BACT technology to the project cost and the resulting payout is insufficient to fund. In other cases, a facility's preliminary modeling shows that meeting the PSD modeling requirements will be very challenging. In these situations, many facilities do not seek permits or move these projects forward.

F. EPA should not lower the threshold below the current level now or in the future.

For all of the reasons stated above, as well as reasons articulated in our previous comments, EPA should not lower the GHG tailoring thresholds now or in the future.

Because PSD and Title V permitting are based on PTE rather than actual emissions, as EPA lowers the threshold, more and more sources are swept out of state permitting structures and into the federal permitting process. These facilities are generally smaller facilities with less access to sophisticated resources. Given the complexity of the federal permitting requirements – both Title V and PSD -- it would be a tremendous burden on even smaller facilities to have to meet these complex requirements. Personnel in the environmental roles would have to be trained and to understand and assure compliance with the complex PSD applicability assessment process. Alternatively, those site resources would need to be supplemented with consultants and others who dedicate themselves configuring compliance strategies for EPA regulations.

As EPA notes in the Step 3 proposal, there is little benefit to lowering the GHG threshold from 100,000/75,000 TPY GHG emissions to as low as 60,000 /60,000 or even 50,000/50,000 levels. 77 Fed. Reg. 14,237-238. Lowering the GHG threshold to 60,000 major source threshold with a 60,000 significance level “would bring with the potential ambit of the PSD program less than an additional 1 percent of all GHG emissions from all stationary sources above the statutory thresholds while potentially adding a significant number of sources into the permitting programs. This is because of the large amount of GHG emissions that comes from very large sources, coupled with the relatively small number of additional sources that emit between the 100,000/75,000 and the 60,000/60,000 levels.” 77 Fed. Reg. 14,237.

G. EPA should revise its approach so that future reductions to the GHG threshold are not necessary.

Despite the minimal benefit and the substantial implications for increased federal permitting, EPA's interpretation of the CAA created a need for the “administrative necessity” and “absurd results” doctrines, in order to reduce the threshold to approach the thresholds designed for conventional pollutants in the CAA. This is simply unworkable. Further reductions to the threshold are unworkable. Not only will state permitting resources be further strained, but US industrial

competitiveness will be constrained by federalization of state permitting and the severe complexities associated with obtaining PSD permits.

We urge EPA to re-think approaches to this solution and find a permanent solution that is more workable than the path EPA is currently on, which seems to offer little benefit to EPA, but imposes inordinate burdens on states and regulated entities.

One option we have previously urged EPA to consider and urge EPA to reconsider is for PSD to be triggered only after a NAAQS is established for a given pollutant. This approach is supported by the structure and logic of the CAA. Then, PSD only applies for significant increases of pollutants for which NAAQS have been set and designations have been made. BACT would be required for GHG sources as described in Step 1 and NSPS performance standards for GHG emissions could be developed.

III. EPA's proposed PAL Streamlining Approaches offer little in the way of streamlining and seem to complicate processes already in place by states to limit emissions of pollutants.

EPA proposes several approaches for streamlining “GHG-only” sources, including two PAL approaches – the “major source opt-in approach” and the “minor source approach.”⁷ The major source opt-in approach gives GHG-only sources the opportunity to become existing major stationary sources and thus receive PALs for GHGs and any other pollutant emitted by the source. The “minor source approach” allows GHG-only sources to remain minor for pollutants other than GHGs but to obtain a GHG PAL. It is not apparent why sources would need or want to obtain PALs in order to limit emissions of GHGs because simpler approaches seem to be available to limit GHG emissions rather than PALs. However, of the two options suggested, the “minor source approach” would seem to be more tenable for industry than the “major source opt-in approach”. It is unclear why any source would want to opt to be a major source and be subject to major source PSD. Again, PALs may be a solution in certain circumstances – perhaps where a significant number of known changes are planned and contemplated in advance. However, PALs are complex instruments to negotiate and the fact that they expire after a fixed period of time leave businesses with significant uncertainty about future operations.

Thus, while EPA's approaches may assist EPA in some situations, we urge EPA to clarify that approaches currently employed by states to limit the PTE of pollutants may be used to limit GHGs so in most cases, EPA's proposed approaches are unnecessary.

⁷ EPA refers to sources that are minor for PSD for conventional pollutants but major for GHG emissions 77 Fed. Reg. 14,239, fn 31.

IV. EPA’s proposed Federal Synthetic Minor Source Permitting Authority for GHGs is unnecessary and overly complex.

EPA proposes other “streamlining” approaches including Federal Synthetic Minor Source Permitting Authority for GHGs. This is to avoid PSD major source/major modification and Title V applicability in areas subject to GHG Federal Implementation Plan (FIPs) and Indian Country. EPA proposes these changes in case there is a gap and states do not have viable mechanisms to issue synthetic minor limits for GHGs.

Further, EPA proposes language changes in 40 CFR Part 52 Subpart A adding paragraph (dd) Synthetic minor permits. In this language EPA proposes certain requirements for Synthetic Minor Permit applications. 77 Fed. Reg. 14,260-262. This section includes over 5 pages of excessively new detailed requirements for synthetic minor permits. Among these requirements for GHG synthetic minor synthetic minor permits are:

(dd)(3)(v)(b) Proposed testing, monitoring, recordkeeping, and reporting requirements to be used to demonstrate and assure compliance with the proposed emission limitation, ...[and]

(dd)(3)(v)(f) Description and estimated efficiency of air pollution control equipment under present and anticipated conditions.

First, it is unclear why additional authority is necessary. States have authority to draft terms and conditions which can limit fuel emissions in a much simpler manner than proposed here. It is unclear why EPA needs the authority over minor source permitting they are requesting. EPA should allow states to use existing authority and to delete the overly complex permit application requirements proposed in this section, since they are unnecessary and add excessive unjustifiable complexity.

EPA also suggests several other “streamlining” items being considered including redefining PTE and source category specific PTE rules, General Permitting for GHGs and presumptive BACT for GHGs.

First, it is unclear why additional authority is necessary. States have authority to draft terms and conditions which can limit fuel emissions in a much simpler manner than proposed here. It is unclear why EPA needs the authority over minor source permitting they are requesting. EPA should allow states to use existing authority and to delete the overly complex permit application requirements proposed in this section, since they are unnecessary and add excessive unjustifiable complexity. EPA even notes that the use of general Permits in NJ is limited to boilers and heaters less than 5 MMBtu/hr, thus indicating how such an approach is only useful for very small sources more closely associated with commercial facilities. 77 Fed. Reg. 14,250.

V. EPA should adopt PTE policy guidance for GHG emissions similar to what was done in the initial Title V permit roll-out.

EPA should develop PTE policy guidance for GHG emissions, similar to what EPA did during initial Title V permitting. EPA should adopt a generic PTE policy for GHGs that protects any

source that has actual emissions less than 50% of the “major source” thresholds from needing to apply for and receive a Title V FESOP. EPA guidance initially deferred Title V permitting for sources that actually emitted less than 50% of the 100 TPY Title V “major source” thresholds⁸ in order to prevent States from being deluged with Title V permit applications for “small sources” allowing them to issue Title V permits for the largest emitting sources first. This EPA guidance sunset on December 31, 2000,⁹ with the expectation that States had had sufficient time to create permit mechanisms so that sources could apply for and be issued FESOP limits that capped their source’s emissions below Title V major source definitions. Similar guidance should be implemented immediately while EPA and the states sort out how many sources will need to acquire FESOPs in order to legally avoid PSD permitting.

VI. EPA Needs to Amend the Definition of Regulated NSR Pollutant or Cross Reference it to the Definition of “Subject to Regulation” in the Phase 1 Tailoring Rule to Avoid NSPS Triggering PSD for GHGs if “Any” GHG Increase occurs.

EPA must amend the terms “NSR Regulated Air Pollutant” to avoid triggering PSD for any increase in GHGs before EPA finalizes a NSPS for GHGs, to avoid undoing the tailoring rule. This is particularly urgent since EPA has proposed promulgation of a CO₂ standard in the proposed Carbon Pollution Rule, NSPS Subpart TTTT. The problem lies in the definitions of regulated NSR pollutant, major stationary source and major source. While EPA has included a discussion of this issue in the preamble language to proposed NSPS Subpart TTTT, we recommend a more straightforward solution below.

As highlighted in Attachment A which include detailed references in 40 CFR 52.21¹⁰, the problem is that the definitions of Major Source and Major Modification 52.21 (b) (1) and (2) reference the term “regulated NSR Pollutant” contained in 52.21 (50). While EPA did modify some aspects of the definition of Regulated NSR pollutant in the tailoring rule to reference the subject to regulation definition in (b) (49) of that part, EPA did not modify 52.21 (b) (50) (ii). Thus, 52.21 (b) (50) reads:

- (50) Regulated NSR Pollutant, for purposes of this section, means the following:
- (i) Any pollutant for which a national ambient air quality standard has been promulgated and...
 - (ii) Any pollutant that is subject to any standard promulgated under Section 111 of the act....**
 - (iv) Any pollutant that otherwise is subject to regulation under the Act as defined in paragraph (b) (49)

⁸ Also see J. Seitz, R. Van Heuvelen, *Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act 1/25/95*.

⁹ See J. Seitz, E. Schaeffer, “*Third Extension of January 25, 1995 Potential to Emit Transition*” Policy (Dec. 20, 1999).

¹⁰ Similar language issues must be addressed in 40 CFR 51.166 (b) (49) (ii) which contain the same definitions highlighted above.

Given that EPA's developing NSPS standards under Section 111 of the CAA to address GHG, we urge EPA to address this outstanding issue. Specifically, CIBO recommend that EPA amend 52.21(b)(50)(ii) to read as follows:

“(ii) Any pollutant **(other than GHG)** that is subject to any standard promulgated under section 111 of the Act.”

If you have any questions concerning our comments or require clarification, please contact me at 540.349.9043. Thank you for your consideration.

Sincerely yours,

/s/ Robert D. Bessette

Robert D. Bessette
President

Attachment A
Regulatory References for 40 CFR 52.21 Related to Regulated NSR Pollutant

52.21 (b) (ii)

(b) Definitions. For the purposes of this section:

(1)

(i) **Major stationary source** means:

(a) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any **regulated NSR pollutant**: Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants (with thermal dryers), primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants;

(b) Notwithstanding the stationary source size specified in paragraph (b)(1)(i) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of a **regulated NSR pollutant**; or

(2)

(i) **Major modification** means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(40) of this section) of a **regulated NSR pollutant** (as defined in paragraph (b)(50) of this section); and a significant net emissions increase of that pollutant from the major stationary source.

(49) Subject to regulation means, for any air pollutant, that the pollutant is subject to either a provision in the CAA or a nationally-applicable regulation codified by the Administrator in subchapter C of this chapter, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that:

- i. Greenhouse gases (GHGs), the air pollutant defined in 86.1818-12 (a) of this chapter as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride, shall not be subject to regulation except as provided in paragraphs (b) (49) (iv) through (v) of this section
- ii. For purposes of paragraphs (b) 48 (iii) through (v) of this section, the term tpy CO₂ equivalent emissions (CO₂e) shall represent an amount of GHGs emitted and shall be computed as follows:
 - a. Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of part 98 of this chapter – Global Warming Potentials
 - b. Sum the resultant value from paragraph (b) (49) (ii) (a) of this section for each gas to compute a tpy CO₂e.
- iii. The term emission increase as used in paragraphs (b) (49) (iv) through (v) of this section shall mean that both a significant emission increase (as calculated using the procedures in (a) (2) (iv) of this section) and a significant net emissions increase as defined in paragraphs (b) (3) and (b) (23) of this section) occur. For the pollutant GHGs, an emissions increase shall be based on tpy CO₂e, and shall be calculated assuming the pollutant GHGs is a regulated NSR pollutant, and “significant” is defined as 75,000 tpy CO₂e instead of applying the value in paragraph (b) (23) (ii) of this section.
- iv. Beginning January 2, 2011, the pollutant GHGs is subject to regulation if:
 - a. The stationary source is a new major stationary source for a regulated NSR pollutant that is not GHGs and also will emit or have the potential to emit 75,000 tpy CO₂e or more; or
 - b. The stationary source is an existing major stationary source for a regulated NSR pollutant that is not GHGs, and also will have an emissions increase of a regulated NSR pollutant and an emissions increase of 75,000 tpy CO₂e or more; and,
- v. Beginning July 1, 2011, in addition to the provisions in paragraph (b) (49)(iv) of this section, the pollutant GHGs shall also be subject to regulation:
 - a. At a new stationary source that will emit or have the potential to emit 100,000 tpy CO₂e; or
 - b. At an existing stationary source that emits or has the potential to emit 100,000 tpy CO₂e, when such stationary source undertakes a physical change or change in the method of operation that will result in an emissions increase of 75,000 tpy CO₂e or more

(50) *Regulated NSR pollutant*, for purposes of this section, means the following:

(i) Any pollutant for which a national ambient air quality standard has been promulgated and any pollutant identified under this paragraph (b)(50)(i) as a constituent or precursor for such pollutant. Precursors identified by the Administrator for purposes of NSR are the following:

(a) Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas.

(b) Sulfur dioxide is a precursor to PM_{2.5} in all attainment and unclassifiable areas.

(c) Nitrogen oxides are presumed to be precursors to PM_{2.5} in all attainment and unclassifiable areas, unless the State demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to that area's ambient PM_{2.5} concentrations.

(d) Volatile organic compounds are presumed not to be precursors to PM_{2.5} in any attainment or unclassifiable area, unless the State demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of volatile organic compounds from sources in a specific area are a significant contributor to that area's ambient PM_{2.5} concentrations.

(ii) Any pollutant that is subject to any standard promulgated under section 111 of the Act;

(iii) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act;

(iv) Any pollutant that otherwise is subject to regulation under the Act as defined in paragraph (b) (49) of this section.

(v) Notwithstanding paragraphs (b) (50) (i) through (iv) of this section, the term regulated NSR pollutant shall not include any or all hazardous air pollutants either listed in section 112 of the act, or added to the list pursuant to section 112 (b) (2) of the Act, and which have not been delisted pursuant to section 112 (b) (3) of the Act, unless a listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act.