

SUBJECT:

Request adoption of Board Order AM-17-10, proposed rules affecting chapters NR 400, 405 and 407 pertaining to major source thresholds for sources of greenhouse gas emissions.

FOR: APRIL 2011 BOARD MEETING

TO BE PRESENTED BY / TITLE: Andrew Stewart, Chief, Permits & Stationary Source Modeling, Bureau of Air Management

SUMMARY:

On May 13, 2010, US EPA set greenhouse gas (GHG) thresholds and deadlines in rules generally referred to as the GHG Tailoring Rule to define when New Source Review Prevention of Significant Deterioration and Title V operating permits are required for new and existing industrial sources. This action was necessary because without it, the EPA's emission standard for GHG for motor vehicles promulgated on April 1, 2010 would have had the unintended effect of subjecting literally tens of thousands of sources across the country to some of the most complex air permit and emission control regulations.

However, in order for Wisconsin sources to benefit from EPA's policy to limit applicability of air permit and emission control regulations for GHG, revisions to the Wisconsin administrative code, consistent with the federal Tailoring Rule, were necessary by January 2, 2011 when the EPA emission standard for GHG for motor vehicles became effective. This was accomplished on a temporary basis by the Board's adoption of emergency rules in Board Order AM-48-10(e). The rules proposed for adoption here are identical to those emergency rules currently in effect, and are necessary to make them permanent.

The Natural Resources Board authorized holding public hearings at the December 2010 meeting. One hearing was held on January 21, 2011 in Madison. No comment was made at the hearing which was attended by four people. Written comment was received from Alliant Energy requesting that language in a proposed footnote be more definitive and be established as code requirements. No change is being made in response to that comment. Minor changes and corrections have been made in response to Legislative Council Rules Clearinghouse comments.

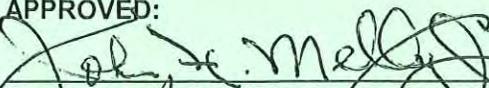
While the Department does not anticipate any controversy with this proposal, it is aware of the significant concern the public has with the continued uncertainty of greenhouse gas regulation under the Clean Air Act.

RECOMMENDATION: That the Board adopt Order AM-17-10.

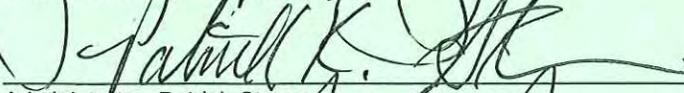
LIST OF ATTACHED MATERIALS:

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|--|---|---|----------|
| No <input type="checkbox"/> | Fiscal Estimate Required | Yes <input checked="" type="checkbox"/> | Attached |
| No <input checked="" type="checkbox"/> | Environmental Assessment or Impact Statement Required | Yes <input type="checkbox"/> | Attached |
| No <input type="checkbox"/> | Background Memo | Yes <input checked="" type="checkbox"/> | Attached |

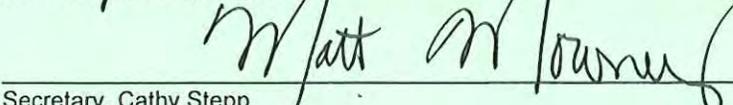
APPROVED:


Bureau Director, John H. Melby Jr

3/24/11
Date


Administrator, Patrick Stevens

3/25/11
Date


Secretary, Cathy Stepp

4/1/11
Date

DATE: March 18, 2011 FILE REF: 4530

TO: Natural Resources Board Members

FROM: Cathy Stepp, Secretary

SUBJECT: Background memo on request for adoption of Order AM-17-10, proposed rules affecting NR 400, 405 and 407, pertaining to major source permit thresholds for sources of greenhouse gas emissions.

Why is this rule being proposed?

On May 13, 2010, the U. S. Environmental Protection Agency, (EPA) set greenhouse gas (GHG) thresholds and deadlines in rules generally referred to as the GHG Tailoring Rule to define when New Source Review Prevention of Significant Deterioration and Title V operating permits are required for new and existing industrial sources. This action was necessary because without it, the EPA's emission standard for GHG for motor vehicles promulgated on April 1, 2010 would have had the unintended effect of subjecting literally tens of thousands of sources across the country to some of the most complex air permit and emission control regulations.

However, in order for Wisconsin sources to benefit from EPA's policy to limit applicability of air permit and emission control regulations for GHG, revisions to the Wisconsin administrative code, consistent with the federal Tailoring Rule, were necessary by January 2, 2011 when the EPA emission standard for GHG for motor vehicles became effective. This was accomplished on a temporary basis by the Board's adoption of emergency rules in Board Order AM-48-10(E). The rules proposed for adoption here are identical to those emergency rules currently in effect, and are necessary to make them permanent.

The series of events leading to this proposal began with an April, 2007 Supreme Court decision. In *Massachusetts v. EPA*, 549 US 497, the Supreme Court found that GHG are air pollutants covered by the Clean Air Act and directed the EPA to make a finding as to whether emissions of these gases from new motor vehicles cause or contribute to air pollution which may be reasonably anticipated to endanger public health or welfare. On December 7, 2009 EPA made their official finding, referred to as the "endangerment finding" establishing the prerequisite to regulating GHG emissions from motor vehicles. Subsequent to this finding, the EPA and US DOT finalized regulations on April 1, 2010 establishing standards for GHG emissions from new light duty motor vehicles, starting with model year 2012. (Additional information on the endangerment finding and motor vehicle regulation can be found at: <http://www.epa.gov/climatechange/endangerment.html> & <http://www.epa.gov/oms/climate/regulations.htm>)

The combined effect of the Supreme Court decision and the finalized motor vehicle rule adds GHG to the list of pollutants that are regulated under the Clean Air Act. This in turn subjects stationary sources (i.e., electric utilities, factories, small business, etc.) to the prevention of significant deterioration (PSD) & Title V permitting programs if their GHG emissions exceed established threshold amounts.

Prior to the series of federal actions described above, the Title V program applied to sources that emit or have the potential to emit 100 tons per year of criteria pollutants, while the PSD program applied to sources in certain categories at a 100 tons per year level and to other sources at a 250 tons per year level. Sources regulated under the PSD program also had thresholds that determined what was a significant increase in emissions for new projects at the source that would trigger a review of control requirements. These significant increase thresholds for pollutants previously regulated under PSD ranged from 1200 pounds per year (lead) to 100 tons per year (carbon monoxide). No significance level for GHG previously existed under the PSD program.

EPA recognized it as unrealistic to apply these thresholds to sources of GHG for two primary reasons. First, carbon dioxide, a prevalent GHG, is emitted in amounts that are orders of magnitude higher than criteria pollutants such as particulate matter and sulfur dioxide. Applying these thresholds to sources of carbon dioxide emissions would bring literally hundreds of thousands, maybe millions, of sources into the PSD program nationwide forcing state agencies to process permits in numbers that far exceed what their current administrative resources could accommodate. Second, the combined emissions from the vast majority of these sources make up a small percentage of the total. Regulating these sources under programs designed to control emissions from sources such as electric utilities, large manufactures and foundries would be highly ineffective and result in little or no environmental benefit.

In order to prevent this from happening, EPA issued on June 3, 2010, a regulation known as the GHG Tailoring Rule. This rule establishes a GHG emission applicability threshold for the PSD and Title V programs at 100,000 tons per year and establishes a threshold for what will be considered a significant increase in GHG emissions at 75,000 tons per year. In addition, this regulation phases in PSD and Title V requirements in two steps.

The primary issue being addressed by this rule is to make Wisconsin consistent with federal regulations in order to prevent the unintended applicability of the Title V and PSD program to small sources of GHG emissions in Wisconsin.

The following table shows the difference between the current thresholds in Wisconsin and the finalized thresholds for GHG under the federal tailoring rule. If Wisconsin does not revise its regulations, sources that emit between 100 and 100,000 tons per year GHG will be subject to legal uncertainty and potentially complex control determinations. In addition, thousands of sources which did not require a Title V permit before will now require one. The administrative burden for each of these programs is extremely high for both the permittee and the DNR since most of these permittees are not used to being regulated under the Clean Air Act.

Comparison of GHG Thresholds		
	Current WI Thresholds	Finalized Thresholds under the Federal Tailoring Rule
PSD Major Source Thresholds	100 and 250 tpy	100,000 tpy
PSD Major Modification Significance level	0 tpy increase	75,000 tpy increase
Title V permit threshold	100 tpy	100,000 tpy

Summary of the Rules

The rule proposes to:

- Define greenhouse gases as the six pollutants listed in the endangerment finding (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride);
- Define how to calculate carbon dioxide equivalency for the six pollutants;
- Define a major source of GHG emissions at 100,000 tons per year on a carbon dioxide equivalent basis;
- Define a significance level for PSD permitting at 75,000 tons per year on a carbon dioxide equivalent basis;
- Establish a two step phased-in implementation schedule;

- Define an inclusion level for emission sources that will be included in a Title V permit; and
- Establish the global warming potential for the greenhouse gases being regulated.

The first five bullets summarize requirements identical to federal regulations. The last two however are not explicitly established in the federal tailoring regulation and warrant further explanation.

Defining an inclusion level for emission sources that will be covered by a Title V permit. It is necessary to propose an inclusion level for smaller GHG emitting units at sources subject to Title V permitting requirements as it is the sum of GHG emissions from these smaller sources that are compared to the major source threshold being proposed. Existing inclusion levels in Wisconsin's Title V rules for other pollutants are generally set at 10 percent of a significance level applicable to the pollutant of concern. With the exception of nitrous oxides, this order proposes to establish the inclusion level for the other greenhouse gases at 10 percent of the PSD major source threshold, or 10,000 tons of CO₂e.

An inclusion level for nitrous oxide already exists in Wisconsin's Title V rules, as it is regulated in Wisconsin as a hazardous air contaminant. The current level is lower than what would be established under this order so there is no need to revise it for greenhouse gas regulation.

Establishing the global warming potential for the greenhouse gases being regulated. It is necessary to propose the global warming potential (GWP) for the greenhouse gases being regulated as it is an essential component of how the carbon dioxide equivalency is calculated which in turn determines whether or not a source is subject to regulation. In the federal tailoring rule, EPA applies the GWP values from the Mandatory Greenhouse Gas Reporting rule by reference to Table A-1 in Subpart A of 40 CFR Part 98, in its definition of carbon dioxide equivalency, omitting the specific GWP values themselves. This order proposes to establish GWP values directly in the rule, using the same EPA values in Table A-1 to 40 CFR Subpart 98. (See Table B in Section 4 of the proposed order)

How does this proposal affect existing policy?

This proposal modifies existing policy by setting the major source threshold for sources of GHG emissions at 100,000 ton per year on a carbon dioxide equivalent basis rather than at 100 and 250 tons per year. It also increases the significance threshold for subjecting modifications to the PSD permitting program from 0 (any increase) to 75,000 tons of GHG per year on a carbon dioxide equivalent basis. In addition it establishes a phased-in implementation schedule.

January 2, 2011 – June 30, 2011

- Only sources currently subject to the PSD permitting program (i.e., those that are newly-constructed or modified in a way that significantly increases emissions of a pollutant other than GHGs) would be subject to permitting requirements for their GHG emissions under PSD.
- For these projects, only GHG increases of 75,000 tpy or more of total GHG, on a carbon dioxide equivalent basis, would need to determine the Best Available Control Technology for their GHG emissions.
- Similarly for the Title V operating permit program, only sources currently subject to the program (i.e., newly constructed or existing major sources for a pollutant other than GHG) would be subject to Title V requirements for GHG.
- During this time, no sources would be subject to Clean Air Act permitting requirements due solely to GHG emissions.

July 1, 2011 and after

- PSD permitting requirements will cover for the first time new construction projects that emit GHG emissions of at least 100,000 tpy even if they do not exceed the permitting thresholds for any other pollutant. Modifications at existing facilities that increase GHG emissions by at least 75,000 tpy will

be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant.

- Title V operating permit requirements will, for the first time, apply to sources based on their GHG emissions even if they would not apply based on emissions of any other pollutant. Facilities that emit at least 100,000 tpy on a carbon dioxide equivalent basis will be subject to Title V permitting requirements.

Hearing Synopsis

The Department held one hearing on the proposed rules on January 21, 2011 in Madison. The hearing was conducted by Margaret Hoefer of DNR Legal Services. Andrew Stewart, Permit and Stationary Source Section Chief provided an overview of the proposed rule. Four people attended the hearing. Two registering as interests may appear and two not indicating a position. No oral or written comments were submitted at the hearing.

Written comment was received from Alliant Energy requesting that language in a proposed footnote be more definitive and be established as enforceable rule requirements. Specifically, Alliant Energy strongly believes that specific provisions be included in the rule that would make this proposal no longer effective in the event that the underlying federal regulation would be vacated or repealed. In addition, Alliant Energy recommends this proposal impose a requirement on the Department to revise its rules within six months of any action by EPA to repeal its rules, or any change to the federal regulation resulting from litigation or congressional action, in order to maintain consistency with the federal regulations.

No change is being made in response to this comment. The Department is aware of the significant concern the public has with the continued uncertainty of greenhouse gas regulation under the Clean Air Act and acknowledges this concern by including the following footnote in the rule:

Note: The department intends to regulate GHG consistent with the 40 CFR 51.166 (June 3, 2010). In the event of litigation or congressional action which impacts the federal regulations, the department will commence rulemaking to remain consistent with the resulting federal regulations.

The Department does not believe it is appropriate to include provisions in the rule that automatically abdicates its authority in response to action at the federal level or imposes required actions on itself. The Department is committed, to act quickly to address this type of situation, likely by using emergency rule procedures to ensure that Wisconsin's air permitting program is consistent with federal requirements.

Minor changes and corrections have been made to the proposal in response to Legislative Council Rules Clearinghouse comments concerning Form, Style and Placement in Administrative Code and Adequacy of References to Related statutes, Rules and Forms. Two comments regarding Clarity, Grammar, Punctuation and Use of Plain Language made by the Clearinghouse were not accepted for the following reasons.

Comment asking whether it would be more appropriate to change definition of GHG from "greenhouse gases" to "greenhouse gas". The plural form of gases is more appropriate as the term GHG or greenhouse gases refers to 70 individual gases in this proposal.

Comment asking whether it is possible to define the term "physical change" in the proposal. No definition is being proposed as the terms literal meaning is applied in practice. A list of physical changes that are excluded from being used in this proposal currently exists in s. NR 405.02(21)(b).

Information on environmental analysis.

Under s. NR 150.03(3), Wis. Adm. Code, an environmental analysis is not needed because this proposal is considered a Type III Action. A Type III Action is one that normally does not have the potential to cause significant environmental effects, normally does not significantly affect energy usage, and normally does not involve unresolved conflicts in the use of available resources.

Final Regulatory Flexibility Analysis.

The proposed rule does not have the potential to have a significant impact on a substantial number of small sources. The purpose of the rule is to limit applicability of New Source Review construction and Title V operation permits and control requirements to major sources of greenhouse gas pollution.

Fiscal Estimate — 2009 Session

- Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number AM-17-10, AM-48-10(E)

Subject

Order AM-17-10 and emergency order AM-48-10(E), proposed rules affecting NR 400, 405 and 407, pertaining to major source permit thresholds for sources of greenhouse gas emissions

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

- Increase Existing Appropriation Increase Existing Revenues
 Decrease Existing Appropriation Decrease Existing Revenues

Increase Costs — May be possible to absorb within agency's budget.

- Yes No

Decrease Costs

Local: No Local Government Costs

1. Increase Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:

- Towns Villages Cities
 Counties Others
 School Districts WTCS Districts

2. Decrease Costs

4. Decrease Revenues

Fund Sources Affected

- GPR FED PRO PRS SEG SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

This proposal limits the applicability of Department permitting consistent with the federal permit program, resulting in fewer permit actions. This translates to an expected cost avoidance for both the Department and the private sector over what costs will be imposed if the proposal is not approved. The following information and assumptions were used in estimating the cost avoidance, which are summarized in the table on the next page. (Note that estimates in this analysis are based on EPA proposed rules published in September, 2009. EPA's final rule establishes applicability thresholds much higher than originally proposed, therefore, the cost avoidance numbers go up significantly from what is presented here.)

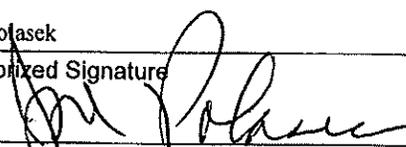
National average dollar per permit costs and national numbers of permits avoided comes from Tables 3-1 and 3-2 in US EPA's *Regulatory Impact Analysis for the Proposed Greenhouse Gas Tailoring Rule, Final Report, September, 2009*.

Number of permits avoided in Wisconsin was determined by taking a percentage of the national estimate of permits avoided.

Number of industrial sources subject to PSD - Currently the Department issues 8-10% of the nation's PSD permits annually due the historically large manufacturing base in Wisconsin. While there will be some correlation between the industrial base and sources of greenhouse gas emissions it is not expected to be as high as what the Department currently sees under the existing PSD program. For the purposes of this Fiscal Estimate 5% is being applied to the national estimate of 3,299 permits avoided.

Number of commercial and residential sources subject to PSD - Based on an assumption that Wisconsin's number of sources is proportional to percentage of the national population, 2% is being applied to the national estimate of 37,197 permits avoided.

Long-Range Fiscal Implications

Prepared By: Joe Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature 	Telephone No. 266-2794	Date (mm/dd/ccyy) 11-02-10

Fiscal Estimate — 2009 Session

**Page 2 Assumptions Narrative
 Continued**

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number AM-17-10, AM-48-10(E)

Assumptions Used in Arriving at Fiscal Estimate – Continued

Number of new industrial sources subject to Title V - Currently the Department issues approximately 3% of the nations Title V permits. Therefore 3% of the national estimate of 195,895 permits avoided is used in this Fiscal Estimate.

Number of new commercial and residential sources subject to Title V - Based on an assumption that Wisconsin's number of sources is proportional to percentage of the national population, 2% is being applied to the national estimate of 5,956,513 permits avoided.

US EPA notes that significant uncertainties exist in their estimates due to the lack of historical record and permitting experience upon which to base resource needs for including greenhouse gas sources in the PSD and Title V permitting programs. The Department does not have Wisconsin specific information that allows the estimates to be better refined for this Fiscal Estimate.

	Source cost to obtain permit	Agency cost to issue permit	Number of permits	Avoided Cost Private Sector	Avoided Cost Department
New Source Permits					
Source subject to PSD Permitting-Industrial	\$84,530	\$46,350	165	\$13,947,450 (annual)	\$7,647,750 (annual)
Source subject to PSD Permitting-Commercial & Residential	\$16,887	\$4,986	744	\$12,563,928 (annual)	\$3,709,584 (annual)
Title V Permits					
New Industrial	\$46,350	\$19,688	5877	\$272,398,950 (one time)	\$115,706,376 (one time)
New Commercial & Residential	\$4,986	\$1,978	119,130	\$593,982,180 (one time)	\$235,639,140 (one time)

Fiscal Estimate Worksheet — 2009 Session
 Detailed Estimate of Annual Fiscal Effect

- Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number AM-17-10, AM-48-10(E)

Subject

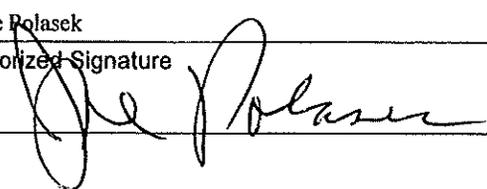
Order AM-17-10 and emergency order AM-48-10(E), proposed rules affecting NR 400, 405, and 407, pertaining to major source permit thresholds for sources of greenhouse gas emissions

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:		Annualized Fiscal Impact on State Funds from:	
		Increased Costs	Decreased Costs
A. State Costs by Category			
State Operations — Salaries and Fringes		\$ 0	\$ - 0
(FTE Position Changes)		(FTE)	(- FTE)
State Operations — Other Costs			-
Local Assistance			-
Aids to Individuals or Organizations			-
Total State Costs by Category		\$	\$ -
B. State Costs by Source of Funds			
GPR		\$ 0	\$ - 0
FED			-
PRO/PRS			-
SEG/SEG-S			-
State Revenues	Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes		\$ 0	\$ - 0
GPR Earned			-
FED			-
PRO/PRS			-
SEG/SEG-S			-
Total State Revenues		\$ 0	\$ - 0

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	\$ 0	\$ 0
Net Change in Revenues	\$ 0	\$ 0

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
	266-2794	11-02-10

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board adopts an order to **amend** 407.02 (4) (b) (intro.), and Table 3 in 407.05 (5) and to **create** NR 400.02 (74m), 400.03 (3) (om), and (4) (go) and (kg), 405.02 (28m), 405.07 (9), 407.02 (8m) and 407.075 relating to major source permitting thresholds for sources of greenhouse gas emissions and affecting small business.

AM-17-10

Analysis Prepared by the Department of Natural Resources

1. Statute interpreted: Sections 227.11(2)(a), 227.14(1m)(b), 285.11(1) and (16), and 285.60, Stats. The State Implementation Plan developed under s. 285.11(6), Stats., is revised.

2. Statutory authority: Sections 227.11 (2) (a), 227.14 (1m) (b), 285.11 (1) and (16), Stats.

3. Explanation of agency authority: Section 227.11(2)(a), Stats., gives state agencies general rulemaking authority. Section 227.14(1m)(b), Stats., allows the Department to use the format of federal regulations in preparing a proposed rule if it determines that all or part of a state environmental regulatory program is to be administered according to standards, requirements or methods which are similar to standards, requirements or methods specified for all or part of a federal environmental program. Section 285.11(1), Stats., gives the Department authority to promulgate rules consistent with ch. 285, Stats. Section 285.11(16), Stats., requires the Department to promulgate rules that specify the amounts of emissions that result in a stationary source being classified as a major source. This section requires the rules to be consistent with but no more restrictive than the federal Clean Air Act.

4. Related statute or rule: None

5. Plain language analysis: On April 1, 2010, US EPA promulgated the first standard for regulating motor vehicle gases contributing to climate change, i.e., greenhouse gases or GHG. Because of the way the Clean Air Act (CAA) is structured, once GHG emissions from motor vehicles are subject to regulation, stationary sources become regulated for these gases. Without further action by EPA, this standard has the unintended affect of subjecting literally tens of thousands of sources across the country to some of the most complex air permit and emission control regulations. In order to mitigate this unintended effect, EPA promulgated on June 3, 2010 (75 FR 31514), an additional "tailoring" rule that limits the number of sources subject to the permit and emission control regulations.

Under current state statutes and administrative code, Wisconsin sources would have become subject to permit and emission control requirements on January 2, 2011. However, Wisconsin sources will not benefit from the tailoring rule limiting applicability under air permit and emission control regulations until revisions can be made to Wisconsin administrative code. The Department therefore promulgated emergency rule AM-48-10(E) to receive the relief intended under the federal tailoring rule. This order proposes to permanently revise the administrative code to make it consistent with the new federal rule.

Specifically, this proposal will define the greenhouse gases subject to regulation, establish greenhouse gas emission thresholds, that if exceeded, will trigger permitting and emission control requirements, and establish global warming potential factors which are used to calculate individual greenhouse gas emissions on an equivalent and comparable basis.

6. Summary of, and comparison with, existing or proposed federal regulation:

U.S. EPA promulgated rules in 40 CFR parts 51 and 70 as revised on June 3, 2010 (75 FR 31514) to relieve overwhelming permitting burdens that would, in the absence of these rule, fall on permitting authorities and sources. They accomplished this by tailoring the applicability criteria that determine which GHG emission sources become subject to the PSD and Title V programs of the CAA. In particular, EPA established with this rulemaking a phase-in approach for PSD and Title V applicability, and established the first two steps of the phase-in for the largest emitters of GHG.

Under these federal rules, the first step, which will begin on January 2, 2011, PSD or Title V requirements will apply to sources' GHG emissions only if the sources are subject to PSD or Title V anyway due to their non-GHG pollutants. Therefore, EPA will not require source owners or operators to evaluate whether they are subject to PSD or Title V requirements solely on account of their GHG emissions. Specifically, for PSD, Step 1 requires that as of January 2, 2011, the applicable requirements of PSD, most notably, the best available control technology (BACT) requirement, will apply to projects that increase net GHG emissions by at least 75,000 tpy carbon dioxide equivalent emissions, but only if the project also significantly increases emissions of at least one non-GHG pollutant. For the Title V program, only owners or operators of existing sources with, or new sources obtaining, Title V permits for non-GHG pollutants will be required to address GHG during this first step.

The second step of the federal rules, beginning on July 1, 2011, will phase in additional large sources of GHG emissions. New sources as well as existing sources not already subject to Title V that emit, or have the potential to emit, at least 100,000 tpy carbon dioxide equivalent emissions will become subject to the PSD and Title V requirements. In addition, sources that emit or have the potential to emit at least 100,000 tpy carbon dioxide equivalent emissions and that undertake a modification that increases net emissions of GHG by at least 75,000 tpy carbon dioxide equivalent emissions will also be subject to PSD requirements.

An important provision of these federal rules is that PSD and Title V permitting is only triggered when both the appropriate traditional mass-based applicability threshold, i.e., 100 tpy or 250 tpy, and the GHG carbon dioxide equivalent emission threshold are exceeded.

U.S. EPA also makes certain commitments to conduct studies related to potential regulatory burdens which could result from lowering the applicability threshold from what is contained in the current rule. Except for these federal commitments, the rules proposed here are consistent with the federal rules.

7. Comparison with similar rules in adjacent states (Illinois, Iowa, Michigan, and Minnesota): The states of Illinois and Minnesota are US EPA delegated states so they do not need to amend their state rules to implement the provision of the federal tailoring rule. Michigan and Iowa are SIP approved states like Wisconsin, so they will need to implement rules similar to what are being proposed here in order to modify their permit program and implement the provisions of the federal rule.

8. Summary of factual data and analytical methodologies used and how any related findings support the regulatory approach chosen: The proposed rule is based on the federal rule changes. Information on the federal rule changes can be obtained from federal registers published on October 27, 2009 (74 FR 55292), October 30, 2009 (74 FR 56260), and June 3, 2010 (75 FR 31514).

9. Analysis and supporting documents used to determine the effect on small business or in preparation of an economic impact report: The Department did not conduct an independent analysis of the effect on small business, but is relying on the analysis performed by the US EPA. This analysis can be found in US EPA's rule docket for Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Proposed Rule [EPA-HQ-OAR-2009-0517; FRL-8966-7], October 27, 2009 (74 FR 55292).

10. Effect on small business: This proposal will prevent unintended impacts to small businesses resulting from promulgation by U.S. EPA of emission standards for GHG, by limiting the number that may become subject to the Title V and PSD permitting programs.

11. Agency contact person: Andrew Stewart, 608-266-6876, andrew.stewart@wisconsin.gov

SECTION 1. NR 400.02 (74m) is created to read:

NR 400.02 (74m) “Greenhouse gases” or “GHG” means an air pollutant that is the aggregate of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

SECTION 2. NR 400.03 (3) (om) and (4) (go) and (kg) are created to read:

NR 400.03 (3) (om) “SF₆” – sulfur hexafluoride

(4) (go) “GHG” – greenhouse gases

(kg) “PFC” – perfluorocarbon

SECTION 3. NR 405.02 (28m) is created to read:

NR 405.02 (28m) “Subject to regulation under the Act” means, for any air contaminant, that the contaminant is subject to either a provision of the Act, or a nationally applicable regulation codified by the administrator in title 40, chapter I, subchapter C of the CFR, that requires actual control of the quantity of air emissions of the contaminant, and that the control requirement has taken effect and is operative to control, limit, or restrict the quantity of emissions of the contaminant released from the regulated activity.

SECTION 4. NR 405.07 (9) is created to read:

NR 405.07 (9) (a) Emissions of greenhouse gases at a stationary source shall only be subject to regulation under the Act as follows:

1. Beginning January 2, 2011, if the stationary source is any of the following:

a. A new major stationary source for a regulated NSR contaminant other than GHG, which will emit or will have the potential to emit 75,000 tpy or more of GHG on a carbon dioxide equivalent basis.

b. An existing major stationary source for a regulated NSR contaminant other than GHG, which will have an emissions increase of a regulated NSR contaminant other than GHG, and an emissions increase of 75,000 tpy or more of GHG on a carbon dioxide equivalent basis.

2. Beginning July 1, 2011, in addition to the provisions in subd. 1., if the stationary source is any of the following:

a. A new stationary source that will emit or have the potential to emit 100,000 tpy or more of GHG on a carbon dioxide equivalent basis.

b. An existing stationary source that emits or has the potential to emit 100,000 tpy or more of GHG on a carbon dioxide equivalent basis, and the source undertakes a physical change or change in the method of operation that will result in an emissions increase of 75,000 tpy or more of GHG on a carbon dioxide equivalent basis.

Note: The department intends to regulate GHG consistent with the 40 CFR 51.166 (June 3, 2010). In the event of litigation or congressional action which impacts the federal regulations, the department will commence rulemaking to remain consistent with the resulting federal regulations.

(b) For purposes of this subsection, emissions of GHG on a carbon dioxide equivalent basis shall be determined by multiplying the mass amount of emissions, in tons per year, for each of the constituent gases in the pollutant GHG by the associated global warming potential for the gas in Table B, and then summing the products obtained.

Table B
Global Warming Potentials (GWP)

	Greenhouse Gas	Chemical Abstract Service Number¹	Chemical Formula	GWP
	(a)	(b)	(c)	(d)
1.	Carbon dioxide	124-38-9	CO ₂	1
2.	Methane	74-82-8	CH ₄	21
3.	Nitrous oxide	10024-97-2	N ₂ O	310
4.	HFC-23	75-46-7	CHF ₃	11,700
5.	HFC-32	75-10-5	CH ₂ F ₂	650
6.	HFC-41	593-53-3	CH ₃ F	150
7.	HFC-125	354-33-6	C ₂ HF ₅	2,800
8.	HFC-134	359-35-3	C ₂ H ₂ F ₄	1,000
9.	HFC-134a	811-97-2	CH ₂ FCF ₃	1,300
10.	HFC-143	430-66-0	C ₂ H ₃ F ₃	300
11.	HFC-143a	420-46-2	C ₂ H ₃ F ₃	3,800
12.	HFC-152	624-72-6	CH ₂ FCH ₂ F	53
13.	HFC-152a	75-37-6	CH ₃ CHF ₂	140
14.	HFC-161	353-36-6	CH ₃ CH ₂ F	12
15.	HFC-227ea	431-89-0	C ₃ HF ₇	2,900
16.	HFC-236cb	677-56-5	CH ₂ FCF ₂ CF ₃	1,340

Table B
Global Warming Potentials (GWP)

	Greenhouse Gas	Chemical Abstract Service Number ¹	Chemical Formula	GWP
	(a)	(b)	(c)	(d)
17.	HFC-236ea	431-63-0	CHF ₂ CHF ₂ CF ₃	1,370
18.	HFC-236fa	690-39-1	C ₃ H ₂ F ₆	6,300
19.	HFC-245ca	679-86-7	C ₃ H ₃ F ₅	560
20.	HFC-245fa	460-73-1	CHF ₂ CH ₂ CF ₃	1,030
21.	HFC-365mfc	406-58-6	CH ₃ CF ₂ CH ₂ CF ₃	794
22.	HFC-43-10mee	138495-42-8	CF ₃ CFHCFHCF ₂ CF ₃	1,300
23.	Sulfur hexafluoride	2551-62-4	SF ₆	23,900
24.	Trifluoromethyl sulphur pentafluoride	373-80-8	SF ₅ CF ₃	17,700
25.	Nitrogen trifluoride	7783-54-2	NF ₃	17,200
26.	PFC-14 (Perfluoromethane)	75-73-0	CF ₄	6,500
27.	PFC-116 (Perfluoroethane)	76-16-4	C ₂ F ₆	9,200
28.	PFC-218 (Perfluoropropane)	76-19-7	C ₃ F ₈	7,000
29.	Perfluorocyclopropane	931-91-9	C-C ₃ F ₆	17,340
30.	PFC-3-1-10 (Perfluorobutane)	355-25-9	C ₄ F ₁₀	7,000
31.	Perfluorocyclobutane	115-25-3	C-C ₄ F ₈	8,700
32.	PFC-4-1-12 (Perfluoropentane)	678-26-2	C ₅ F ₁₂	7,500
33.	PFC-5-1-14 (Perfluorohexane)	355-42-0	C ₆ F ₁₄	7,400
34.	PFC-9-1-18	306-94-5	C ₁₀ F ₁₈	7,500
35.	HCFE-235da2 (Isoflurane)	26675-46-7	CHF ₂ OCHClCF ₃	350
36.	HFE-43-10pccc (H-Galden 1040x)	E1730133	CHF ₂ OCF ₂ OC ₂ F ₄ OCHF ₂	1,870
37.	HFE-125	3822-68-2	CHF ₂ OCF ₃	14,900
38.	HFE-134	1691-17-4	CHF ₂ OCHF ₂	6,320
39.	HFE-143a	421-14-7	CH ₃ OCF ₃	756
40.	HFE-227ea	2356-62-9	CF ₃ CHFOCF ₃	1,540
41.	HFE-236ca12 (HG-10)	78522-47-1	CHF ₂ OCF ₂ OCHF ₂	2,800
42.	HFE-236ea2 (Desflurane)	57041-67-5	CHF ₂ OCHF ₂ CF ₃	989
43.	HFE-236fa	20193-67-3	CF ₃ CH ₂ OCF ₃	487
44.	HFE-245cb2	22410-44-2	CH ₃ OCF ₂ CF ₃	708
45.	HFE-245fa1	84011-15-4	CHF ₂ CH ₂ OCF ₃	286
46.	HFE-245fa2	1885-48-9	CHF ₂ OCH ₂ CF ₃	659
47.	HFE-254cb2	425-88-7	CH ₃ OCF ₂ CHF ₂	359
48.	HFE-263fb2	460-43-5	CF ₃ CH ₂ OCH ₃	11
49.	HFE-329mcc2	67490-36-2	CF ₃ CF ₂ OCF ₂ CHF ₂	919
50.	HFE-338mcf2	156053-88-2	CF ₃ CF ₂ OCH ₂ CF ₃	552
51.	HFE-338pcc13 (HG-01)	188690-78-0	CHF ₂ OCF ₂ CF ₂ OCHF ₂	1,500
52.	HFE-347mcc3	28523-86-6	CH ₃ OCF ₂ CF ₂ CF ₃	575
53.	HFE-347mcf2	E1730135	CF ₃ CF ₂ OCH ₂ CHF ₂	374
54.	HFE-347pcf2	406-78-0	CHF ₂ CF ₂ OCH ₂ CF ₃	580
55.	HFE-356mcc3	382-34-3	CH ₃ OCF ₂ CHF ₂ CF ₃	101
56.	HFE-356pcc3	160620-20-2	CH ₃ OCF ₂ CF ₂ CHF ₂	110
57.	HFE-356pcf2	E1730137	CHF ₂ CH ₂ OCF ₂ CHF ₂	265
58.	HFE-356pcf3	35042-99-0	CHF ₂ OCH ₂ CF ₂ CHF ₂	502
59.	HFE-365mcf3	378-16-5	CF ₃ CF ₂ CH ₂ OCH ₃	11

Table B
Global Warming Potentials (GWP)

	Greenhouse Gas	Chemical Abstract Service Number ¹	Chemical Formula	GWP
	(a)	(b)	(c)	(d)
60.	HFE-374pc2	512-51-6	CH ₃ CH ₂ OCF ₂ CHF ₂	557
61.	HFE-449sl (HFE-7100) Chemical blend	163702-07-6 163702-08-7	C ₄ F ₉ OCH ₃ (CF ₃) ₂ CF ₂ OCH ₃	297
62.	HFE-569sf2 (HFE-7200) Chemical blend	163702-05-4 163702-06-5	C ₄ F ₉ OC ₂ H ₅ (CF ₃) ₂ CF ₂ OC ₂ H ₅	59
63.	Sevoflurane	28523-86-6	CH ₂ FOCH(CF ₃) ₂	345
64.	HFE-356mm1	13171-18-1	(CF ₃) ₂ CHOCH ₃	27
65.	HFE-338mmzl	26103-08-2	CHF ₂ OCH(CF ₃) ₂	380
66.	(Octafluorotetramethylene) hydroxymethyl group	NA	X-(CF ₂) ₄ CH(OH)-X	73
67.	HFE-347mmyl	22052-84-2	CH ₃ OCF(CF ₃) ₂	343
68.	Bis (trifluoromethyl)-methanol	920-66-1	(CF ₃) ₂ CHOH	195
69.	2,2,3,3,3-pentafluoropropanol	422-05-9	CF ₃ CF ₂ CH ₂ OH	42
70.	PFPME	NA	CF ₃ OCF(CF ₃)CF ₂ OCF ₂ OCF ₃	10,300

¹ The Chemical Abstract Service or CAS numbers refer to the unique chemical abstracts service registry number assigned to a specific chemical, isomer or mixture of chemicals or isomers and recorded in the CAS chemical registry system by the Chemical Abstracts Service, PO Box 3012, Columbus OH 42310, phone: 1-614-447-3600.

Note: The GWPs in Table B are based upon the GWPs codified by the EPA at 40 CFR part 98, Subpart A, Table A-1, as of October 22, 2010.

SECTION 5. NR 407.02 (4) (b) (intro.) is amended to read:

NR 407.02 (4) (b) (intro.) A stationary source that directly emits, or has the potential to emit, 100 tpy or more of any air contaminant subject to regulation under the Act other than particulate matter emissions. For particulate matter emissions, a stationary source is a major source if it has emits, or has the potential to emit, 100 tpy of PM₁₀ emissions. The fugitive emissions of a stationary source may not be considered in determining whether it is a major source for the purposes of this definition, unless the source belongs to one of the following categories of stationary sources:

SECTION 6. NR 407.02 (8m) is created to read:

NR 407.02(8m) "Subject to regulation under the Act" has the meaning given in s. NR 405.02 (28m).

SECTION 7. A column heading in Table 3 of NR 407.05 is amended, a new table entry added in alphabetical order, and footnotes added to read:

NR 407.05 (5) Table 3

Air Contaminant Name	Sources of Regulation (See Footnotes Below)	Chemical Abstract Service Number ⁷	Inclusion Level (lbs/yr <u>unless otherwise noted</u>)
Greenhouse gases	10	*	10,000 tpy on a carbon dioxide equivalent basis ⁹

⁹ Emissions of GHG on a carbon dioxide equivalent basis shall be determined according to s. NR 405.07 (9) (b).

¹⁰ Federal greenhouse gases listed under 40 CFR Part 70.

SECTION 8. NR 407.075 is created to read:

NR 407.075 **Greenhouse gases.** Emissions of greenhouse gases at a stationary source shall only be subject to regulation under the Act if, on or after July 1, 2011, the source emits or has the potential to emit 100,000 tpy or more of GHG on a carbon dioxide equivalent basis. For purposes of this section, emissions of GHG on a carbon dioxide equivalent basis shall be determined according to s. NR 405.07 (9) (b).

SECTION 9. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 10. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin
Natural Resources Board on _____.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Cathy Stepp, Secretary

(SEAL)