

Chapter NR 405

PREVENTION OF SIGNIFICANT DETERIORATION

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NR 405.01 Applicability; purpose. (1) **APPLICABILITY.** The provisions of this chapter apply to all new major stationary sources and all major modifications to major sources located in areas designated as attainment or unclassified.

(2) **PURPOSE.** The purpose of this chapter is to establish, pursuant to s. 144.391, Stats., the requirements and procedures for reviewing and issuing air pollution control permits to all new major stationary sources and all major modifications to major sources located in areas designated as attainment or unclassified.

Note: Throughout the proposed rule, changes have been made which result in the provisions of this PSD rule differing from 40 CFR s. 51.166, the federal regulation on which it is based. In this rule, the term "air contaminant" is substituted for the term "pollutant" in the federal regulation and the term "administrator of U.S. EPA" for "administrator", "federal clean air act" for "act" and "department" for "the State", "the Governor" and "reviewing authority". The federal definition for "building, structure, facility or installation" is applied to the phrase "facility, building, structure, equipment, vehicle or action" — a similar term which appears in Wisconsin's statutory provisions on air pollution. In addition, cross references in the federal regulation have been changed in the rule to comparable provisions in Wisconsin's rule (e.g., "40 CFR Parts 60 and 61" has been changed to "chs. NR 440 and 445 to 449"). Eliminated from the rule are provisions of the federal regulations which do not apply to the state's PSD program (i.e., provisions governing U.S. EPA approval of plan revisions).

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.02 Definitions. In addition to the definitions in this section, the definitions contained in ch. NR 400 apply to the terms used in this chapter.

(1) "Actual emissions" means the actual rate of emissions of an air contaminant from an emissions unit, as determined in accordance with pars. (a) through (c).

(a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the air contaminant during a 2-year period which precedes the particular date and which is representative of normal source operation. The department may allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

(b) The department may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.

(c) For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.

(2) "Allowable emissions" means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:

(a) The applicable standards as set forth in chs. NR 440 and 445 to 449.

(b) The applicable emissions limitations, as set forth in chs. NR 400 to 499; or

(c) The emissions rate specified as a federally enforceable permit condition.

(3) "Baseline area" means any intrastate area (and every part thereof) designated as attainment or unclassifiable under section 107 (d) (1) (D) or (E) of the federal clean air act in which the major source or major modification establishing the baseline date would construct or would have an air quality impact equal to or greater than 1 ug/m^3 (annual average) of the air contaminant for which the baseline date is established. Area redesignations under section 107 (d) (1) (D) or (E) of the federal clean air act cannot intersect or be smaller than the area of impact of any major stationary source or major modification which:

(a) Establishes a baseline date; or

(b) Is subject to this chapter.

(4) (a) "Baseline concentration" means that ambient concentration level which exists in the baseline area at the time of the applicable baseline date. A baseline concentration is determined for each air contaminant for which a baseline date is established and shall include:

1. The actual emissions representative of sources in existence on the applicable baseline date, except as provided in par. (b).

2. The allowable emissions of major stationary sources which commenced construction before January 6, 1975, but were not in operation by the applicable baseline date.

(b) The following will not be included in the baseline concentration and will affect the applicable maximum allowable increases:

1. Actual emissions from any major stationary source on which construction commenced after January 6, 1975; and

2. Actual emissions increases and decreases at any stationary source occurring after the baseline date.

(5) (a) "Baseline date" means the earliest date after August 7, 1977, that a major stationary source or major modification subject to this chapter submits a complete application.

(b) The baseline date is established for each air contaminant for which increments or other equivalent measures have been established if:

1. The area in which the proposed major source or major modification would construct is designated as attainment or unclassifiable under section 107 (d) (1) (D) or (E) of the clean air act for the air contaminant on the date of its complete application under this chapter; and

2. In the case of a major stationary source, the air contaminant would be emitted in significant amounts or, in the case of a major modification, there would be a significant net emissions increase of the air contaminant.

(6) "Begin actual construction" means, in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework and construction of permanent storage structures. With respect to a change in method of operation, this term refers to those on-site activities, other than preparatory activities, which mark the initiation of the change.

(7) "Best available control technology" means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each air contaminant subject to regulation under the federal clean air act which would be emitted from any proposed major stationary source or major modification which the department, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant. In no event may application of best available control technology result in emissions of any air contaminant which would exceed the emissions allowed by any applicable standard under chs. NR 440 and 445 to 449. If the department determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.

(8) "Building, structure, facility, or installation" and "facility, building, structure, equipment, vehicle or action" means all of the air contaminant emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Air contaminant emitting activities shall be considered as part of the same industrial grouping if they belong to the same "major group" (i.e., which have the same 2-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 033-005-00176-0, respectively).

(9) "Commence" as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:

(a) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or

(b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

(10) "Complete" means, in reference to an application for a permit, that the application contains all the information necessary for processing the application. Designating an application complete for purposes of permit processing does not preclude the department from requesting or accepting any additional information.

(11) "Construction" means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.

(12) "Emissions unit" means any part of a stationary source which emits or would have the potential to emit any air contaminant subject to regulation under the federal clean air act.

(13) "Federal land manager" means, with respect to any lands in the United States, the secretary of the department with authority over such lands.

(14) "Federally enforceable" means all limitations and conditions which are enforceable by the administrator of U.S. EPA, including those requirements set forth in chs. NR 440 and 445 to 449, and any permit requirements established pursuant to this chapter.

(15) "Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(16) "High terrain" means any area having an elevation 900 feet or more above the base of the stack of a source.

(17) "Indian governing body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.

(18) "Indian reservation" means any federally recognized reservation established by treaty, agreement, executive order, or act of congress.

(19) "Innovative control technology" means any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.

(20) "Low terrain" means any area other than high terrain.

(21) "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any air contaminant subject to regulation under the federal clean air act.

(a) Any net emissions increase that is significant for volatile organic compounds shall be considered significant for ozone.

(b) A physical change or change in the method of operation may not include:

1. Routine maintenance, repair, and replacement;
2. Use of an alternative fuel or raw material by reason of any order under sections 2 (a) and (b) of the energy supply and environmental coordination act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the federal power act;
3. Use of an alternative fuel by reason of an order or rule under section 125 of the federal clean air act;
4. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
5. Use of an alternative fuel or raw material by a stationary source which:
 - a. The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to this chapter or ch. NR 406; or
 - b. The source is approved to use under any permit issued under this chapter or ch. NR 406;
6. An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to this chapter.
7. Any change in ownership at a stationary source.

(22) (a) "Major stationary source" means:

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 federal clean air 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, 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;

2. Notwithstanding the stationary source size specified in subd. 1, any stationary source which emits, or has the potential to emit, 250 tons per year or more of any air contaminant subject to regulation under the federal clean air act; or

3. Any physical change that would occur at a stationary source not otherwise qualifying under this subsection as a major stationary source, if the change would constitute a major stationary source by itself.

(b) A major source that is major for volatile organic compounds shall be considered major for ozone.

(c) Volatile organic compounds exclude the compounds listed under s. NR 400.02 (100) unless the compound is subject to an emission limitation under ch. NR 440 or chs. NR 446 to 449.

(d) Mobile source emissions indirectly caused by a source which attracts mobile source activity may not be considered in determining whether the source is a major stationary source for the purposes of this chapter.

(23) "Necessary preconstruction approvals or permits" means those permits or approvals required under chs. NR 400 to 499.

(24) (a) "Net emissions increase" means the amount by which the sum of the following exceeds zero:

1. Any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source; and

2. Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.

(b) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:

1. The date 5 years before construction on the particular change commences and

2. The date that the increase from the particular change occurs.

(c) An increase or decrease in actual emissions is creditable only if the reviewing authority has not relied on it in issuing a permit for the source under this chapter, which permit is in effect when the increase in actual emissions from the particular change occurs.

(d) An increase or decrease in actual emissions of sulfur dioxide, nitrogen dioxide or particulate matter which occurs before the applicable baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.

(e) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.

(f) A decrease in actual emissions is creditable only to the extent that:

1. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions.

2. It is federally enforceable at and after the time that actual construction on the particular change begins; and

3. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

(g) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

(25) "Potential to emit" means the maximum capacity of a stationary source to emit an air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit an air contaminant, 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.

(26) "Secondary emissions" means emissions which occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purposes of this chapter, secondary emissions must be specific, well defined, quantifiable, and impact the same general areas as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

(27) (a) "Significant" means, in reference to a net emissions increase or the potential of a source to emit any of the air contaminants in Table A, a rate of emissions that would equal or exceed any of the rates in Table A.

Table A
Pollutant and Emissions Rate

1. Carbon monoxide: 100 tons per year (tpy)
2. Nitrogen oxides: 40 tpy
3. Sulfur dioxide: 40 tpy
4. Particulate matter: 25 tpy
5. PM₁₀: 15 tpy
6. Ozone: 40 tpy of volatile organic compounds
7. Lead: 0.6 tpy
8. Asbestos: 0.007 tpy
9. Beryllium: 0.0004 tpy

10. Mercury: 0.1 tpy
11. Vinyl chloride: 1 tpy
12. Fluorides: 3 tpy
13. Sulfuric acid mist: 7 tpy
14. Hydrogen sulfide (H₂S): 10 tpy
15. Total reduced sulfur (including H₂S): 10 tpy
16. Reduced sulfur compounds (including H₂S): 10 tpy

(b) Volatile organic compounds exclude the compounds listed under s. NR 400.02 (100) unless the compound is subject to an emission limitation under ch. NR 440 or chs. NR 446 to 449.

(c) "Significant" means, in reference to a net emissions increase or the potential of a source to emit an air contaminant subject to regulation under the federal clean air act that par. (a) does not list, any emissions rate.

(d) Notwithstanding par. (a), "significant" means any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact on such area equal to or greater than 1 ug/m³ (24-hour average).

(28) "Stationary source" means any building, structure, facility or installation which emits or may emit any air contaminant subject to regulation under the federal clean air act.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; am. (27) (a) Register, December, 1988, No. 396, eff. 1-1-89; am. (intro.), (22) (c), (24) (d), (27) (b) and (28), cr. (22) (d), Register, May, 1992, No. 437, eff. 6-1-92.

NR 405.03 Restrictions on area classifications. (1) All of the following areas which were in existence on August 7, 1977, shall be Class I areas and may not be redesignated by the department:

- (a) International parks,
- (b) National wilderness areas which exceed 5,000 acres in size,
- (c) National memorial parks which exceed 5,000 acres in size, and
- (d) National parks which exceed 6,000 acres in size.

(2) Any other area, unless otherwise specified in the legislation creating such an area, is initially designated Class II, but may be redesignated as provided in this chapter.

- (3) The following areas may be redesignated only as Class I or II:

(a) An area which as of August 7, 1977, exceeded 10,000 acres in size and was a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore; and

(b) A national park or national wilderness area established after August 7, 1977, which exceeds 10,000 acres in size.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

Register, May, 1992, No. 437

NR 405.04 Exclusions from increment consumption. (1) The following concentrations shall be excluded in determining compliance with a maximum allowable increase:

(a) Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under sections 2 (a) and (b) of the energy supply and environmental coordination act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order.

(b) Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the federal power act over the emissions from such sources before the effective date of such plan;

(c) Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;

(d) The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration; and

(e) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, nitrogen dioxide or particulate matter from stationary sources which are affected by plan revisions approved by the administrator of U.S. EPA as meeting the criteria specified in sub. (4).

(2) No sources which have concentrations which are excluded from increment consumption under sub. (1) (a) and (b) may any longer have those concentrations excluded 5 years after the effective date of the order to which sub. (1) (a) refers or the plan to which sub. (1) (b) refers, whichever is applicable. If both such order and plan are applicable, no such exclusion may apply more than 5 years after the later of such effective dates.

(3) No exclusion under this section may occur later than 9 months after August 7, 1980, unless the department submits a state implementation plan revision meeting the requirements of 40 CFR s. 51.24 to the administrator of U.S. EPA.

(4) For purposes of excluding concentrations pursuant to sub. (1) (e), the administrator of U.S. EPA may approve a plan revision that:

(a) Specifies the time over which the temporary emissions increase of sulfur dioxide, nitrogen dioxide or particulate matter would occur. Such time is not to exceed 2 years in duration unless a longer time is approved by the administrator of U.S. EPA;

(b) Specifies that the time period for excluding certain contributions in accordance with par. (a) is not renewable;

(c) Allows no emissions increase from a stationary source which would:

1. Impact a Class I area or an area where an applicable increment is known to be violated; or

2. Cause or contribute to the violation of a national ambient air quality standard;

(d) Requires limitations to be in effect at the end of the time period specified in accordance with par. (a) which would insure that the emissions levels from stationary sources affected by the plan revision would not exceed those levels occurring from such sources before the plan revision was approved.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; am. (1) (e), (2), (3) and (4) (a), Register, May, 1992, No. 437, eff. 6-1-92.

NR 405.05 Redesignation. (1) All areas of the state (except as otherwise provided under s. NR 405.03), shall be designated either Class I, Class II, or Class III. Any designation other than Class II shall be subject to the redesignation procedures of this section. Any redesignation must be approved by the administrator of U.S. EPA as a revision to the applicable state implementation plan.

(2) The department may redesignate areas of the state Class I or Class II if the following criteria are met:

(a) At least one public hearing has been held in the area affected;

(b) Other states, Indian governing bodies, and federal land managers whose lands may be affected by the proposed redesignation are notified at least 30 days prior to the public hearing;

(c) A discussion of the reasons for the proposed redesignation, including a satisfactory description and analysis of the health, environmental, economic, social and energy effects of the proposed redesignation, is prepared and made available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contained appropriate notification of the availability of such discussion;

(d) Prior to the issuance of notice respecting the redesignation of an area that includes any federal lands, the department shall provide written notice to the appropriate federal land manager and the federal land manager shall be allowed 30 days to confer with the department respecting the redesignation and to submit written comments and recommendations. In redesignating any area with respect to which any federal land manager submits written comments and recommendations, the department shall publish a list of any inconsistency between such redesignation and such comments and recommendations (together with the reasons for making such redesignation against the recommendation of the federal land manager); and

(e) The department proposes the redesignation after consultation with the elected leadership of local and other substate general purpose governments in the area covered by the proposed redesignation.

(3) Any area other than an area to which s. NR 405.03 refers may be redesignated as Class III if:

(a) The redesignation meets the requirements of provisions established in accordance with sub. (2);

(b) The redesignation, except any established by an Indian governing body, is specifically approved by the department;

(c) The redesignation may not cause, or contribute to, a concentration of any air contaminant which exceeds any maximum allowable increase

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permitted under the classification of any other area or any national ambient air quality standard; and

(d) Any permit application for any major stationary source or major modification subject to provisions established in accordance with s. NR 405.10, which can receive a permit only if the area in question is redesignated as Class III, and any material submitted as part of that application is available, insofar as is practicable, for public inspection prior to any public hearing on redesignation of any area as Class III.

(4) Lands within the exterior boundaries of Indian reservations may be redesignated only by the appropriate Indian governing body. The appropriate Indian governing body may submit to the administrator of U.S. EPA a proposal to redesignate areas Class I, Class II, or Class III provided that:

(a) The Indian governing body has followed procedures equivalent to those required of the department under subs. (2), (3) (c), and (3) (d); and

(b) Such redesignation is proposed after consultation with the state in which the Indian reservation is located and which border the Indian reservation.

(5) If the administrator of U.S. EPA disapproves a proposed redesignation, the classification of the area shall be that which was in effect prior to the disapproval of the redesignation.

(6) If the administrator of U.S. EPA disapproves any proposed area redesignation, the department or Indian governing body, as appropriate, may resubmit the proposal after correcting the deficiencies noted by the administrator of U.S. EPA.

Note: The time period provided for a federal land manager's comments in the federal regulations (not in excess of 60 days) is specified as 30 days in s. NR 405.05 (2) (d).

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.06 Stack heights. The degree of emission limitation required for control of any air contaminant under chs. NR 400 to 499 may not be affected in any manner by:

(1) So much of a stack height, not in existence before December 31, 1970, as exceeds good engineering practice, or

(2) Any other dispersion technique not implemented before then.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.07 Review of major stationary sources and major modifications — source applicability and exemptions. (1) No major stationary source or major modification may begin actual construction unless the requirements of ss. NR 405.08 to 405.16 have been met.

(2) The requirements of ss. NR 405.08 to 405.16 shall apply to any major stationary source and any major modification with respect to each air contaminant that it would emit, except as this chapter would otherwise allow.

(3) The requirements of ss. NR 405.08 to 405.11 apply only to any major stationary source or major modification that would be constructed in an area which is designated as attainment or unclassifiable under section 107 (a) (1) (D) or (E) of the federal clean air act; and

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(4) A major source or major modification is exempt from the requirements of ss. NR 405.08 to 405.16 if:

(b) The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and such source does not belong to any of the following categories:

1. Coal cleaning plants (with thermal dryers);
2. Kraft pulp mills;
3. Portland cement plants;
4. Primary zinc smelters;
5. Iron and steel mills;
6. Primary aluminum ore reduction plants;
7. Primary copper smelters;
8. Municipal incinerators capable of charging more than 250 tons of refuse per day;
9. Hydrofluoric, sulfuric, or nitric acid plants;
10. Petroleum refineries;
11. Lime plants;
12. Phosphate rock processing plants;
13. Coke oven batteries;
14. Sulfur recovery plants;
15. Carbon black plants (furnace processes);
16. Primary lead smelters;
17. Fuel conversion plants;
18. Sintering plants;
19. Secondary metal production plants;
20. Chemical process plants;
21. Fossil fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
22. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
23. Taconite ore processing plants;
24. Glass fiber processing plants;
25. Charcoal production plants;
26. Fossil fuel fired steam electric plants of more than 250 million British thermal units per hour heat input;

27. Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the federal clean air act; or

(c) The major source or major modification is a portable stationary source which has previously received a permit under requirements set forth in ss. NR 405.08 to 405.16 if:

1. The source proposes to relocate and emissions of the source at the new location would be temporary; and

2. The emissions from the source would not exceed its allowable emissions; and

3. The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and

4. Reasonable notice is given to the department prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the department not less than 30 days in advance of the proposed relocation unless a different time duration is previously approved by the department.

(5) The requirements of ss. NR 405.08 to 405.16 do not apply to a major stationary source or major modification with respect to a particular air contaminant if the owner or operator demonstrates that, as to that air contaminant, the source or modification is located in an area designed as nonattainment under section 107 of the federal clean air act.

(6) The requirements contained in ss. NR 405.09, 405.11, and 405.13 do not apply to a proposed major stationary source or major modification with respect to a particular air contaminant, if the allowable emissions of that air contaminant from a new source, or the net emissions increase of that air contaminant from a modification would be temporary and impact no Class I area and no area where an applicable increment is known to be violated.

(7) The requirements contained in ss. NR 405.09, 405.11, and 405.13 as they relate to any maximum allowable increase for a Class II area do not apply to a modification of a major stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each air contaminant from the modification after the application of best available control technology would be less than 50 tons per year.

(8) The department may exempt a proposed major stationary source or major modification from the requirements of s. NR 405.11 with respect to monitoring for a particular air contaminant if:

(a) The emissions increase of the air contaminant from a new stationary source or the net emissions increase of the air contaminant from a major modification would cause, in any area, air quality impacts less than the following amounts:

1. Carbon monoxide — 575 ug/m³, 8-hour average;
2. Nitrogen dioxide — 14 ug/m³, annual average;
3. Total suspended particulates — 10 ug/m³, 24-hour average;
4. Sulfur dioxide — 13 ug/m³, 24-hour average;
5. Ozone;

Note: No de minimus air quality level is provided for ozone. However, any source with a net increase of 100 tons per year or more of volatile organic compounds subject to regulation under this chapter would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.

6. Lead — 0.1 ug/m³, 24-hour average;
7. Mercury — 0.25 ug/m³, 24-hour average;
8. Beryllium — 0.0005 ug/m³, 24-hour average;
9. Fluorides — 0.25 ug/m³, 24-hour average;
10. Vinyl chloride — 15 ug/m³, 24-hour average;
11. Total reduced sulfur — 10 ug/m³, 1-hour average;
12. Hydrogen sulfide — 0.04 ug/m³, 1-hour average;
13. Reduced sulfur compounds — 10 ug/m³, 1-hour average; or

(b) The concentrations of the air contaminant in the area that the source or modification would affect are less than the concentrations listed in par. (a); or

(c) The air contaminant is not listed in par. (a).

Note: The advance notice requirement for relocation of a portable source in the federal regulations (not less than 10 days advance notice) has been changed to not less than 30 days in s. NR 405.07 (4) (c).

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; corrections in (6) to (8) made under s. 13.93 (2m) (b) 7, Stats., Register, April, 1988, No. 388.

NR 405.08 Control technology review. (1) A major stationary source or major modification shall meet each applicable emissions limitation under chs. NR 400 to 499.

(2) A new major stationary source shall apply best available control technology for each air contaminant that it would have the potential to emit in significant amounts.

(3) A major modification shall apply best available control technology for each air contaminant for which it would be a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.

(4) For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.09 Source impact analysis. The owner or operator of the proposed major source or major modification shall demonstrate that allowable emission increases from the proposed major source or major modification, in conjunction with all other applicable emissions increases or Register, May, 1992, No. 437

reduction (including secondary emissions) would not cause or contribute to air pollution in violation of:

(1) Any national ambient air quality standard in any air quality control region; or

(2) Any applicable maximum allowable increase over the baseline concentration in any area.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.10 Air quality models. (1) All estimates of ambient concentrations required under this section shall be based on the applicable air quality models, data bases, and other requirements specified in the Guidelines on Air Quality Models (Revised) (OAQPS 1.2-080, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986). This publication is incorporated by reference in ch. NR 484.

(2) Where an air quality impact model specified in the Guideline on Air Quality Models is inappropriate, the model may be modified or another model substituted.

(3) A substitution or modification of a model shall be subject to the public comment procedures set forth in s. NR 405.16.

(4) Written approval of the administrator of U.S. EPA shall be obtained for any modification or substitution.

(5) Methods like those outlined in the Workbook for the Comparison of Air Quality Models (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, May 1978) should be used to determine the comparability of air quality models. This publication is incorporated by reference in ch. NR 484.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; am. (1) and (5), Register, April, 1988, No. 388, eff. 5-1-88; am. (1) and (5), r. (6), Register, May, 1992, No. 437, eff. 6-1-92.

NR 405.11 Air quality analysis. (1) **PREAPPLICATION ANALYSIS.** (a) Any application for a permit under this chapter shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following air contaminants:

1. For the major source, each air contaminant that it would have the potential to emit in a significant amount;

2. For the major modification, each air contaminant for which it would result in a significant net emissions increase.

(b) For any air contaminant for which no national ambient air quality standard exists, the analysis shall contain such air quality monitoring data as the department determines is necessary to assess ambient air quality for that air contaminant in any area that the emissions of that air contaminant would affect.

(c) For any air contaminant for which a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that air contaminant would cause or contribute to a violation of the standard or any maximum allowable increase.

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(d) In general, the continuous air monitoring data that is required shall be gathered over a period of one year and shall represent the year preceding receipt of the application, except that, if the department determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than 4 months), the data that is required shall be gathered over at least that shorter period.

(e) The owner or operator of a proposed major stationary source or major modification of volatile organic compounds who satisfies all conditions of 40 CFR part 51, Appendix S, section IV, incorporated by reference in ch. NR 484, may provide post-approval monitoring data for ozone in lieu of providing pre-construction data as required under this section.

(2) **POST-CONSTRUCTION MONITORING.** The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the department determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in any area.

(3) **OPERATION OF MONITORING STATIONS.** The owner or operator of a major stationary source or a major modification shall meet the requirements of Appendix B to 40 CFR part 58, incorporated by reference in ch. NR 484, during the operation of monitoring stations for purposes of satisfying this section.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; am. (1) (b), (c), (e) and (3), r. (4), Register, May, 1992, No. 437, eff. 6-1-92.

NR 405.12 Source information. (1) The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or make any determination required under procedures established in accordance with this chapter.

(2) Such information shall include:

(a) A description of the nature, location, design capacity, and typical operating schedule of the major source or major modification, including specifications and drawings showing its design and plant layout;

(b) A detailed schedule for construction of the major source or major modification;

(c) A detailed description as to what system of continuous emission reduction is planned by the major source or major modification, emission estimates, and any other information as necessary to determine that best available control technology as applicable would be applied;

(3) The owner or operator shall also provide information on:

(a) The air quality impact of the major source or major modification, including meteorological and topographical data necessary to estimate such impact; and

(b) The air quality impacts and the nature and extent of any or all general, commercial, residential, industrial and other growth which has

occurred since August 7, 1977, in the area the major source or major modification would affect.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.13 Additional impact analyses. (1) The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the major source or major modification and general commercial, residential, industrial and other growth associated with the major source or major modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

(2) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general, commercial, residential, industrial and other growth associated with the major source or major modification.

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.

NR 405.14 Sources impacting federal Class I areas — additional requirements. (1) **NOTICE TO EPA.** The department shall transmit to the administrator of U.S. EPA a copy of each permit application relating to a major stationary source or major modification and provide notice to the administrator of U.S. EPA of every action related to the consideration of such permit.

(2) **FEDERAL LAND MANAGER.** The federal land manager and the federal official charged with direct responsibility for management of Class I lands have an affirmative responsibility to protect the air quality related values (including visibility) of any such lands and to consider, in consultation with the administrator of U.S. EPA, whether a proposed source or modification would have an adverse impact on such values.

(3) **DENIAL — IMPACT ON AIR QUALITY RELATED VALUES.** The department shall allow the federal land manager of any Class I lands the opportunity to present to the department after the department's preliminary determination required under procedures developed in accordance with s. NR 405.16, a demonstration that the emissions from the proposed major source or major modification would have an adverse impact on the air quality related values (including visibility) of any federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the department concurs with such demonstration, the permit may not be issued.

(4) **CLASS I VARIANCES.** The owner or operator of a proposed major source or major modification may demonstrate to the federal land manager that the emissions from such source would have no adverse impact on the air quality-related values of such lands (including visibility), notwithstanding that the change in air quality resulting from emissions from such source or modification would cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the federal land manager concurs with such demonstration and so certifies to the department, the department may, provided that applicable requirements of this chapter are otherwise met, issue the permit with such emission limitations as may be necessary to assure that emissions of sulfur dioxide, nitrogen dioxide and particulate matter would

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not exceed the following maximum allowable increases over baseline concentration for such air contaminants.

	Maximum allowable increase (micrograms per cubic meter)
Particulate matter	
Annual geometric mean	19
24-hour maximum	37
Sulfur dioxide	
Annual arithmetic mean	20
24-hour maximum	91
3-hour maximum	325
Nitrogen dioxide	
Annual arithmetic mean	25

(5) **SULFUR DIOXIDE VARIANCE BY DEPARTMENT WITH FEDERAL LAND MANAGER'S CONCURRENCE.** (a) The owner or operator of a proposed major source or major modification which cannot be approved under procedures developed pursuant to sub. (4) may demonstrate to the department that the source or modification cannot be constructed by reason of any maximum allowable increase for sulfur dioxide for periods of 24-hours or less applicable to any Class I area and, in the case of federal mandatory Class I areas, that a variance under this subsection would not adversely affect the air quality related values of the area (including visibility).

(b) The department, after consideration of the federal land manager's recommendation (if any) and subject to his or her concurrence, may grant, after notice and an opportunity for a public hearing, a variance from such maximum allowable increase; and

(c) If such variance is granted, the department shall issue a permit to such major source or major modification in accordance with provisions developed pursuant to sub. (7), provided that the applicable requirements of this chapter are otherwise met.

(6) **VARIANCE BY THE DEPARTMENT WITH THE CONCURRENCE OF THE PRESIDENT OF THE UNITED STATES.** (a) The recommendations of the department and the federal land manager shall be transferred to the president in any case where the department recommends a variance in which the federal land manager does not concur;

(b) The president may approve the department's recommendation if he or she finds that such variance is in the national interest; and

(c) If such a variance is approved, the department shall issue a permit in accordance with provisions developed pursuant to the requirements of sub. (7), provided that the applicable requirements of this chapter are otherwise met.

(7) **EMISSION LIMITATIONS FOR PRESIDENTIAL DENIAL OR DEPARTMENTAL VARIANCE.** In the case of a permit issued under procedures developed pursuant to sub. (5) or (6), the major source or major modification shall comply with emission limitations as may be necessary to assure that emissions of sulfur dioxide from the major source or major modification would not (during any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which would exceed the following maximum allowable increases over the baseline concentration and to assure that such emissions would not cause

or contribute to concentrations which exceed the otherwise applicable maximum allowable increase for periods of exposure of 24 hours or less for more than 18 days, not necessarily consecutive, during any annual period.

MAXIMUM ALLOWABLE SO₂ INCREASE
(Micrograms per cubic meter)

Period of exposure	Terrain areas	
	Low	High
24-hour maximum	36	62
8-hour maximum	180	221

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87; am. (4) and (7), Register, May, 1992, No. 437, eff. 6-1-92.

NR 405.15 Public participation. (1) The department shall notify all applicants within 20 days as to the completeness of the application or any deficiency in the application or information submitted. In the event of such a deficiency, the date of receipt of the application shall be the date on which the department received all required information.

(2) Within 120 days after receipt of a complete application, the department shall:

(a) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

(b) Make available in at least one location in each region in which the proposed source would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination.

(c) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for comment at a public hearing, as well as written public comment.

(d) Send a copy of the notice of public comment to the applicant, the administrator of U.S. EPA and to officials and agencies having cognizance over the location where the proposed concentration would occur as follows; any other state or local air pollution control agencies; the chief executives of the city and county where the source would be located; any comprehensive regional land use planning agency; and any state, federal land manager, or Indian governing body whose lands may be affected by emissions from the major source or major modification.

(e) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations.

(f) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing in making a final decision on the approvability of the application. The department shall make all comments available for public inspection in the same locations where the department made available pre-

construction information relating to the proposed major source or major modification.

(g) Make a final determination whether construction should be approved, approved with conditions, or disapproved.

(h) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the department made available pre-construction information and public comments relating to the source.

Note: The requirement that a preliminary determination and notice of an application be accomplished within one year of receipt of a permit application in the federal regulations has been changed to within 120 days of receipt of application in s. NR 405.15 (2).

History: Cr. Register, January, 1987, No. 378, eff. 2-1-87.

NR 405.16 Source obligation. (1) Approval to construct does not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the chs. NR 400 to 499 and any other requirements under local, state or federal law.

(2) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit an air contaminant such as a restriction on hours of operation, then the requirements of ss. NR 405.08 to 405.17 shall apply to the source or modification as though construction had not yet commenced on the major source or major modification.

History: Cr. Register, January, 1987, No. 378, eff. 2-1-87.

NR 405.17 Innovative control technology. (1) An owner or operator of a proposed major stationary source or major modification may request the department to approve a system of innovative control technology.

(2) The department may, with the consent of the governor(s) of other affected state(s), determine that the major source or major modification may employ a system of innovative control technology if:

(a) The proposed control system would not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function;

(b) The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under s. NR 405.08 (2) no later than 3 years from the time of start-up or 6 years from the date of permit issuance;

(c) The source or modification would meet the requirements equivalent to those in ss. NR 405.08 and 405.09 based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified in par. (b);

(d) The major source or major modification would not before the date specified:

1. Cause or contribute to any violation of an applicable national ambient air quality standard;

2. Impact any Class I area; or

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3. Impact any area where an applicable increment is known to be violated; and

(e) All other applicable requirements including those for public participation have been met.

(3) The department shall withdraw any approval to employ a system of innovative control technology made under this section, if:

(a) The proposed system fails by the specified date in sub. (2) (b) to achieve the required continuous emissions reduction rate; or

(b) The proposed system fails before the specified date in sub. (2) (b) so as to contribute to an unreasonable risk to public health, welfare, or safety; or

(c) The department decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare or safety.

(4) If a major source or major modification fails to meet the required level of continuous emissions reduction within the specified time period, or if the approval is withdrawn in accordance with sub. (3), the department may allow the source of modification up to an additional 3 years to meet the requirement for the application of best available control technology through use of a demonstrated system of control.

Note: The deadline for achieving the required continuous emissions reduction through innovative control technology in the federal regulations (not later than 4 years from the time of startup or 7 years from permit issuance) has been changed to no later than 3 years from time of startup or 6 years from the date of permit issuance in s. NR 405.17 (2) (b).

History: Cr. Register, January, 1987, No. 373, eff. 2-1-87.