



DATE: February 14, 2008 FILE REF: 4533

TO: Natural Resources Board Members

FROM: Matthew J. Frank, Secretary

SUBJECT: Background Memo on Adoption of Order AM-34-07, Pertaining to the Revision of chs. NR 405, 407, 408 and 484 Wis. Adm. Code, Incorporation of New and Existing Changes in Federal Definitions

**1. Why is this rule being proposed?**

This rule is being proposed to amend portions of our rules to incorporate federal rule changes per s. 285.11(16), Wis. Stats.

**2. Summary of the Rules**

The Bureau of Air Management proposes to amend the definition of "major stationary source" in s. NR 405.02(22)(a)., such that ethanol production facilities that produce ethanol by natural fermentation, (those included in North American Industry Classification System (NAICS) codes 325193 or 312140), are not included in the Chemical Processing Plant category. NAICS was developed jointly by the U.S., Canada, and Mexico to provide comparability in statistics about business activity across North America. The document North American Industry Classification System United States, 2007 is incorporated by reference in 484.05(17). The other changes are to ss. NR 405.07(4)(a)20., 407.02(4)(b) and 408.02(21)(e), which will state that fugitive emissions from these ethanol production facilities will no longer be included in determining whether a facility is considered a major source. These rule changes are necessary to ensure that state permit requirements are consistent with federal rules published May 1, 2007.

A federal rule clarifying two elements of the major source permitting program was promulgated on January 6, 2004. The first is the addition of a definition of Replacement Unit and the second clarifies a component of the emission calculation used when determining emissions under a plantwide applicability limitation (PAL). US EPA has required permitting agencies to add these elements during the next reopening of the permit program regulations.

**3. How does this proposal affect existing policy?**

Currently fuel ethanol production facilities are considered chemical processing plants. As such, if potential emissions of any criteria pollutant exceeds 100 tons per year, the facility is considered to be a major source under the Prevention of Significant Deterioration (PSD) Program. Moreover, the fugitive emissions from such a facility are included when the major source determinations are made for these plants. After this proposed rule change, the major source applicability threshold will be 250 tons per year and the fugitive emissions will not be included when the major source determinations are made for these plants under the PSD program. The change will not have an impact on the Title V operation permit program's, or the nonattainment area new source review program's major source emission threshold level; however, those programs will also no longer require fugitive emissions to be included as a part of the calculation of emissions.

Citizens near a proposed ethanol plant in Wisconsin have recently expressed concern about a proposed

change to the ambient air quality standards for total suspended particulate matter (TSP). This proposal is a separate action necessary to comply with federal and state law. This rule change would not affect the standard for TSP.

The inclusion of a definition of replacement unit and the plantwide applicability limitation (PAL) emission calculation clarification within chs. NR 405 and 408 will not impact existing policies since the term is currently not defined in those chapters. The addition of a replacement unit definition will clarify the use of the term as it applies to emission unit replacement in determining how emissions are calculated in determining applicability of the chapters to plant modifications. The proposed PAL related change will clarify the calculation of allowable emission rates under a PAL.

#### 4. Hearing synopsis

Public hearings were conducted by the Department on December 18 and 19, 2007 in Wisconsin Rapids and Madison, respectively. Two persons appeared at the Madison hearing, in support of the proposed rule.

The Department received two comments from the Legislative Council Rules Clearinghouse. The comments and the Department's responses are as follows:

Comment:

1. The second sentence of both s. NR 405.02 (25k) (intro.) and s. NR 408.02 (29s) (intro.) is a substantive provision, which should be removed from the definition of "replacement unit" and placed in another appropriate location in the Administrative Code.

Department Response:

The definition of "replacement unit" in the proposed rule matches that promulgated in the federal rule published in the Federal Register, Vol. 68, No. 216 / Friday, November 7, 2003, pp. 63021 - 63029. To be consistent with the federal rule, the Department recommends adoption of the cited language as proposed without change. Under s. 227.14(1m)(b), Stats., notwithstanding the requirement to adhere to the form and style used by the legislative reference bureau, an agency may use the format of federal regulations published in the Code of Federal Regulations in preparing a proposed rule, if the agency determines the state environmental regulatory program is to be administered according to standards which are similar to standards specified for a federal regulatory program.

Comment:

In both s. NR 405.18(6)(c) and s. 408.11(6)(e), the existing grammatical structure, "...on which actual construction started..." should be retained.

Department Response:

The Department assumes that the Legislative Council Rules Clearinghouse intended to reference s. NR 405.18(6)(e) in its comment, and has made the recommended change both there and in s. NR 408.11(6)(e).

**5. 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.

**6. Final regulatory flexibility analysis**

The ethanol rule will not have a significant economic impact on any ethanol plant, including any that may be considered as a small business, because its overall impact will be to lessen the requirements that apply to such plants.

The clarifications of plantwide applicability limitation and replacement unit definitions will not affect small businesses as these are clarifications of existing regulations and are not creating new requirements for major sources.

In summary, the proposed rule is not expected to have a significant economic impact on small businesses.

### Fiscal Estimate — 2007 Session

|   |                               |  |
|---|-------------------------------|--|
| <input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated<br><br><input type="checkbox"/> Corrected <input type="checkbox"/> Supplemental | LRB Number<br><br>Bill Number | Amendment Number if Applicable<br><br>Administrative Rule Number<br>NR 405, 407, 408 |
|---|-------------------------------|--|

**Subject**

Proposed rule package on Air items to make them consistent with federal regulations.

**Fiscal Effect**

State:  No State Fiscal Effect  
 Indeterminate

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

- |  |   |
|--|---|
| <input type="checkbox"/> Increase Existing Appropriation | <input type="checkbox"/> Increase Existing Revenues |
| <input type="checkbox"/> Decrease Existing Appropriation | <input type="checkbox"/> Decrease Existing Revenues |
| <input type="checkbox"/> Create New Appropriation        |   |

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

Yes     No

Decrease Costs

**Local:**  No Local Government Costs

Indeterminate

1.  Increase Costs  
 Permissive     Mandatory
2.  Decrease Costs  
 Permissive     Mandatory

3.  Increase Revenues  
 Permissive     Mandatory
4.  Decrease Revenues  
 Permissive     Mandatory

5. Types of Local Governmental Units Affected:

- Towns     Villages     Cities  
 Counties     Others \_\_\_\_\_  
 School Districts     WTCS Districts

**Fund Sources Affected**

- GPR     FED     PRO     PRS     SEG     SEG-S

**Affected Chapter 20 Appropriations**

**Assumptions Used in Arriving at Fiscal Estimate**

**Rule Summary:**

The Department proposes rules to amend the definition of "major stationary source" in s. NR 405.02(22)(a), such that ethanol production facilities that produce ethanol by natural fermentation are not included in the Chemical Processing Plant category. The other changes are to ss. NR 405.07(4)(a)20., 407.02(4)(b) and 408.02(21)(e), which will state that fugitive emissions from these ethanol production facilities will no longer be included in determining whether a facility is considered a major source.

In addition, a federal rule clarifying two elements of the major source permitting program was promulgated on January 6, 2004. The first is the addition of a definition of Replacement Unit and the second clarifies a component of the emission calculation used when determining emissions under a plantwide applicability limitation (PAL). US EPA has required permitting agencies to add these elements during the next reopening of the permit program regulations.

**Fiscal Summary:**

The proposed changes are being done so that the Department's regulations are updated to reflect the current federal regulations. These are definition changes with no fiscal impact.

**Long-Range Fiscal Implications**

|                      |               |                                 |
|----------------------|---------------|---------------------------------|
| Prepared By:         | Telephone No. | Agency                          |
| Joe Polasek          | 266-2794      | Department of Natural Resources |
| Authorized Signature | Telephone No. | Date (mm/dd/ccyy)               |
| /S/ Joe Polasek      | 266-2794      | 09-21-07                        |

## Fiscal Estimate Worksheet — 2007 Session

Detailed Estimate of Annual Fiscal Effect

- Original       Updated  
 Corrected       Supplemental

|             |  |
|-------------|--|
| LRB Number  | Amendment Number if Applicable                 |
| Bill Number | Administrative Rule Number<br>NR 405, 407, 408 |

**Subject**

Proposed rule package on Air items to make them consistent with federal regulations.

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: |                   |
|---|---|-------------------|
| A. State Costs by Category              | Increased Costs                               | Decreased Costs   |
| State Operations — Salaries and Fringes | \$  | \$ -              |
| (FTE Position Changes)                  | ( FTE )                                       | ( FTE )           |
| State Operations — Other Costs          |   | -                 |
| Local Assistance                        |   | -                 |
| Aids to Individuals or Organizations    |   | -                 |
| <b>Total State Costs by Category</b>    | <b>\$</b>                                     | <b>\$ -</b>       |
| B. State Costs by Source of Funds       | Increased Costs                               | Decreased Costs   |
| GPR                                     | \$  | \$ -              |
| FED                                     |   | -                 |
| PRO/PRS                                 |   | -                 |
| SEG/SEG-S                               |   | -                 |
| State Revenues                          | Increased Revenue                             | Decreased Revenue |
| GPR Taxes                               | \$  | \$ -              |
| GPR Earned                              |   | -                 |
| FED                                     |   | -                 |
| PRO/PRS                                 |   | -                 |
| SEG/SEG-S                               |   | -                 |
| <b>Total State Revenues</b>             | <b>\$</b>                                     | <b>\$ -</b>       |

### Net Annualized Fiscal Impact

|                        | <u>State</u> | <u>Local</u> |
|------------------------|--------------|--------------|
| Net Change in Costs    | \$ _____     | \$ _____     |
| Net Change in Revenues | \$ _____     | \$ _____     |

|                      |               |                                 |
|----------------------|---------------|---------------------------------|
| Prepared By:         | Telephone No. | Agency                          |
| Joe Polasek          | 266-2794      | Department of Natural Resources |
| Authorized Signature | Telephone No. | Date (mm/dd/ccyy)               |
| /S/ Jow Polasek      | 266-2794      | 09-21-07                        |

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

The Wisconsin Natural Resources Board adopts an order to **amend** NR 405.02(12)(b) and (22)(a)1., 405.07(4)(a)20., 405.18(6)(e), 407.02(4)(b)20., 408.02(13)(b) and (21)(e)5. and 408.11(6)(e) and to **create** NR 405.02(25k), 408.02(29s) and 484.05(17) relating to major source definition and affecting small business.

AM-34-07

Summary Prepared by the Department of Natural Resources

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

2. **Statutory authority:** Sections 227.11(2)(a) and 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, consistent with but no more restrictive than the federal clean air act, that specify the amounts of emissions that result in a stationary source being classified as a major source.

4. **Related statute or rule:**

These rules relate directly to the permitting of activities that result in air emissions at major stationary sources. The consent of the Attorney General will be requested for the incorporation by reference of source classification codes in ch. NR 484.

5. **Plain language analysis:**

The proposed rules contained in this order reflect changes made by the United States Environmental Protection Agency (EPA) in their regulations regarding the definition of a major stationary source in the air permit programs. The Department needs to make this change in order to retain EPA approval of Wisconsin's air permit programs.

On May 1, 2007, EPA published federal regulations that specifically excluded ethanol production facilities that produce ethanol by natural fermentation from the Chemical Processing Plant category in the Prevention of Significant Deterioration (PSD) program. In the same federal rule package EPA stated that fugitive emissions from these ethanol production facilities would no longer be included in determining whether a facility is considered a major source in the PSD, Title V operation permit and nonattainment area permit review programs.

Currently fuel ethanol production facilities are considered as a chemical processing plant, which is one of the major stationary source categories under federal regulations. As such, if the potential to emit any of the criteria pollutants exceeds 100 tons per year, the facility is considered to be a major source under the PSD Program. Moreover, the fugitive emissions from such a facility are included when the major source determinations are made for these plants. After this proposed rule change, the major source applicability threshold for ethanol plants will be 250 tons per year and the fugitive emissions will not be included when the major source determinations are made for these plants under the PSD program. The change will not have an impact on the Title V operation permit program's or the nonattainment area new source review program's major source emission level; however, it will no longer require fugitive emissions to be included as a part of the calculation of emissions from ethanol plants.

The inclusion of a definition of "replacement unit" and the plantwide applicability limitation (PAL) emission calculation clarification within chs. NR 405 and 408 will not impact existing policies since the term is currently not defined in those chapters. The addition of a replacement unit definition will clarify the use of the term as it applies to emission unit replacement in determining how emissions are calculated in determining applicability of the chapters to plant modifications. The proposed PAL related change will clarify the calculation of allowable emission rates under a PAL.

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

The proposed rule will make state regulations similar to or the same as the federal regulations and **will** clarify other state requirements.

**7. Comparison with similar rules in adjacent states:**

The proposed rule is based on the federal rule changes. The adjacent states will all be implementing the federal rule changes.

**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 are obtained from Federal Registers published on January 6, 2004 and May 1, 2007.

**9. Analysis and supporting documents used to determine effect on small business or in preparation of economic impact report:**

The Department does not believe the proposed rules will have an impact on small businesses since ethanol plants currently existing in the State that operate near the major source thresholds are not small businesses under 227.11, Stats. Ethanol plants with those levels of emissions will have revenues over 5 million dollars per year. In addition, the rule changes will relax the permit requirements for ethanol plants. Preparation of an economic impact report has not been requested.

**10. Effect on small business:**

The ethanol rule will not have a significant economic impact on any ethanol plant, including any that may be considered as a small business, because its overall impact will be to lessen the requirements that apply to such plants.

The inclusion of a definition of replacement unit and the PAL emission calculation clarification within chs. NR 405 and 408 will not impact small business because the purpose of the inclusion is to clarify existing regulations for major sources.

**11. Agency contact person:**

Paul Yeung, P.O. Box 7921, Madison, WI 53707, Telephone number: (608) 266-0672 e-mail address: [Paul.Yeung@wisconsin.gov](mailto:Paul.Yeung@wisconsin.gov)

The consent of the Attorney General will be requested for the incorporation by reference of the North American Industrial Classification System in ch. NR 484.

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SECTION 1. NR 405.02(12)(b) and (22)(a)1. are amended to read:

NR 405.02(12)(b) An existing emissions unit is any emissions unit that does not meet the requirements in par. (a). Notwithstanding par. (a), a replacement unit, as defined in sub. (25k), is an existing emissions unit.

(22)(a)1. Any of the following stationary sources of air contaminants which emits, or has the potential to emit, 100 tons per year or more of any air contaminant subject to regulation under the ~~aet~~ Act: 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, 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, as described by the 6-digit code of 312140 or 325193 in the North American Industry Classification System United States, 2007, incorporated by reference in s. NR 484.05(17)), 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.

SECTION 2. NR 405.02(25k) is created to read:

NR 405.02(25k) "Replacement unit" means an emissions unit for which all the criteria listed in pars. (a) to (d) are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

(a) The emissions unit is a reconstructed unit within the meaning of s. NR 400.02(130), or the emissions unit completely takes the place of an existing emissions unit.

(b) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.

(c) The replacement does not change any of the basic design parameters of the process line.

(d) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.

SECTION 3. NR 405.07(4)(a)20. is amended to read:

NR 405.07(4)(a)20. Chemical process plants. The chemical processing plants category does not include ethanol production facilities that produce ethanol by natural fermentation, as described by the 6-digit code of 312140 or 325193 in the North American Industry Classification System United States, 2007, incorporated by reference in s. NR 484.05(17).

SECTION 4. NR 405.18(6)(e) is amended to read:

NR 405.18(6)(e) ~~Emissions from units~~ For newly constructed units, which do not include modifications to existing units, on which actual construction began after the 24-month period, in lieu of

adding the baseline actual emissions established under par. (b), the emissions shall be added to the PAL level in an amount equal to the potential to emit of the units.

SECTION 5. NR 407.02(4)(b)20. is amended to read:

NR 407.02(4)(b)20. Chemical process plants. The chemical processing plants category does not include ethanol production facilities that produce ethanol by natural fermentation, as described by the 6-digit code of 312140 or 325193 in the North American Industry Classification System United States, 2007, incorporated by reference in s. NR 484.05(17).

SECTION 6. NR 408.02(13)(b) and (21)(e)5. are amended to read:

NR 408.02(13)(b) An existing emissions unit is any emissions unit that does not meet the requirements in par. (a). Notwithstanding par. (a), a replacement unit, as defined in sub. (29s), is an existing emissions unit.

(21)(e)5. Chemical process plants. The chemical processing plants category does not include ethanol production facilities that produce ethanol by natural fermentation, as described by the 6-digit code of 312140 or 325193 in the North American Industry Classification System United States, 2007, incorporated by reference in s. NR 484.05(17).

SECTION 7. NR 408.02(29s) is created to read:

NR 408.02(29s) "Replacement unit" means an emissions unit for which all the criteria listed in pars. (a) to (d) are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

(a) The emissions unit is a reconstructed unit within the meaning of s. NR 400.02(130), or the emissions unit completely takes the place of an existing emissions unit.

(b) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.

(c) The replacement does not change any of the basic design parameters of the process line.

(d) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.

SECTION 8. NR 408.11(6)(e) is amended to read:

NR 408.11(6)(e) ~~Emissions from units~~ For newly constructed units, which do not include modifications to existing units, on which actual construction began after the 24-month period, in lieu of adding the baseline actual emissions established under par. (b), the emissions shall be added to the PAL level in an amount equal to the potential to emit of the units.

SECTION 9. NR 484.05(17) is created to read:

| <b>Document Reference</b>  | <b>Document Title</b>  | <b>Incorporated by Reference For</b>   |
|--|--|--|
| NR 484.05  |  |  |
| (17) NTIS Order Nos.:<br>printed - PB2007-100002<br>CD-ROM - PB2007-500023 | <u>North American Industry Classification<br/>System United States, 2007</u> | NR 405.02(22)(a)1.<br>NR 405.07(4)(a)20.<br>NR 407.02(4)(b)20.<br>NR 408.02(21)(e)5. |

SECTION 10. 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 11. 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 \_\_\_\_\_  
Matthew J. Frank, Secretary

(SEAL)