

NATURAL RESOURCES BOARD AGENDA ITEM

SUBJECT: Order AM-04-06, authorization for hearing on creation of Chapters NR 433, and Section NR 484.04(11m) pertaining to the Best Available Retrofit Technology (BART) requirements for visibility protection.

FOR: JANUARY 07 BOARD MEETING

TO BE PRESENTED BY: Larry Bruss / Section Chief

SUMMARY: Federal regulations require all states, including Wisconsin, to develop State Implementation Plans to address visibility impairment in mandatory Class I Federal Areas (Class I Areas) by December 2007. One of the provisions of the federal regulations is the application of Best Available Retrofit Technology (BART) requirements to major stationary sources that meet certain criteria relating to amount and type of emissions, installation date and source category. The net effect of the proposed rule would be to examine potential emission control technologies for SO₂, NO_x and particulate matter from approximately 10 power plants and up to 4 pulp and paper mills that meet the criteria in the federal regulations.

BART would be determined for each individual source based on a site-specific engineering analysis considering the following five factors:

- The costs of compliance
- The energy and non-air quality environmental impacts of compliance
- Any pollution control equipment in use at the source
- The remaining useful life of the source
- The degree of visibility improvement that would be achieved as a result of the emission reductions.

EPA has indicated that states may choose to use implementation of the Clean Air Interstate Rule (CAIR) as a substitute for application of BART at power plants. However, the Department proposes to allow CAIR as a BART substitute if a BART-eligible power plant demonstrates that its compliance with CAIR meets its BART requirements for SO₂ and NO_x emissions, since our analysis indicates that application of BART to power plants in Wisconsin provides superior visibility protection. The Department expects this issue to be controversial.

Additionally, the Wisconsin Paper Council has identified several technical issues related to the modeling and identifying of BART affected sources. The Department is continuing to work with the Paper Council and affected sources on those issues.

RECOMMENDATION: The Board authorize the Department to hold public hearings on Order AM-04-06

LIST OF ATTACHED MATERIALS:

- | | | | |
|--|---|---|----------|
| 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, Kevin Kessler

Date

Administrator, Al Shea

Date

Secretary, Scott Hassett

Date

cc: Amy Lemberger - AD/5
Carol Turner - LS/5

K. Kessler - AM/7
R. Eckdale - AM/7 (10)

Farrokh Ghoreishi - AM/7

STAFF REVIEW - DNR BOARD AGENDA ITEM

REMINDER

Have the following questions been answered under the summary section of this form?

- -Why is the rule needed?
- -What are the significant changes?
- -What are the key issues/controversies?
- -What was the last action of the Board?

LIST OF ATTACHED REFERENCE MATERIAL REQUIRED FOR RULE PROPOSALS:

Hearing authorization:

Final adoption:

Background memo (if needed)*

Background Memo (if needed)*

Fiscal Estimate

Response Summary

Environmental Assessment (if needed)

Fiscal Estimate

Rule

Environmental Assessment (if needed)

Rule

* If all the questions listed in the REMINDER section above can be adequately summarized on the Green Sheet (and a second sheet if needed), the Background Memo may be omitted.

Unit	Reviewer	Date	Comments
Environmental Analysis and Review			
Management and Budget			
Legal Services -Program Attorney -Carol Turner			
Other (if applicable)			

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **create** NR 433 and 484.04(11m) relating to the identification of sources subject to the Best Available Retrofit Technology (BART) requirements for visibility protection and the determination of BART for those sources.

AM-04-06

Summary Prepared by the Department of Natural Resources

1. **Statute interpreted:** s. 285.11(6), Stats. The State Implementation Plan developed under s. 285.11(6), Stats., is revised.

2. **Statutory authority:** ss. 227.11(2)(a), 227.14(1m), and 285.11(1) and (6), Stats.

3. **Explanation of agency authority:**

Section 227.11(2)(a), Stats., gives state agencies general rule-making authority. Section 227.14(1m), Wis Adm. Code, allows state agencies to use the format of federal regulations if the proposed rule is to be administered in a manner identical or similar to the federal rule. Section 285.11(1) Stats., gives the Department the authority to promulgate rules to implement, and consistent with, ch. 285, Stats. Section 285.11(6), Stats., authorizes the Department to develop and revise a state implementation plan for the prevention, abatement and control of air pollution.

4. **Related statute or rule:**

The proposed BART-rule would require reductions of SO₂, NO_x, and particulate matter emissions from certain stationary sources such as power plants and industrial sources by 2014 to control regional haze. The affected sources may also be subject to other rules that require emission limitations for one or more of these air pollutants. These rules are the clean air interstate rule (CAIR), the requirements for reasonably available control technology (RACT), and the maximum achievable control technology (MACT) standards.

The U.S. EPA issued CAIR on March 10, 2005 requiring reductions in emissions of SO₂ and NO_x from electric generating power plants in many eastern states including Wisconsin by 2015. The rule imposes caps on emissions from the electricity generating power plants in the affected states and establishes an EPA-administered cap-and-trade program which states may participate in as a means to meet the CAIR requirements. The Department has already proposed a rule to participate in the cap-and-trade program. According to the regional haze regulations, a state that opts to participate in the CAIR cap-and-trade program need not require power plants to install, operate and maintain BART for SO₂ and NO_x. Based on an EPA analysis, controls for power plants subject to CAIR will result in more visibility improvement in natural areas than BART would have provided. Consequently, the Department is proposing to allow electric generating power plants to demonstrate that their emission reductions to comply with CAIR satisfy their BART requirements for SO₂ and NO_x emissions.

The RACT requirements are NO_x emission limitations on major stationary sources which are located in the moderate ozone non-attainment areas, i.e., the 7 counties in southeastern Wisconsin. The Department is preparing a rule to require a RACT level of control on the affected sources to be applied by 2009. It can be expected that a source subject to both RACT and BART would consider a NO_x control measure that is effective enough to comply with both requirements.

In Wisconsin, the sources subject to BART are electric generating power plants or pulp and paper facilities, which are also source categories subject to MACT standards. Since a source of particulate matter emission needs to be well controlled to meet the stringent MACT standards, it is unlikely that the BART determination would result in a more stringent particulate matter emission control than what is required for the MACT standards. Therefore, it is anticipated that the controls installed to meet the MACT standards would likely satisfy the BART level of control.

The consent of the Attorney General and the Revisor of Statutes will be requested for the incorporation by reference of federal regulations and appendices to federal regulations as required under s. 227.21(2)(b), Stats.

5. Plain language analysis:

The U.S. EPA published the final "regional haze regulations and guidelines for Best Available Retrofit Technology (BART) determinations" on July 6, 2005 in the Federal Register (70 FR 39104). The federal regulations require all states, including Wisconsin, to revise their State Implementation Plans (SIPs) to address visibility impairment in Mandatory Class I Federal Areas (Class I Areas), which are specific national parks and wilderness areas across the country. The deadline for the SIP submittal is December 17, 2007.

One of the provisions of the federal regulations is the application of BART to certain existing stationary sources which may reasonably be anticipated to cause or contribute to any impairment of visibility in Class I Area. The state of Wisconsin must submit an implementation plan containing emission limitations representing BART and schedules for compliance for all sources subject to BART.

The Department is proposing this rule to comply with the BART provision of the federal regional haze regulations. The rule applies to BART-eligible sources which are major stationary sources from 26 identified source categories that have the potential to emit 250 tons per year or more of any visibility-impairing air pollutant, and were put in place between August 7, 1962 to August 7, 1977. Those BART-eligible sources that may reasonably be anticipated to cause or contribute to any impairment of visibility in any Class I Area are "subject to BART". A source subject to BART needs to go through a BART determination process, which is an engineering analysis to determine the level of emission control that represents BART and the schedule for compliance with BART. The BART determination must be based on a source-specific analysis of the best systems of continuous emission control technology available taking into account:

- The cost of compliance.
- The energy and non-air quality environmental impacts of compliance.
- Any pollution control equipment in use at the source.
- The remaining useful life of the source.

- The degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

This rule would establish that the Department identifies the sources subject to BART and that the sources conduct the BART analyses. Based on these analyses, the Department would determine the BART level of control and the compliance schedule for each source.

The regional haze regulation allows states to implement alternative programs in lieu of BART, if the alternative program achieves greater reasonable progress than BART does. EPA has determined that the Clean Air Interstate Rule (CAIR) achieves greater progress than BART and may be used by states as a BART substitute. Therefore the Department is proposing to allow BART-eligible sources that are subject to CAIR to demonstrate that their compliance with CAIR meets their BART requirements for SO₂ and NO_x emissions.

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

The Department is proposing this rule to address the federal requirements in the regional haze regulation published in the July 6, 2005 Federal Register (70 FR 39104). The U.S. EPA requires all states, including Wisconsin, to develop programs to assure reasonable progress toward meeting the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal Areas which impairment results from manmade air pollution. The application of Best Available Retrofit Technology (BART) on certain stationary sources is one of the core requirements for the implementation plan for regional haze. The purpose of the proposed rule is to establish the procedures and criteria for identifying sources subject to BART and for determining BART for those sources.

7. Comparison with rules in adjacent states:

All states, including Wisconsin and the adjacent states, are required to submit an implementation plan containing the BART requirements by December 17, 2007. According to the information available to the Department, none of the adjacent states have finalized their implementation plan for BART yet. Like Wisconsin, most states are currently in the rule development stage. However, Minnesota has published some information on the intended approach for the BART rule. Based on the available information, it seems that the core elements of the BART rule in Minnesota are similar to those proposed by the Department. These are:

- Both states intend to identify the sources subject to BART by conducting air quality modeling.
- Both states consider the following visibility impairing pollutants in their BART rule: sulfur dioxide (SO₂), nitrogen oxides (NO_x) and particulate matter (PM). Other visibility impairing pollutants, volatile organic compounds (VOC) and ammonia (NH₃), have minor impacts and are not addressed in the rule.
- Both states intend to use the EPA guidelines for the BART determination for all sources subject to BART.
- The BART rule in both states would require facilities to conduct the BART determination analyses.

One difference between Wisconsin and Minnesota is in the emission trading or averaging possibilities considered in the BART rule. Wisconsin would allow trading or averaging between all boilers at a facility including boilers not

subject to BART. Minnesota allows averaging only among the BART affected sources at a facility.

Illinois and Michigan have not proposed their rules yet, so there is no basis for comparing their programs to Wisconsin's.

Iowa passed a rule for identification of sources subject to BART in March 2005 prior to publication of the final federal regional haze regulation. The Iowa rule does not address the actual BART determination process.

8. Summary of factual data and analytical methodologies:

Since the proposed rule is based on the requirements which are in the federal regional haze rule, the Department is relying on the factual data and analytical methodologies used by U.S. EPA to support the federal rule-making. The corresponding federal regulations were published on July 6, 2005 in the Federal Register (70 FR 39104).

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

Since no small businesses are affected by the proposed rule, no analysis was performed. An economic impact report was not requested.

10. Effect on small business:

There is no known effect on small business due to the proposed BART rule. None of the BART-eligible sources qualify as a small business.

11. Agency contact person:

Farrokh Ghoreishi, 608-264-8868, farrokh.ghoreishi@wisconsin.gov

12. Place where comments are to be submitted and deadline for submission:

Written comments may be submitted at the public hearing or by regular mail, fax or email to:

Farrokh Ghoreishi
Department of Natural Resources
Bureau of Air Management
PO Box 7921
Madison WI 53707
Fax: (608) 267-0560
farrokh.ghoreishi@wisconsin.gov

Written comments may also be submitted to the Department using the Wisconsin Administrative Rules Internet Web site at <http://adminrules.wisconsin.gov>.

Hearing date: To be determined.

Note: The consent of the Attorney General and the Revisor of Statutes will be requested for the incorporation by reference in ch, NR 484 of federal guidelines contained in 40 CFR part 51, Appendix Y.

SECTION 1. Chapter NR 433 is created to read:

CHAPTER NR 433

PROTECTION OF VISIBILITY BY APPLICATION OF BEST AVAILABLE RETROFIT TECHNOLOGY

NR 433.01 Applicability; purpose. (1) **APPLICABILITY.** The provisions of this chapter apply to facilities having one or more BART-eligible sources.

(2) **PURPOSE.** This chapter is adopted under s. 285.11, Stats., to establish the procedures for controlling emissions of air pollutants from BART-eligible sources which may reasonably be anticipated to cause or contribute to any visibility impairment in any mandatory class I federal area.

NR 433.02 Definitions. The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

(1) "BART-eligible source" means any of the stationary sources of air pollutants listed in this subsection, including any reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7, 1977, and which has the potential to emit 250 tons per year or more of any visibility impairing air pollutant. In determining potential to emit, fugitive emissions, to the extent quantifiable, shall be counted. The stationary sources are as follows:

(a) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input.

(b) Coal cleaning plants (thermal dryers).

(c) Kraft pulp mills.

(d) Portland cement plants.

(e) Primary zinc smelters.

(f) Iron and steel mill plants.

(g) Primary aluminum ore reduction plants.

- (h) Primary copper smelters.
 - (i) Municipal incinerators capable of charging more than 250 tons of refuse per day.
 - (j) Hydrofluoric, sulfuric, and nitric acid plants.
 - (k) Petroleum refineries.
 - (l) Lime plants.
 - (m) Phosphate rock processing plants.
 - (n) Coke oven batteries.
 - (o) Sulfur recovery plants.
 - (p) Carbon black plants (furnace process).
 - (q) Primary lead smelters.
 - (r) Fuel conversion plants.
 - (s) Sintering plants.
 - (t) Secondary metal production facilities.
 - (u) Chemical process plants.
 - (v) Fossil fuel boilers of more than 250 million British thermal units per hour heat input.
 - (w) Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels.
 - (x) Taconite ore processing facilities.
 - (y) Glass fiber processing plants.
 - (z) Charcoal production facilities.
- (2) "Best available retrofit technology" or "BART" means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each visibility impairing pollutant which is emitted by a stationary source. The emission limitation shall be established on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control

equipment in use or in existence at the source, the remaining useful life of the source and the degree of improvement in visibility which may reasonably be anticipated to result from the use of the technology.

(3) "Deciview" means a metric for visibility impairment. A deciview is a haze index derived from calculated light extinction that is designed so that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. The haze index in units of deciviews is calculated as follows:

$$\text{Haze index deciview} = 10 \ln_e (b_{\text{ext}}/10 \text{ Mm}^{-1})$$

where:

b_{ext} is the atmospheric light extinction coefficient, expressed in inverse megameters (Mm^{-1})

(4) "In existence" means that the owner or operator obtained all necessary preconstruction approvals or permits required by federal or state air pollution emissions and air quality laws or regulations and either began, or caused to begin, a continuous program of physical on-site construction of the facility, or entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.

(5) "In operation" means engaged in activity related to the primary design function of the source.

(6) "Integral vista" means a view perceived from within a mandatory class I federal area of a specific landmark or panorama located outside the boundary of the mandatory class I federal area.

(7) "Least impaired days" means the average visibility impairment, measured in deciviews, for the 20% of monitored days in a calendar year with the lowest amount of visibility impairment.

(8) "Major stationary source" has the meaning given in s. NR 405.02(22).

(9) "Mandatory class I federal area" means any area identified in 40 CFR part 81, Subpart D.

(10) "Potential to emit" means the maximum capacity of a stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit an air pollutant including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

(11) "Secondary emissions" means emissions which occur as a result of the construction or operation of an existing stationary facility but do not come from the existing stationary facility. Secondary emissions may include, but are not limited to, emissions from ships or trains coming to or from the existing stationary facility.

(12) "Visibility impairing air pollutant" means SO₂, NO_x or particulate matter. Particulate matter smaller than 10 microns in diameter (PM₁₀) may be used as the indicator for particulate matter.

(14) "Visibility impairment" means any humanly perceptible change in visibility, perceived as light extinction, visual range, contrast or coloration, from that which would have existed under natural conditions. Natural conditions include naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration.

NR 433.03 Identification of sources subject to BART. (1) On or before 90 days after the effective date of this rule ...[revisor insert date], the department shall identify all BART-eligible sources that may reasonably be

anticipated to cause or contribute to any visibility impairment in any mandatory class I federal area according to the criteria and procedures in this section and the applicable guidelines in 40 CFR part 51, Appendix Y, incorporated by reference in s. NR 484.04(11m). These sources are identified as sources subject to BART. The department may request in writing information that is required for the identification of sources subject to BART from the owner or operator of a BART-eligible source. The owner or operator of the source shall submit to the department true, accurate and complete information in writing within a time period specified by the department in its request.

(2) The department shall identify sources subject to BART by using an air quality modeling analysis to estimate the individual contribution of each BART-eligible source to visibility impairment in a mandatory class I federal area. The department shall use an air quality model approved by the EPA and conduct the air quality modeling analysis according to procedures that include all of the following:

(a) The department shall apply the air quality model to each BART-eligible source for calendar years 2002, 2003 and 2004.

(b) The individual contribution to visibility impairment shall be calculated on a daily basis, using emission rates reflecting steady-state operating conditions during periods of high capacity utilization of the source. These emission rates shall reflect either the maximum actual emission rates provided by the owner or operator, if available and approved by the department, or the source's potential to emit. The maximum actual emission rates shall be the 24-hour average actual emission rate from the highest emitting day of the meteorological period modeled, unless this rate reflects periods of start-up, shutdown or malfunction. The source's potential to emit shall be averaged over 24 hours or shorter periods of time.

(3) A BART-eligible source shall be considered subject to BART if the air quality modeling analysis conducted under sub.(2) demonstrates that the

source contributes to visibility impairment in any mandatory class I federal area. A source shall be considered to contribute to visibility impairment if for any year modeled the 98th percentile daily average change in visibility impairment from the source is equal to or greater than 0.5 deciviews, as compared to natural visibility conditions. Natural visibility conditions for each mandatory class I federal area shall be the average natural visibility impairment of the 20% best visibility days, or with department approval of a request made by the source owner or operator, the annual average natural visibility impairment for the class I area.

(4) On or before 90 days after the effective date of this rule ...[revisor insert date], the department shall provide written notice to the owner or operator of each facility which the department has determined includes a source that is subject to BART.

NR 433.04 BART analyses. (1) No later than 6 months after the department sends a notification under s. NR 433.03(4) that a source is subject to BART, the owner or operator of the source shall conduct and submit to the department a BART analysis for all emission units which comprise the BART-eligible source. The BART analysis shall contain all information necessary to evaluate all available retrofit control technologies for each unit and to determine the level of control that is BART for the unit, including all of the following:

(a) A list of all emission units which comprise the BART-eligible source within the facility.

(b) All available retrofit emission control technologies for each visibility impairing pollutant emitted by each unit subject to BART at the facility.

(c) An evaluation of each control technology identified in par. (b), considering all of the following factors:

1. The costs of compliance.

2. The energy and non-air quality environmental impacts of compliance.
3. Any existing pollution control technology in use at the source.
4. The remaining useful life of the source.
5. The degree of improvement in visibility which may reasonably be anticipated to result from the use of the technology.

(d) Procedures for an initial performance test and for demonstrating compliance with the emission limits representing BART on a continuous basis including continuous emission monitoring, recordkeeping, and reporting according to the applicable requirements of ch. NR 439 or 440.

(2) The BART analysis shall be conducted pursuant to the applicable guidelines in 40 CFR part 51, Appendix Y, incorporated by reference in s. NR 484.04(11m).

(3) If the owner or operator of a BART-eligible source proposes to use the emissions trading program under s. NR 433.06 for compliance with this section, the owner or operator shall submit to the department the emissions trading plan required under s. NR 433.06(1).

(4) If the BART analysis for a source subject to BART demonstrates that all control technologies are technologically or economically infeasible, the owner or operator of the source shall propose in the BART analysis a design, equipment, work practice, or other operational standard, or combination thereof, to meet the BART requirements. If a design, equipment, work practice or operational standard is proposed, the analysis shall include a calculation of the emission reductions to be achieved by implementation of the design, equipment, work practice or operation, and shall provide the method for demonstrating compliance.

(5) The owner or operator of a BART-eligible source shall certify in writing that any information submitted to the department under this section is true, accurate, and complete, based on information and belief formed after reasonable inquiry.

(6) The department may request in writing additional information necessary to evaluate the BART analysis. The owner or operator of the BART-eligible source shall provide the information in writing within the period of time specified by the department in the request.

(7) If a fossil fuel-fired steam electric plant subject to BART is subject to the emission reduction requirements of the clean air interstate rule (CAIR) under 40 CFR part 97, the owner or operator of the fossil fuel-fired electric plant may demonstrate that the emission reductions which the plant achieves for compliance with CAIR constitute compliance with the BART requirements for SO₂ and NO_x emissions under this chapter.

NR 433.05 Determination of BART requirements. (1) PRELIMINARY

DETERMINATION. (a) The department shall make a preliminary determination of the BART requirements for each emission unit which comprises the sources subject to BART based on the information in the BART analysis required under s. NR 433.04 and other available information. The preliminary BART determination for each facility shall include all of the following elements:

1. A list of all emission units which comprise the source subject to BART.
2. A determination of the BART requirements for each emission unit.
3. Requirements for initial performance tests and for demonstrating compliance with the emission limits representing BART on a continuous basis, including emission monitoring, recordkeeping and reporting.
4. The requirement that the owner or operator of each source subject to BART shall install and operate BART as expeditiously as practicable, but in no event later than December 31, 2013.
5. The requirement that the owner or operator of each source subject to BART shall maintain the control equipment required by the BART determination

and establish procedures to ensure the equipment is properly operated and maintained.

(b) The determination of BART shall be based on the department's review of the analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each unit subject to BART at the facility. The department shall take into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from use of the technology.

(c) The determination of BART for all emission units which comprise the source subject to BART shall be made pursuant to the applicable guidelines in 40 CFR part 51, Appendix Y, incorporated by reference in s. NR 484.04(11m).

(d) If the department determines that it is technologically or economically infeasible for a source to install and operate the available control technologies, it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof to meet the BART requirements. The department shall estimate the emission reduction to be achieved by implementation of the design, equipment, work practice or operation, and shall prescribe the method for demonstrating compliance.

(e) If a fossil fuel-fired steam electric plant subject to the clean air interstate rule (CAIR) requirements under 40 CFR part 97 demonstrates that the reductions achieved through compliance with the CAIR requirements constitute compliance with the SO₂ and NO_x requirements under this chapter, the determination of BART shall be conducted for particulate matter emissions only.

(f) The department shall incorporate the results of its preliminary BART determination in a draft revision to the source's air quality permit.

(2) EXCEPTION. The department may not make a determination of BART for SO₂ or for NO_x if the potential to emit of a BART-eligible source is less than 40 tons per year of the respective pollutant; or for particulate matter, if the potential to emit PM₁₀ of a BART-eligible source is less than 15 tons per year.

(3) PUBLIC NOTICE AND COMMENT. The department shall notify the owner or operator of the source subject to BART and the EPA of its preliminary BART determination and shall publish a notice of its preliminary BART determination and the draft permit conditions for public comment. The department shall provide at least 30 days for submittal of written comments.

(4) FINAL DETERMINATION. Following the close of the public comment period and after consideration of all public comments, the department shall make a final BART determination and issue a revision to the facility's air quality permit which includes the BART requirements.

(5) REVISION. The department may revise the BART requirements in the air quality permit, if the EPA requires a revision of the BART requirements or the department determines that the revision of the existing BART requirements is justified based on safety, health, environmental or excessive cost impacts which the original BART analysis and BART determination failed to take into account. The department shall provide notice and offer an opportunity for public comment on any proposed revision under this section.

NR 433.06 Emissions trading program for boilers. (1) The owner or operator of a facility, having at least one source subject to BART, may propose an emissions trading program if the program achieves an improvement in visibility in the mandatory class I federal areas greater than would be achieved through the installation and operation of BART on each boiler subject to BART. The owner or operator of a boiler subject to BART proposing to use an emissions trading program shall submit an emissions trading plan to the

department prior to the department's BART determination. The plan shall be subject to department approval and meet the following criteria:

(a) The plan shall contain the proposed control strategy and the method of demonstrating compliance.

(b) The plan shall achieve either of the following:

1. For each visibility impairing pollutant subject to the trading plan, an emission reduction at least 10% greater than would be achieved through the installation and operation of BART on each boiler subject to BART.

2. An improvement in visibility in the mandatory class I federal areas greater than or equal to the visibility improvement achieved under subd. 1. The improvement in visibility shall be demonstrated by comparing the 20% best days of visibility and the 20% worst days of visibility in at least the 4 mandatory class I federal areas nearest to the source and for each calendar year 2002, 2003 and 2004. The daily visibility shall be determined using an air quality model approved by the EPA for predicting visibility impacts from single emission sources and conducting the air quality modeling analyses according to the guidelines in 40 CFR part 51, Appendix Y, incorporated by reference in s. NR 484.04(11m).

(c) Trading shall be between all boilers located on the same property.—

(d) Boilers participating in the trading shall achieve the required emission reductions on a continuous basis and shall be subject to continuous emission monitoring, which meets the applicable requirements under ch. NR 439 or 440.

(e) The plan shall specify the monitoring devices and procedures which will be used to provide information sufficient to assess the performance of the proposed emission control measures and to quantify on an hourly average basis the mass flow of each pollutant in pounds per hour and the emission rate of each pollutant in pounds per mmBtu heat input for each boiler participating in the trading. The procedures and methods required for compliance

demonstration and for performance testing shall be according to the applicable requirements of ch. NR 439 or 440.

(f) Excess emission reductions, for the purposes of meeting the BART requirements, shall be emission reductions beyond those required to meet all state and federal requirements and may not include emission reductions used in any other banking or trading program.

(2) If the department approves the emissions trading plan, the department shall propose to revise the source's air quality permit to include the requirements of the emissions trading plan in lieu of the BART requirements for the boilers identified in the emissions trading plan.

(3) After the department incorporates the emissions trading plan in the revised air operation permit, the owner or operator of the BART-eligible source shall comply with the requirements of the emissions trading plan for the boilers identified in the plan.

SECTION 2. NR 484.04(11m) in Table 2 is created to read:

NR 484.04(11m)	40 CFR part 51, Appendix Y	Guidelines for BART Determinations Under the Regional Haze Rule	NR 433.03(1) NR 433.04(2) NR 433.05(1)(c)
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SECTION 3. 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 4. 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 _____
Scott Hassett, Secretary

(SEAL)

DATE: December 27, 2006

TO: Natural Resources Board Member

FROM: Scott Hassett, Secretary

SUBJECT: Background Memo on Public Hearing Authorization for Order AM-04-06, pertaining to creation of Chapter NR 433, and Section NR 484.04(11m) relating to the Best Available Retrofit Technology (BART) requirements for visibility protection

Why is this rule being proposed?

The Department is proposing this rule to address Best Available Retrofit Technology (BART) related SIP revisions which are required by the federal regional haze rule.

The U.S. Environmental Protection Agency (EPA) published the final "regional haze regulations and guidelines for BART determinations" on July 6, 2005 in the Federal Register (70 FR 39104). The federal regulations require all states, including Wisconsin, to revise their State Implementation Plans (SIPs) to address visibility impairment in Mandatory Class I Federal Areas (Class I Areas), which are specific national parks and wilderness areas across the country. The deadline for the SIP submittal is December 17, 2007.

One of the provisions of the federal regulations is the application of BART requirements to certain existing stationary sources which may reasonably be anticipated to cause or contribute to any impairment of visibility in Class I Area. All such sources are "subject to BART". The state of Wisconsin must submit an implementation plan containing emission limitations representing BART and schedules for compliance for all sources subject to BART.

The federal regional haze regulation requires that the BART determination be based on an analysis of the best systems of continuous emission control technology available and associated emission reductions achievable for each source subject to BART. This analysis is to be performed on a source-by-source basis taking into account the criteria provided by the federal regulation. The net effect of the proposed rule would be to examine potential BART emission control technologies for SO₂, NO_x and particulate matter from approximately 10 power plants and about 5 pulp and paper mills in the State.

The rule would require facilities affected by BART to conduct the BART analyses for their sources subject to BART and submit the analyses to the Department for review and approval. The BART determinations would be part of the state implementation plan (SIP) which is subject to EPA approval.

Summary of the rule

The Department is proposing the rule for all BART-eligible sources including power plants. However, a BART-eligible power plant subject to the Clean Air Interstate Rule (CAIR) is not required to install, operate and maintain BART for SO₂ and NO_x if the power plant demonstrates that its compliance with CAIR meets its BART requirements for SO₂ and NO_x emissions.

The main elements of the rule are as follows:

- Identification of sources subject to BART based on their individual impacts on visibility impairment in Class I Areas and notifying the facilities.
- Requirements for the facilities to perform engineering analyses for BART determinations based on the EPA guidelines published in 40 CFR part 51, Appendix Y. If the guidelines do not provide sufficient instruction for a specific case, the facility can consult the Department for further information and clarification. The time available for conducting the BART analyses is 6 months.
- Requirements for the facilities to provide their BART analyses with all supporting documents to the Department for review and BART determinations.
- The BART rule would require that the BART determinations be based on an analysis of the best systems of continuous emission control technology available and associated emission reductions achievable for each source subject to BART. The Department will determine the emission reduction requirements for each source considering the technologies available and the following factors:
 - a) The costs of compliance
 - b) The energy and non-air quality environmental impacts of compliance
 - c) Any pollution control equipment in use at the source
 - d) The remaining useful life of the source
 - e) The degree of visibility improvement that would be achieved as a result of the emission reductions.
- An emissions trading program in lieu of BART for boilers located within a facility is a compliance option. Facilities which wish to use the emissions trading program must submit an emissions trading plan, which would be subject to Department approval. The criteria for the plan approval are listed below:
 - a) The plan must ensure an emission reduction at least 10% higher for the visibility impairing pollutants than would be achieved through the installation and operation of BART or an alternative plan that demonstrates equivalent visibility improvement.
 - b) Trading must be between the boilers located at the same facility.
 - c) Boilers participating in the trading must be equipped with continuous emission monitoring equipment meeting the applicable requirements under ch. NR 439 or 440.
 - d) The plan must specify the monitoring devices and procedures which will be used to determine the performance of the proposed emission control measures and to provide information sufficient to quantify on an hourly average basis the mass flow of each pollutant in pounds per hour and the emission rates of each pollutant in pounds per million Btu (British thermal unit) heat input for each boiler participating in the trading. The procedures and methods required for compliance demonstration and for performance testing shall be according to the applicable requirements under ch. NR 439 or 440.
 - e) For the purpose of meeting the BART requirements, excess emission reductions shall be emission reductions beyond those required to meet all state and federal requirements and may not include emission reductions used in any other trading or banking program.

- Requirements that the Department's determination of BART for a facility be published for public comment, and after consideration of all comments become legally enforceable by including them in the air quality permit for the facility.
- A provision that allows the Department to revise the BART requirements in the air quality permit, if the EPA requires a revision or the Department determines that the revision is justified based on safety, health, environmental, or excessive cost impacts which the original BART analysis failed to take into account.

Background information for the proposed BART rule

The EPA has left some decisions to the states' discretion in its regional haze rule and guidelines for BART determinations. These issues along with the Department's positions are described below.

1. Introduction

The BART provision of the regional haze regulation applies to "BART-eligible" sources. These are major stationary sources from 26 identified source categories, which were not in operation prior to August 7, 1962, and were in existence on August 7, 1977, and have the potential to emit 250 tons per year or more of any visibility impairing air pollutant. Among the BART-eligible sources, only those that may cause or contribute to any impairment of visibility in any Class I Area are "subject to BART". Only a source subject to BART needs to go through a process to determine the level of emission control and the control technology representing BART. The BART determination must be based on a source specific analysis of the best systems of continuous emission control technology available taking into account:

- a) the cost of control
- b) the energy and non-air quality environmental impacts of control
- c) any pollution control equipment in use at the source
- d) the remaining useful life of the source
- e) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology

The EPA has provided guidelines for BART determinations, which can be found in Appendix Y of 40 CFR part 51. The determination of BART for fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the EPA guidelines. The application of the guidelines is not mandatory for the other source categories. However, the Department intends to follow the EPA guidelines for all BART-eligible sources.

2. Visibility Impairing Pollutants

The rule would consider sulfur dioxide (SO₂), nitrogen oxides (NO_x) and particulate matter (PM) as visibility impairing pollutants. Particulate matter smaller than 10 microns (PM₁₀) will be used as an indicator for particulate matter. According to EPA, states should use their best judgment in deciding whether certain types of volatile organic compounds (VOCs) as well as ammonia and ammonia compounds are likely to have an impact on visibility in a Class I Area. There are significant uncertainties in demonstrating the visibility impacts of VOC and ammonia caused by a single source. Therefore, the Department does not intend to include these pollutants in the BART determinations.

3. Sources Subject To BART

The regional haze regulations give states the authority to determine among the BART-eligible sources which sources are subject to BART and which sources can be exempted from BART determination. The EPA-guidelines provide three options for identification of sources subject to BART. The Department chose to consider the individualized contribution of BART-eligible sources to the visibility impairment in Class I Areas and has been conducting source-by-source modeling analyses to determine whether the source significantly contributes to visibility impairment in Class I Areas. The preliminary results show that ten (10) power plants and four (4) industrial sources may be subject to BART. The industrial sources are major pulp and paper facilities. Further modeling results will be used to determine how many of these facilities will be subject to the BART. The following table is a preliminary list of the facilities that potentially have at least one emission unit subject to BART.

Preliminary list of facilities having one or more emission unit subject to BART		Potential emission of BART-eligible sources [ton/year]		
FID	Facility	SO ₂	NO _x	PM / PM10
111003090	Alliant Energy-Columbia Generating Station	113821	41951	12165
122014530	Alliant Energy, Nelson Dewey Gen Station	13,569	9,327	270
241007690	We Energies-Oak Creek Station	72,760	36,796	281
241007800	We Energies-Valley Station	48,616	15,496	2224
405031990	WI Public Service Corp - JP Pulliam Plant	27,717	8,594	489
405032870	Fort James Operating Company	37344	4043	362
436035930	Manitowoc Public Utilities	7168	1134	147
445031180	International Paper Kaukauna Facility	11699	1827	620
460033090	WP & L Alliant Energy - Edgewater Gen Station	62910	6801	578
606034110	Dairyland Power Coop Alma Station	21502	5279	190
663020930	Dairyland Power Coop Genoa Station-EOP	83819	5406	642
735008010	Packing Corporation of America-Tomahawk	5882	638	154
737009020	Wisconsin Public Service Corporation- Weston Plant	24428	17486	2499
737009570	Mosinee Paper Corp	5912	1205	678

The two other options for determining sources subject to BART are:

- a) Consider all BART-eligible sources subject to BART
This option would require the BART determination process for all BART-eligible sources. The Department is not proposing this option, because some of the BART-eligible sources have minor impacts on visibility impairment in Class I Areas.
- b) Consider none of the BART-eligible sources subject to BART
This option required a demonstration that emissions from BART-eligible sources in the state are not reasonably anticipated to cause or contribute to any visibility impairment in a Class I Area. This option is not applicable for Wisconsin, because the Department has already determined that BART-eligible sources in Wisconsin contribute to visibility impairment in the nearby Class I Areas.

4. Emissions Trading

The proposed BART rule includes an emissions trading program. The program is intended to provide more flexibility to facilities to meet the requirements of the BART rule. The program provides facilities with the option to install emission controls on boilers which are not subject to BART in lieu of the sources subject to BART. A facility choosing this option shall submit a plan demonstrating a control strategy that achieves at least 10 percent higher emission reductions than would be achieved through the installation and operation of BART. The plan would be subject to the Department's approval.

5. Alternative to BART Program

The regional haze regulation allows states to opt into an alternative measure in lieu of BART. The State can use other programs, for example a trading program, as an alternative to BART, if the State can show that the alternative program will achieve greater reasonable progress than would be achieved through the installation and operation of BART. Based on this alternative, the Department is proposing the emissions trading program mentioned above.

The regional haze rule gives states the option to use the Clean Air Interstate Rule (CAIR) as a BART substitute for electric generating power plants. This option along with the Department's proposed approach is discussed below.

CAIR as a BART-Substitute for Power Plants

There are ten (10) power plants among the BART-eligible sources in Wisconsin. Those power plants are also subject to the Clean Air Interstate Rule (CAIR), which is another federal rule designed to address the interstate transport of ozone and particulate matter. Although the purpose of CAIR is different from the BART rule, both rules require sulfur dioxide (SO₂) and nitrogen oxides (NO_x) reductions from power plants. CAIR provides a cap-and-trade program and applies to all power plants larger than 25 MW located in the CAIR-region, which includes the 28 states in the eastern part of the United States. BART, on the other hand, needs to be determined on a source-by-source basis and applies to a much smaller number of power plants located nationwide.

The EPA conducted modeling analyses comparing BART with CAIR and determined that CAIR makes "greater reasonable progress" than BART if considering the overall improvement in visibility over all Class I areas. Based on this finding the regional haze regulation allows a state participating in the CAIR cap-and-trade program to treat CAIR as a BART-substitute for power plants. However, if a state believes more progress can be made at affected Class I Areas by utilizing BART, the state need not make the determination that implementation of CAIR satisfies the BART requirement in that State. Therefore, the states have the following two options:

- a) CAIR and BART as Separate Requirements,
- b) CAIR as a BART Substitute.

The Department has conducted an analysis considering the air quality impacts and the cost of control for each of the options. The analysis included all power plants in Wisconsin affected either by BART or by the CAIR cap-and-trade program, as predicted by EPA in its 2004 modeling analysis. The EPA modeling prediction shows that only a limited number of power plants affected by CAIR are likely to be equipped with air pollution control systems as a result of open market trading.

Considering the power plants affected by CAIR along with the predicted emissions controls, the Department conducted a modeling analysis and determined the visibility improvement that implementation of CAIR would yield in the nearby Class I Areas. The Department's analysis shows that considering CAIR and BART as separate requirements results in significant sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emission reductions. The corresponding improvement of visibility in the four nearby Class I Areas is depicted in the table below. The visibility impacts of the sources are expressed as the number of days that the impacts are equal to or greater than a threshold of 0.5 deciviews. As the table shows the implementation of BART and CAIR as separate rules would result in significantly better visibility in all four Class I Areas than substituting CAIR for BART.

Visibility Impacts of Power Plants in Wisconsin Affected by BART and CAIR Cap-and-Trade Program on Four Class I Areas near Wisconsin.				
The data represent the number of days that the visibility impact is 0.5 deciviews or greater in the Class I Areas.				
Class I Area	Boundary Water	Isle Royale	Seney	Voyageurs
Base case (no BART, no CAIR)	175	208	378	92
CAIR as a BART substitute	165	200	370	87
CAIR and presumptive BART separate rules	86	110	254	29

Application of BART along with CAIR provides superior visibility improvement versus implementation of CAIR alone, because the region-wide emissions trading allowed in CAIR is predicted to result in only a small amount of emission reductions in Wisconsin.

One of the requirements in the BART rule is the consideration of the control costs in the BART determinations. Emission controls with excessive cost effectiveness impacts can not pass the BART determination criteria. The Department conducted an economic analysis to estimate the approximate cost of those controls. The cost estimate methodology used was the same as the EPA approach for its CAIR analysis. The results show that the cost effectiveness of the add-on control systems for sulfur dioxide and nitrogen oxides is in the range of \$1,000 to \$3,000 per ton of pollutant removed for most power plants in Wisconsin. Control costs in this range are considered reasonable.

In conclusion, the Department's analysis conflicts with EPA's finding that implementation of CAIR will provide better visibility protection than application of BART at power plants in Wisconsin. On the other hand, the emission controls likely to be used to comply with both CAIR and BART are proven technologies with reasonable costs. Based on these facts an optimal approach is the installation of controls that can satisfy the requirements of both rules. Therefore, the Department proposes to make the determination that CAIR satisfies the BART requirements for SO₂ and NO_x emissions for each power plant subject to BART in Wisconsin if the power plant demonstrates that its compliance with CAIR meets its BART requirements for SO₂ and NO_x emissions.

How this proposal affects existing policy?

The proposed rule does not affect existing policies. However, it should be noted that the rule would impose control requirements on facilities having sources subject to BART. These requirements are enforceable emission limits and compliance dates that need to be included in the facilities' air quality permits.

Has Board dealt with these issues before?

The board has not dealt with BART or visibility impairment issues before. However, the Board has dealt with air pollution control programs for utilities and other major sources. Those rules include CAIR, acid rain, and sulfur dioxide non-attainment control programs.

Who will be impacted by the proposed rule? How?

The proposed rule would probably affect 10 power plants and less than 5 pulp and paper facilities in Wisconsin. The rule would require these facilities to conduct BART analyses to determine the control technology and the level of emission controls representing BART for their sources subject to BART. These analyses include technical feasibility studies and economic evaluations for application of different emission control technologies. The extent of the work would be site specific and cannot be estimated at this time. However, it can be assumed that some of the facilities may need the services of an engineering company to perform the analyses.

The affected facilities would also be required to comply with the BART determination by the end of 2012. Depending on the results of the BART determination the facilities may need to install and operate different air pollution control systems on their sources subject to BART. The BART rule may require controls for three pollutants, sulfur dioxide (SO₂); nitrogen oxides (NO_x); and particulate matter (PM).

The Department expects that the BART requirements for power plants will be a topic of significant controversy, since the regional haze regulation gives the state the option to consider the controls resulting from the cap-and-trade program of CAIR as a BART substitute. The Department has received comments asserting that the power plants should not be required to apply BART because they are subject to the cap-and-trade program of CAIR. The Department analysis conflicts with EPA's general assertion that CAIR achieves greater visibility improvement than BART and consequently the Department is proposing to consider SO₂ and NO_x controls for compliance with CAIR as a BART substitute for those pollutants only if the power plant demonstrates that the controls for CAIR meets the BART requirements as well. Further information on this issue can be found above in the section titled "Summary of the Rule".

Wisconsin Paper Council has identified several technical issues related to the modeling and identifying of BART affected sources. The Department is continuing to work with the Paper Council and affected sources on those issues.

Small business analysis

The facilities affected by the proposed rule are power plants generating electricity and major manufacturers of pulp and paper. These facilities are not considered to be a small business.

Fiscal Estimate — 2005 Session

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Updated	LRB Number	Amendment Number if Applicable
<input type="checkbox"/> Corrected	<input type="checkbox"/> Supplemental	Bill Number	Administrative Rule Number NR 433

Subject

BART rule in ch. NR 433 for SO2, NOx and particulate matter reductions from certain stationary sources.

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
 Create New Appropriation

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
 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

20.370 2 (bg)

Assumptions Used in Arriving at Fiscal Estimate

The Department is proposing this rule to address the requirements of the federal regional haze regulation. The rule would require certain facilities to conduct engineering analyses and install air pollution control systems to reduce their emissions of sulfur dioxide, nitrogen oxides and particulate matter. Compliance is required by the end of 2013.

The fiscal estimate addresses the following cost impacts:

- Impact on the Department
- Impact on city of Manitowoc
- Impact on affected facilities

It should be noted that compliance with the proposed rule would result in emission controls and application of control systems that are not known at this time. The determination of this information is the purpose of the rule. Since the required information is not available the following estimates are based on assumptions and should be considered as an approximate range of the costs. The cost are in today's dollars and represent the upper range of the costs.

(continued..)

Long-Range Fiscal Implications

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

Fiscal Estimate — 2005 Session

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Updated	LRB Number	Amendment Number if Applicable
<input type="checkbox"/> Corrected	<input type="checkbox"/> Supplemental	Bill Number	Administrative Rule Number NR 433

Subject

BART rule in ch. NR 433 for SO₂, NO_x and particulate matter reductions from certain stationary sources.

(Assumptions Used in Arriving at Fiscal Estimate , page 2)

Impact on the Department:

Due to the emission reductions required by the rule, the annual emission fees paid to the Department are affected. An accurate emission reduction estimate is not available at this time, since the rule requires a source specific engineering analysis for determination of emission reductions. In addition, some of the sources affected by this rule would be subject to other rules, such as RACT and CAIR, as well. Those rules, still in development, require emission reductions of one or more of the same air pollutants. These uncertainties make it difficult to estimate the emission reductions resulting from the proposed rule. However, assuming emission reductions typically achievable for the affected sources, the emission reductions and the annual emission fees can be estimated. Assuming that there would be no changes to the fee structure for the air program in the intervening years, the decrease in revenues (based on the reduced tonnage of emissions assumed) would be approximately \$900,000 per year in 2014 and after.

Impact on the City of Manitowoc

This rule would impact one local government facility operated by Manitowoc Public Utility (MPU). MPU operates three coal fired boilers at its power plant. One of them, Unit 7, is affected by the BART rule. Depending on the results of the site-specific BART determination, the source may need to be retrofitted with NO_x and SO₂ control systems. Since the rule requires an extensive evaluation of control technologies, costs and other considerations, the fiscal effect of the rule cannot be accurately estimated at this time. Assuming installation of equipment to attain the maximum level of NO_x and SO₂ control, the maximum capital and operational costs should not exceed \$1.5 million per year starting no later than 2014.

Impact on affected facilities

The proposed BART rule would require emission controls on certain power plants and industrial sources. The vast majority of emissions are from the affected power plants. Depending on the results of the site specific BART determinations, the sources may need to be retrofitted with NO_x and SO₂ control systems. Since the rule requires an extensive evaluation of control technologies, costs and other considerations, the specific fiscal effect of the rule cannot be accurately estimated at this time. However, assuming installation of equipment to attain the maximum level of NO_x and SO₂ control, the maximum capital and operational costs should not exceed \$270 million per year starting no later than 2014. Additionally, the Department expects the electric utilities to use emission reductions from application of BART controls to comply with CAIR, significantly reducing the cost of CAIR compliance.

It should be noted that the cost impacts on the industrial sources can vary in wide ranges. However, the Department expects the annual costs of air pollution controls for industrial sources to be relatively low compared to the costs for power plants.

Fiscal Estimate Worksheet — 2005 Session
 Detailed Estimate of Annual Fiscal Effect

Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number AM-04-06

Subject

BART rule in ch. NR 433 for SO₂, NO_x and particulate matter reductions from certain stationary sources.

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		\$	\$ -
(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		\$	\$ -
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		\$	\$ -
GPR Earned			-
FED			-
PRO/PRS			- 900,000
SEG/SEG-S			
Total State Revenues		\$	\$ -900,000

Net Annualized Fiscal Impact

	<u>State</u>	<u>Local</u>
Net Change in Costs	\$ 0	\$ 0
Net Change in Revenues	\$ -900,000	\$ 0

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