



State of Ohio Environmental Protection Agency

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U.S. Environmental Protection Agency  
Air and Radiation Docket and Information Center  
Attention: Docket No. OAR-2009-0517  
Mailcode: 6102T  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

To Whom It May Concern:

Pursuant to the solicitation for public comment published in the *Federal Register* on October 27, 2009 (74 FR 55292), the Ohio EPA is pleased to provide the enclosed comments on the U.S. Environmental Protection Agency's (EPA's) Tailoring Rule proposal to temporarily modify the major source applicability thresholds for greenhouse gas (GHG) emissions under the Prevention of Significant Deterioration (PSD) and Title V programs of the Clean Air Act (CAA or Act) and to set a temporary PSD significance level for GHG emissions.

Thank you for the consideration of these comments.

If you have any questions, please contact Robert Hodanbosi at 614-644-2270.

Sincerely,

Chris Korleski,  
Director

Enclosure

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

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Ohio EPA's Comments on  
U.S. EPA's Proposed Prevention of Significant Deterioration and Title V  
Greenhouse Gas Tailoring Rule

I. Background

U.S. EPA is proposing to “tailor” the major source applicability threshold requirements for greenhouse gas (GHG) emissions under the Prevention of Significant Deterioration (PSD) and the Title V programs within the Clean Air Act. Currently, a facility is subject to PSD requirements only if they emit “regulated New Source Review (NSR) pollutants” at specified thresholds. U.S. EPA does not consider GHG emissions to be a “regulated NSR Pollutants” under the PSD program because GHG emissions have not been “subject to regulation” requiring actual controls under any other section of the Clean Air Act.<sup>1</sup> Furthermore, U.S. EPA expects to promulgate a final rule for Light-Duty Vehicle GHG Emission Standards and CAFE Standards under the Clean Air Act in March 2010<sup>2</sup>. When this rule becomes effective U.S. EPA believes GHGs will be “subject to regulation” and immediately trigger PSD requirements for this new pollutant.<sup>3</sup>

Based on U.S. EPA's current interpretation of when a pollutant is “subject to regulation”, if U.S. EPA does not “tailor” the current PSD major source applicability threshold of 100 tons per year (tpy)/250 tons per year (tpy) (depending on the source category), then sources that emit greenhouse gas emissions at these levels would be subject to the PSD requirements when the Light-Duty Vehicle GHG Standard becomes effective in 2010. This would include millions of new sources, including residences, hospitals, apartment buildings and schools, hindering the ability for permitting authorities to process permits and subjecting small sources to PSD requirements.

II. General comments

Ohio EPA understands the importance of regulating greenhouse gas emissions to prevent the endangerment of public health and the environment through the impacts of climate change. It is clear to us that climate change is a serious problem that we must tackle as a nation in a rigorous and practical manner. By and large, Ohio EPA is in favor of regulating GHG emissions through federal legislation rather than the existing Clean Air Act and we are educating our state representatives the importance of passing federal climate change legislation that will achieve GHG emission reductions through 2050 and that takes into account the impact GHG legislation will have on the industrial Midwest. Our comments are directed solely to the implementation of Title V and PSD to GHG emissions. We still believe that federal legislation is needed to control GHG emissions in a comprehensive fashion.

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<sup>1</sup> U.S. EPA's policy interpretation referring to triggering requirements under the PSD program based on GHGs being “subject to regulation” under the Clean Air Act is described in U.S. EPA's PSD Interpretive Memorandum written by former Administrator Stephen Johnson to Regional Administrators on December 18, 2009. (Also referred to the “Johnson Memo”)

<sup>2</sup> “Proposed Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and CAFE Standards” 74 FR 49454 Proposed in FR on September 28, 2009.

<sup>3</sup> U.S. EPA proposed a reconsideration of the Johnson Memo where they interpret that a pollutant is “subject to regulation” when a regulation becomes effective. 74 FR at 51535.

By way of background, U.S. EPA is proposing a tailoring rule for PSD and Title V requirements based on U.S. EPA's current interpretation of when a pollutant is "subject to regulation" under the Clean Air Act. We commented on U.S. EPA's interpretation for when PSD requirements should be triggered and we believe PSD requirements would not be triggered until the time a pollutant is actually being controlled under a final regulation. In the case of the Light-Duty Vehicle GHG Standards, the regulation will become effective in 2010 but the GHG emissions are not required to be controlled until 2012. Therefore, as a practical matter, GHG emissions would not be "subject to regulation" until 2012. Our interpretation significantly impacts the timing of when PSD requirements are triggered, however we will not outline the details of our rationale here. Please see our comments on the Johnson Memo Reconsideration for further details on our interpretation of "subject to regulation".

The Federal Register for this proposal explains why a threshold level of emissions greater than 100/250 tons per year is needed for PSD and Title V permitting for GHGs on the federal level. What U.S. EPA lacks is an appreciation of the issues that will arise on the state level if U.S. EPA goes forward with this approach without providing adequate time for the transition to permitting GHGs.

There must be a recognition by the federal government that having a rule immediately effective will place states in the position of having to either advise entities to violate state rules or the state agencies will be inundated with paperwork that serves no useful purpose. Virtually every state with a fully approved program has the lower Title V threshold in state rules or legislation. The day that U.S. EPA makes the rule effective means that sources will need to comply with the lower state threshold even if U.S. EPA has modified the federal rules. The federal government should not put the states in that position. U.S. EPA must grant states adequate time to modify the state requirements. Otherwise, states will be put into a position to have companies submit applications for thousands of sources or advise entities to "ignore" the effective rule. The same issues that U.S. EPA raise on a federal level about absurd results apply on the state level and U.S. EPA needs to provide states with adequate time to change laws and rules.

In terms of the PSD/Title V Tailoring Rule, U.S. EPA proposes as the first phase of this rule to modify the major source applicability threshold to 25,000 tpy of CO<sub>2</sub>e. As a second phase U.S. EPA will incorporate streamlining approaches such as presumptive best available control technology (BACT), general permitting or permit by rule after conducting a five year assessment of the permitting program. Ohio EPA has a number of concerns with U.S. EPA's proposed rulemaking approach relating to the program's administrability and implementation of the PSD/Title V program in the first phase of the rule.

- 1) The assumptions U.S. EPA uses to determine the amount of time a permit will take to process with new GHG requirements and the number of sources that will be subject to the PSD requirements are both grossly underestimated.
- 2) The major source applicability thresholds should be altered at the outset of the program to better reflect different source categories that emit GHG emissions.

- 3) U.S. EPA's regulatory approach creates a large time lag and information gap by which states are expected to implement the PSD program prior to U.S. EPA providing the proper guidance to adequately conduct a (BACT) determination.
- 4) U.S. EPA relies on States to determine a Title V fee structure, without any presumptive fee structure as U.S. EPA has done in the past.

On the whole, we are concerned that U.S. EPA has not placed enough emphasis on adequately assessing the impact of this proposed rule on State permitting authorities. We describe our concerns in detail below and alternative approaches we think would be more prudent for States to effectively implement a PSD/Title V program starting in 2010.

### III. Determining Applicability Thresholds:

U.S. EPA is proposing to set the major source applicability threshold at 25,000 tpy of CO<sub>2</sub>e for new sources and set a significance level for modified sources between 10,000 tpy CO<sub>2</sub>e to 25,000 tpy of CO<sub>2</sub>e. We agree that if PSD requirements are triggered in 2010, increasing the major source applicability threshold from the 100/250 tpy to a larger number is necessary to prevent permit gridlock in Ohio and other permitting authorities in the nation. However, we also believe that U.S. EPA has grossly underestimated the amount of sources that would be subject to PSD in the state of Ohio. We are most concerned with sources that would not otherwise have any federal air emissions permit requirements under the Clean Air Act, such as large hotels, office buildings, and hospitals that may be subject to PSD requirements based on the potential to emit 25,000 tpy of CO<sub>2</sub>e. For example, all a source would have to install is one 53.8 MMBTU/Hr natural gas boiler, or one 39 MMBTU/Hr oil boiler, or one 30.6 MMBTU/Hr coal boiler to trip the 25,000 tpy CO<sub>2</sub>e threshold for PSD review. We feel determining a 25,000 tpy CO<sub>2</sub>e threshold for sources is premature since there is not enough data to determine how many sources will truly be affected. U.S. EPA even admits to using numbers that may be highly uncertain. We suggest promulgating a major source applicability threshold that relies on the data from the GHG Mandatory Reporting Rule, using the results from the first reporting year in 2011. This way U.S. EPA and states will have better data to determine how permitting programs will be affected. Within this time frame U.S. EPA could also ramp up guidance for BACT requirements States will need, as described below, in our "BACT Requirements" Section. Since U.S. EPA is "tailoring" the requirements, U.S. EPA should design a practical program and not rely on the preconceived notion that 25,000 tons per year of CO<sub>2</sub>e is the proper threshold.

A. Ohio EPA's Alternative Approaches to Determining PSD Applicability Thresholds  
As part of our comments we are proposing three alternative approaches to U.S. EPA's major source applicability threshold of 25,000 tons of CO<sub>2</sub>e that we believe will more effectively reduce the burden on our permitting program in the State of Ohio during the first phase of the program.

1. Increase the applicability threshold to 100,000 tpy of CO<sub>2</sub>e for all sources, until BACT is better defined;

2. Use a two-step approach, first looking at a source's criteria pollutants for the 100/250 tpy threshold. Only if a source is considered major for criteria pollutants would GHG emissions be reviewed for PSD/Title V applicability;
3. Use a two-tiered approach based on a source's GHG emissions. Sources that fall under the 40 CFR Part 98.2(a)(1) of the Mandatory GHG Reporting Requirements would trigger PSD with 25,000 tons of CO<sub>2</sub>e and all other source categories would trigger PSD with 100,000 tons of CO<sub>2</sub>e.

(1) First Alternative Approach

Our first proposed approach is to increase the applicability threshold to 100,000 tpy of CO<sub>2</sub>e for all sources until the year 2015, then go to a lower threshold. The same logic or reasoning that is identified in the rule proposal can be applied at the 100,000 ton CO<sub>2</sub>e level versus 25,000 CO<sub>2</sub>e level. This would help reduce our permitting burdens in the beginning of the program and yet capture the largest GHG emission sources. Increasing the major source applicability threshold to this level will give U.S. EPA more time to develop BACT for a variety of source categories that may not be captured in this threshold. We believe the larger emitters of GHG would still be subject to PSD under this higher threshold. Since U.S. EPA is tailoring the rule to meet the administrative burdens associated with a 100/250 ton per year threshold, U.S. EPA should consider the burden on states and raise the limits.

(2) Second Alternative Approach

As a second option, we propose U.S. EPA define a source subject to PSD/Title V requirements and BACT for GHG emissions when a source triggers the major source applicability threshold at the existing 100/250 tpy on the basis of emissions from a criteria pollutant (NO<sub>x</sub>, VOC, CO, SO<sub>2</sub> or PM<sub>2.5</sub>). If the source is major for a criteria pollutant, then at that time the permitting authority would review a facility's potential to emit for GHG emissions using 25,000 CO<sub>2</sub>e to determine if the source is major for GHG emissions.

This approach would help the permitting program in Ohio deal with the first phase of a GHG PSD/Title V program by only applying to sources that would already be subject to PSD requirements at the outset of the program. We believe this line of logic is also aligned with the existing authority of the Clean Air Act for determining major source applicability through "regulated NSR pollutants". As an example, the two-step applicability test would first ask, 1) Is a source major for a criteria pollutant under PSD? If yes 2) the second step would determine if the source is major for GHG emissions at the 25,000 tpy CO<sub>2</sub>e threshold. If the answer to the first step is no, then the source is not subject to PSD for GHGs until the second phase of US EPA's permitting program rules are promulgated. It is possible that some larger GHG sources may not fall under PSD/Title V review based on non-GHG pollutants. To remedy this possible loophole, sources listed

under 40 CFR Part 98.2(a)(1)<sup>4</sup> of the Mandatory Reporting Requirements as “All-in Sources” must be evaluated on their GHG emissions for major source applicability regardless of the non-GHG NSR regulated pollutants.

(3) Third Alternative Approach

Our third preference is to create a two-tiered threshold requirements based on the GHG emissions from different sources categories. Source categories under 40 CFR Part 98.2(a)(1) of the Mandatory Reporting Requirements would trigger PSD if their potential to emit is 25,000 tpy of CO<sub>2</sub>e. Any source category not included in the above group would trigger PSD requirements at 100,000 tpy of CO<sub>2</sub>e.

This approach is similar to the existing PSD requirements where some sources trigger PSD at lower levels and other sources must have larger operations to be subject to PSD. We believe our approach would adequately cover the largest GHG emitters while reducing the burden on sources such as universities and hospitals. After U.S. EPA reviews the first reporting year of the Mandatory GHG Reporting Rule then U.S. EPA will have better information to determine if this approach is successful or needs modification. We believe that setting a 25,000 CO<sub>2</sub>e tpy threshold too early in the PSD/Title V program for all sources would create an extremely difficult burden on our agency and on smaller sources. U.S. EPA should utilize the Mandatory GHG Reporting Rule as a tool to better understand how sources that normally wouldn't require an air permit, or may be a minor source, would be impacted by different PSD major applicability thresholds.

IV. GHG Emissions

U.S. EPA asks for comments on how to treat GHG emissions in developing the PSD permitting threshold. From an air pollution control perspective, it is our opinion that the permitting program should measure the primary six greenhouse gases (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)) as one GHG metric in carbon dioxide equivalents (CO<sub>2</sub>e). That would mean, for example, that emissions from methane that has a value of 23 times the global warming potential of CO<sub>2</sub> would equate to 23 tons of CO<sub>2</sub>e when determining permitting major source applicability thresholds. Summing the six applicable greenhouse gas emissions into one GHG metric is a more effective system for permitting authorities and also creates more opportunities to reduce emissions over the full class of GHG emissions rather than focusing on reducing GHG emissions pollutant-by-pollutant. For some pollutants that may consist of a smaller mass but a high global warming potential it may be difficult for facilities to reduce GHG emissions for each pollutant. We think that grouping GHG emissions is an effective approach since each GHG pollutant differs only in the strength of warming or lifetime in the atmosphere. Therefore, Ohio EPA believes grouping the pollutants together would be the best way to manage all six GHG pollutants for PSD applicability.

<sup>4</sup> 40 CFR Part 98(a)(1) can be found at: <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=9609e9203c33291e3991db1dcfabcb65;rgn=div2;view=text;node=20091030%3A1.37;idno=40;cc=ecfr;start=1;size=25>

By grouping together all six pollutants into one CO<sub>2</sub> equivalent it becomes even more imperative to increase the threshold for PSD to 100,000 tons per year. Without the higher threshold, we believe that there is the potential for many sources to unknowingly trip the major threshold.

V. General Requirements

Since U.S. EPA is not proposing to promulgate National Ambient Air Quality Standards for GHG emissions, “nonattainment areas” and major Nonattainment New Source Review will not apply to sources triggering the major source threshold for GHGs emissions. Therefore, under U.S. EPA’s proposed GHG tailoring rule, any new or modified source proposing to construct and emit GHG emissions at or above the major source threshold will only be subject to the PSD requirements contained in part C of Title I of the Clean Air Act.<sup>5</sup> In general, PSD requirements consist of a BACT analysis, air quality analysis and incorporate public involvement in the permitting process through a public comment period and public hearing. Ohio EPA comments on specific PSD requirements below.

A. Best Available Control Technology (BACT)

BACT is an emissions limitation which is based on an achievable maximum degree of control for an applicable pollutant. It is a case-by-case decision that considers energy, environmental, and economic impacts. BACT can be add-on control equipment or a modification of the production processes or a method. This includes fuel cleaning or treatment and innovative fuel combustion techniques. BACT may be a design, equipment, work practice, or operational standard if imposition of an emissions standard is infeasible.<sup>6</sup>

Our primary concern is, how will Ohio EPA implement BACT for GHG emissions? The proposed GHG tailoring rule lacks any substantive information on how permitting authorities will implement a BACT analysis during the first phase of the PSD permitting program. U.S. EPA predicts it may be another five years until BACT determinations and streamlining approaches for GHGs are incorporated into the PSD permitting program. This is too long for permitting authorities to wait to effectively implement the program as proposed by U.S. EPA. PSD permits could show up on day one of the effective date of this rule and we need a clearer direction to process PSD permits within our 180 day statutory timeframe. We are extremely concerned with U.S. EPA promulgating this rule without a more extensive review on what BACT means for greenhouse gases. Does it mean installing carbon capture and storage or an integrated gasification combined cycle plant (IGCC) plants for utilities if they trigger PSD? How will other source categories be handled if there is no BACT or information available

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<sup>5</sup> PSD Federal Regulations can be found at 40 CFR 51.166 and 40 CFR 52.21

<sup>6</sup> Plain language description of BACT - U.S. EPA NSR website at: <http://www.epa.gov/nsr/psd.html#best>

on how to determine what is cost effective or how much reductions a new technology/process will ultimately achieve?

We encourage U.S. EPA to reach out to States during their development of the final rule so we can be a part of the BACT determination process. We also suggest that U.S. EPA develops a Control Technique Guideline (CTG) type document that defines BACT expectations for the major source types expected to be covered by the Greenhouse Gas Tailoring Rule. It is clear to us that without some type of guidance concerning appropriate BACT levels/controls, the whole permitting process will slow down dramatically as state, local and U.S. EPA permitting staff struggle with determining appropriate BACT. At a minimum the source categories under the 40 CFR Part 98.2(a)(1) of the Mandatory GHG Reporting Requirements should be covered at the outset of this rule or permitting authorities will be gridlocked regardless of increasing the major source threshold to 25,000 tpy of CO<sub>2</sub>e. Based on all the work that must be done for BACT determinations alone, we do not think there is enough time between the proposed rule and March 2010 to adequately incorporate the proper guidance for permitting authorities. We therefore, strongly suggest that PSD requirements should not be triggered until the Light-duty Vehicle GHG Standards Regulation actually controls GHG emissions in 2012.<sup>7</sup>

In addition, we foresee our permitting staff to incur many complications and face multiple uncertainties when assessing a case-by-case BACT analysis for GHGs. We also think that U.S. EPA permitting staff will have a strong desire to review these BACT analyses and will struggle with the uncertainties of appropriate BACT for GHG emissions. It is unreasonable for U.S. EPA to assume that permitting authorities will not need more time to process PSD permits when incorporating a BACT analysis for GHGs. In terms of GHG emissions, there are no known technologies, processes, or equipment that would meet the BACT analysis for most sources. We disagree with U.S. EPA's assumptions that permitting authorities will not hit some bumps in the road the first 1-5 years of implementing a PSD permitting program with a new pollutant. Because of this erroneous assumption we think U.S. EPA is miscalculating the burden of the proposed rule on States relating to permit processing time.

**B. Major Modification for Specific Source Categories**

In terms of a significance level threshold for major modifications, Ohio EPA suggests choosing the largest threshold possible until U.S. EPA can conduct more research to determine the most appropriate threshold for major modifications.

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<sup>7</sup> U.S. EPA proposed a reconsideration of the Johnson Memo where they interpret that a pollutant is "subject to regulation" when a regulation becomes effective. 74 FR at 51535 plus see Ohio EPA comments on reconsideration of the Johnson Memo.

Another detail that must be addressed is the great uncertainty about what triggers PSD for utilities. The current PSD rules exempt increases in emissions due to "routine" maintenance from PSD. However, the question of what is routine was a big part of the litigation with the utilities related to certain pollutants. The same issues are going to be at the forefront with respect to GHGs. The same pattern of litigation should not occur again. U.S. EPA should propose, and then promulgate a list of projects that it considers to be routine or non-routine, so that permitting authorities and the regulated community have a clear understanding of the type of projects that trip PSD. We find this particularly important for our larger utilities that could easily trip PSD. For example, one plant in Ohio would trip PSD if their hours of operation increased just nine to twenty-four hours when operating at full capacity.

VI. Other Implementation Questions the Proposed Rule Does Not Address

Ohio EPA is concerned that the proposed rule does not address all of the implications related to implementing a PSD program. We have additional questions that we ask U.S. EPA to consider when promulgating a final rule.

A. How are agricultural operations handled under this rule? If there is no definite exemption for concentrated animal feeding operations (CAFOs) in this rule, then U.S. EPA must make a decision on whether emissions from CAFOs are fugitive or not. How does the reporting exemption passed by Congress for manure management systems affect this rule? Is it possible that CAFO's over 25,000 tons per year CO<sub>2</sub>e will fall under PSD, but will not be known because these facilities are exempt from reporting?

B. Will an air quality analysis be required for GHGs and what will it look like?

C. What will be the nature of the secondary impact analysis required under PSD for GHGs?

VII. Title V Requirements/Fees

Under Title V, permitting authorities are required to collect fees "sufficient to cover all reasonable (direct and indirect) costs required to develop and administer the permit program requirements. States are given wide discretion in collecting fees from individual sources through establishment of fee schedules in their permit programs, provided the total fees collected from all sources are sufficient to cover the Title V costs.

In the past, a presumptive fee calculation was set in federal regulation as a way for states to assess the minimal amount of fees that should be sufficient for covering the costs of a Title V program. Ohio has utilized U.S. EPA's presumptive base fee of \$25 a ton set in federal regulation for our fee reporting structure relating to non-GHG pollutants. Our 2 year audits show that this fee is sufficient in operating our Title V program to date. We strongly urge U.S. EPA to at least develop a range of recommended fees for a GHG Title V program so that States like Ohio do not have to

develop an independent cost analysis. As currently written, Ohio will not be able to capture additional fee many to support the activities associated with Title V permitting of GHGs.

A back of the envelope calculation yields a reasonable number to help U.S. EPA consider an appropriate presumptive fee. For instance, 100 tons of NOx emissions would be 0.004% of 25,000 tons of CO<sub>2</sub>e and 0.004% of the fee charged for NOx emissions (base year of \$25 or current year at \$43.83) would equal a fee of \$0.10 per ton of CO<sub>2</sub>e in 1989 dollars or \$0.175 per ton of CO<sub>2</sub>e in 2009 dollars. Also note that if U.S. EPA does provide a recommended fee structure for GHGs under Title V, then U.S. EPA will also have to raise the 4000 ton/per year "cap" that is currently in place for criteria pollutants. By normalizing the presumptive fee based on the major source threshold, we feel this approach would be fair and reasonable as a presumptive fee for GHG emissions. Again we strongly suggest U.S. EPA review how a presumptive fee could reasonably be determined and incorporated into the GHG tailoring rule promulgation from the outset of the program. After U.S. EPA's five year review, a new presumptive fee structure could be promulgated based on the multi-year assessment.

#### VIII. Conclusion

In closing we appreciate the opportunity to comment on the PSD/Title V GHG Tailoring Rule. Ohio EPA sees multiple implementation issues relating to processing PSD permits for GHG emissions under the first phase of the program. We understand that GHG regulation is important to protect the public and environment from the impacts of climate change. That is why we are strongly in favor of federal climate change legislation that can better address the global nature of greenhouse gas emissions rather than trying to adjust the Clean Air Act to address this pollutant in a law that was meant for respiratory and local pollutants.