



CR 84-176

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny  
Secretary

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RECEIVED

STATE OF WISCONSIN )  
DEPARTMENT OF NATURAL RESOURCES ) ss

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TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. A-44-84 was duly approved and adopted by this Department on February 27, 1985. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at General Executive Facility #2 in the City of Madison, this 17 day of May, 1985.

*Bruce B. Braun*  
Bruce B. Braun, Deputy Secretary

(SEAL)

4214I

8-1-85



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

.....  
IN THE MATTER of repealing ss. NR 154.20(1) and (3)(e), .  
155.01(5), (6) and (7), 155.02, 155.04, and 155.07; .  
renumbering Ch. NR 155 (title) and ss. NR 155.01 (Intro.), .  
155.035, 155.05 and 155.06; renumbering and amending .  
s. NR 154.20 (title), (2) and (3)(a) to (d), 155.01(1), .  
(2), (3), and (4), 155.03, and 155.06(3); and creating .  
s. NR 404.01(4) and (6) to (13), 404.02, 404.04, 493.01 and .  
493.03(5) of the Wisconsin Administrative Code pertaining .  
to air pollution episode levels and episode emission .  
control action programs, ambient air quality standards and .  
air quality monitoring .  
.....

A-44-84

Analysis Prepared by Department of Natural Resources

These proposed rules renumber and revise two components of the state's existing air program rules. The rules revise the methodologies used for measuring all criteria air pollutants (total suspended particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide and lead). The methodologies in these proposed rules reflect methodologies set out in the current federal regulations for ambient air monitoring and quality assurance for criteria air pollutants. No changes are being made in the ambient air quality standards in these rules. In addition, the rules revise the episode levels specified in the existing rules to reflect current federal episode levels. Episode levels are designed to provide a staged barometer of ambient air conditions which pose an imminent threat to public health. The rules set out a series of prescribed measures to ensure that ambient air conditions don't deteriorate further but which should result in improved air quality.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.31, 144.38, 144.424 and 227.014(2)(a), Stats., the State of Wisconsin Natural Resources Board hereby repeals, renumbers and amends, and creates rules interpreting ss. 144.31(1)(f) and (g) and 144.424, Stats., and revising the State Implementation Plan (SIP) developed under s. 144.31(1)(f), Stats., as follows:

SECTION 1. NR 154.20 (title) is renumbered chapter NR 493 (title) and amended to read:

NR 493  
AIR POLLUTION EPISODE LEVELS  
AND  
EPISODE EMISSION CONTROL ACTION  
PROGRAMS.

SECTION 2. NR 154.20(1) is repealed.

SECTION 3. NR 154.20(2) and (3)(a) to (d) are renumbered NR 493.02 and 493.03(1) to (4), respectively and, as renumbered, are amended to read:

NR 493.02 GENERAL PROGRAM. (1) Any person responsible for the operation of a direct source which emits 0.25 tons or more per day ~~or more~~ of any air contaminant for which air standards have been adopted shall prepare emission control action programs, consistent with good industrial practice and safe operating procedures, for reducing the emission of the air contaminants into the outdoor atmosphere during periods of an AIR POLLUTION ALERT, AIR POLLUTION WARNING, or AIR POLLUTION EMERGENCY declared under s. NR 493.01(2). Emission control action programs shall be designed to reduce or eliminate emissions of air contaminants into the outdoor atmosphere in accordance with the objectives requirements set forth in Tables ~~1-5~~ 2 to 6 of ~~section-NR-154-20(3)(e)~~ s. NR 493.03(5).

(2) Emission control action programs ~~as required under section-NR-154-20(2)(e)~~ sub. (1) shall be in writing and show the source of air contamination, the approximate amount of reduction of contaminants, the approximate time required to effect the program, a brief

NR 493.03 EPISODE ORDERS. The following are orders which may be appropriate for use by the secretary under ~~section-144.40-Wis.~~ s.144.424, Stats., upon his declaration under s. 493.01(2) that an air pollution emergency episode exists for any air ~~contaminants~~ contaminant for which an air standards-have standard has been adopted or for any combination of air contaminants:

(1) AIR POLLUTION ALERT. (a) Any air contaminant or combination of air contaminants.

Any person responsible for the operation of a source of air contamination as set forth in ~~section-NR-154.20 (2)(a)~~ s. NR 493.02(1) shall take all AIR POLLUTION ALERT actions as required for such source of air contamination, and shall particularly put into effect the emission control action ~~programs~~ program for an AIR POLLUTION ALERT declared under s. NR 493.01(2).

(b) Particulate matter. 1. ~~There-shall-be-no~~ No person may open burning-by burn any ~~persons~~ of tree wastes, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

3. Persons operating fuel-burning equipment which requires intermittent boiler lancing or soot blowing shall perform such operations, to the maximum extent possible, between the hours of 12:00 noon and 4:00 p.m.

(c) Nitrogen oxides. 1. ~~There-shall-be-no~~ No person may open burning-by burn any ~~persons-of~~ of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

(2) AIR POLLUTION WARNING. (a) Any air contaminant or combination of air contaminants.

Any person responsible for the operation of a source of air contamination as set forth in ~~section-NR-154.20 (2)(a)~~ s. NR 493.02(1) shall take all AIR POLLUTION WARNING actions as required for such source of air contamination, and shall particularly put into effect the emission control action ~~programs~~ program for an AIR POLLUTION WARNING declared under s. NR 493.01(2).

description of the manner in which the reduction will be achieved during each stage of an air pollution episode declared under s. NR 493.01(2), and such other information as the department ~~shall deem~~ deems pertinent.

(3) ~~Buring-a-condition-of-AIR-POLLUTION-ALERT,-AIR-POLLUTION-WARNING,-or-AIR-POLLUTION-EMERGENCY,~~ The emission control action programs as required by ~~section-NR-454-(2) (a)~~ sub. (1) shall be made available at all times on the premises of the operation to any person authorized to enforce the provisions of the department's episode procedure. A brief written description of the overall emission control action program, and the details of the program which affect specific functions of the overall operation, shall be posted at the locations where the functions are carried out.

(4) ~~Emission~~ The emission control action programs as required by ~~section NR-454:20(2) (a)~~ sub. (1) shall be submitted to the department upon request within 60 days of the receipt of ~~such~~ the request; ~~such~~ the emission control action programs shall be subject to review and approval by the department. If, in the opinion of the department, ~~such~~ an emission control action ~~programs~~ program does not effectively carry out the ~~objectives-as~~ requirements set forth in Tables ~~4-5~~ 2-6 of ~~section-NR-454:20-(3)(e)~~ s. NR 493.05, the department may disapprove ~~and~~ the emission control action ~~programs~~ program, state its reason for disapproval, and order the preparation of an amended emission control action ~~programs~~ program within the time period specified in the order. If the person responsible fails within the time period specified in the order to submit an amended emission control action program which, in the opinion of the department, meets the ~~said-objectives~~ requirements of this chapter, the department may revise the emission control action program ~~to-cause-it-to-meet-these-objectives~~. Such The revised program will thereafter be the emission control action program which the person responsible ~~must~~ shall put into effect upon declaration of an air pollution episode by the secretary.

NR 493.03 EPISODE ORDERS. The following are orders which may be appropriate for use by the secretary under ~~section-144-40-Wis-~~ s.144.424, Stats., upon his declaration under NR s. 493.01(2) that an air pollution emergency episode exists for any air contaminants contaminant for which an air standards-have standard has been adopted or for any combination of air contaminants:

(1) AIR POLLUTION ALERT. (a) Any air contaminant or combination of air contaminants.

Any person responsible for the operation of a source of air contamination as set forth in ~~section-NR-154-20 (2)(a)~~ s. NR 493.02(1) shall take all AIR POLLUTION ALERT actions as required for such source of air contamination, and shall particularly put into effect the emission control action ~~programs~~ program for an AIR POLLUTION ALERT declared under s. NR 493.01(2).

(b) Particulate matter. 1. ~~There-shall-be-no~~ No person may open burning-by burn any persons of tree wastes, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

3. Persons operating fuel-burning equipment which requires intermittent boiler lancing or soot blowing shall perform such operations, to the maximum extent possible, between the hours of 12:00 noon and 4:00 p.m.

(c) Nitrogen oxides. 1. ~~There-shall-be-no~~ No person may open burning-by burn any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

(2) AIR POLLUTION WARNING. (a) Any air contaminant or combination of air contaminants.

Any person responsible for the operation of a source of air contamination as set forth in ~~section-NR-154-20 (2)(a)~~ s. NR 493.02(1) shall take all AIR POLLUTION WARNING actions as required for such source of air contamination, and shall particularly put into effect the emission control action ~~programs~~ program for an AIR POLLUTION WARNING declared under s. NR 493.01(2).

(b) Particulate matter. 1. ~~There shall be no~~ No person may open burning-by burn any persons of tree waste, vegetation, refuse, or debris in any form.

2. ~~The~~ No person may use of incinerators for the disposal of any form of solid waste or liquid waste ~~shall be prohibited.~~

3. Persons operating fuel-burning equipment which requires intermittent boiler lancing or soot blowing shall perform such operations, to the maximum extent possible, between the hours of 12:00 noon and 4:00 p.m.

(c) Nitrogen oxides. 1. ~~There shall be no~~ No person may open burning-by burn any persons-of tree waste, vegetation, refuse, or debris in any form.

2. ~~The~~ No person may use of incinerators for the disposal of any form of solid waste or liquid waste ~~shall be prohibited.~~

(3) AIR POLLUTION EMERGENCY. (a) Any air contaminant or combination of air contaminants.  
1. Any person responsible for the operation of a source of air contamination ~~as described~~ set forth in section-NR-154-20-(2)-(a) s. NR 493.02(1) shall take all AIR POLLUTION EMERGENCY actions as required for such source of air contamination, and shall particularly put into effect the emission control action ~~programs~~ program for an AIR POLLUTION EMERGENCY declared under s. NR 493.01(2).

2. All manufacturing establishments except those included in ~~section-NR-154-20-(2)~~ ~~(a)~~ s. NR 493.02(1) shall institute such actions as will result in maximum reduction of air contaminants from their operations by ceasing, curtailing, or postponing operations which emit air contaminants to the extent possible without causing injury to persons or damage to equipment.

3. All places of employment described ~~below~~ in this subdivision shall immediately cease operations:

a. Mining and quarrying of nonmetallic minerals.



- b. All contract construction work except that which must proceed to avoid physical harm.
- c. Wholesale trade establishments, ~~to other places of business~~ which are primarily engaged in selling merchandise to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies.
- d. All offices of local, county, and state government and any other public body, except those offices that must continue to operate in order to enforce the requirements of this order ~~pursuant to statute.~~
- e. All retail trade establishments, except pharmacies and stores primarily engaged in the sale of food.
- f. Banks, credit agencies ~~other than banks~~, securities and commodities brokers, dealers, exchanges and services, offices of insurance carriers, agents and brokers, and real estate offices.
- g. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments, photographic studios, beauty shops, barber shops, shoe repair shops.
- h. Advertising offices, consumer credit reporting adjustment and collection agencies, duplicating, addressing, blueprinting, photocopying, mailing, mailing list and stenographic services, equipment rental services, commercial testing laboratories.
- i. Automobile repair, automobile services, garages.
- j. Establishments rendering amusement and recreation services, including motion picture theaters.
- k. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.
4. ~~There shall be no~~ No person may open burning by burn any person of tree waste, vegetation, refuse, or debris in any form.

5. ~~The~~ No person may use of incinerators for the disposal of any form of solid or liquid waste ~~shall-be-prohibited~~.

6. ~~The~~ No person may use of ~~a motor vehic~~~~les-is-prohibited~~ vehicle except in ~~emergentes~~ an emergency with the approval of local or state police.

(b) [Reserved]

(4) EPISODE ACTION. When the secretary determines that an air pollution episode condition exists at one or more monitoring sites solely because of emissions from a limited number of sources, ~~he~~ the secretary may order such source or sources to put into effect the emission control action programs which are applicable for each episode stage.

SECTION 4. NR 154.20(3)(e) is repealed.

SECTION 5. NR 155 (title) and FOREWARD and NR 155.01 (Intro), (1), (2), (3), and (4) are renumbered NR 404 (title) and NOTE and NR 404.01 (Intro.), (1), (2), (3), and (5), and NR 404.01(1), (2), (3) and (5) as renumbered, are amended to read:

NR 404.01 (1) ~~AIR-REGION~~--An "Air quality control region" means an area designated pursuant to ~~federal or Wisconsin laws~~ under 42 U.S.C. s. 7407 or s. NR 404.02 in which a program plan to maintain or achieve air standards is implemented on a regional basis. Air quality control regions include both interstate and intrastate regions.

(2) ~~AIR-STANDARD OR AMBIENT AIR QUALITY STANDARD~~--The definition of "Air standard" or "ambient air quality standard" means the specified levels of air quality which are necessary to protect public health and welfare.

a. ~~Primary air standard~~--The level of air quality which provides protection for public health with an adequate margin of safety.

b. ~~Secondary air standard~~--The level of air quality which may be necessary to protect ~~public welfare from anticipated adverse effects.~~ Ambient air quality standards include primary and secondary air standards.

(3) ~~AMBIENT AIR~~--The "Ambient air" means that portion of the atmosphere external to buildings and to which the general public has access.

(5) ~~IMPLEMENTATION PLAN~~--A "Implementation plan" means a plan adopted to implement, maintain and enforce air standards within the state, an air quality control region, or a portion thereof of the state or region.

SECTION 6. NR 155.01(5), (6), and (7) are repealed.

SECTION 7. NR 155.02 is repealed.

SECTION 8. NR 155.03 and 155.035 are renumbered NR 404.03 and 404.04, and NR 404.03, as renumbered, is amended to read:

NR 404.03 AMBIENT AIR QUALITY STANDARDS. (1) APPLICABILITY OF AIR STANDARDS. The air standards apply to the entire state without exception.

(2) SULFUR OXIDES: (a) Primary standards. The primary standards for sulfur oxides, measured as sulfur dioxide, are:

1. 80 micrograms per cubic meter (.03 ppm) - annual arithmetic mean.

2. 365 micrograms per cubic meter (.14 ppm) - maximum 24-hour average concentration, not to be exceeded more than once per year.

(b) Secondary standard. The secondary standard for sulfur oxides, measured as sulfur dioxide, is:

1. 1300 micrograms per cubic meter (0.5 ppm) - maximum 3-hour average concentration, not to be exceeded more than once per year.

↔ (3) PARTICULATE MATTER. (a) Primary standards. The primary standards for particulate matter are:

1. 75 micrograms per cubic meter - annual geometric mean.

2. 260 micrograms per cubic meter - maximum 24-hour average concentration, not to be exceeded more than once per year.

(b) Secondary standards. The secondary standards for particulate matter are:

1. 60 micrograms per cubic meter - annual geometric mean.

2. 150 micrograms per cubic meter - maximum 24-hour average concentration, not to be exceeded more than once per year.

↔ (4) CARBON MONOXIDE: PRIMARY AND SECONDARY STANDARDS. The primary and secondary standards for carbon monoxide are:

(a) 10 milligrams per cubic meter (9 ppm) - maximum 8-hour average concentration, not to be exceeded more than once per year.

(b) 40 milligrams per cubic meter (35 ppm) - maximum 1-hour concentration, not to be exceeded more than once per year.

~~4~~ (5) OZONE: PRIMARY AND SECONDARY STANDARDS. The primary and secondary standards for ozone are: 0.12 ppm (235 micrograms per cubic meter) - maximum 1-hour average concentration. The ozone standards are attained when the expected number of days per calendar year with maximum hourly average concentrations above the designated level is equal to or less than one, as determined by the methodology of 40 CFRs C.F.R.s 50.9, Appendix H (as of September 1, 1981).

(6) NITROGEN DIOXIDE: PRIMARY AND SECONDARY STANDARDS. The primary and secondary standards for nitrogen dioxide are: 100 micrograms per cubic meter (.05 ppm) - annual arithmetic mean.

(7) LEAD: PRIMARY AND SECONDARY STANDARDS. The primary and secondary standards for lead and its compounds, measured as elemental lead, are: 1.5 micrograms per cubic meter, maximum arithmetic mean averaged over a calendar quarter, as a constituent of suspended particulate matter.

SECTION 9. NR 155.04 is repealed.

SECTION 10. NR 155.05 and 155.06 are renumbered NR 404.06 and 404.07, respectively and NR 404.07(3), as renumbered, is amended to read:

NR 404.07 (3) FUELS AND RAW MATERIALS. The department may prescribe characteristics of fuels and raw materials for existing and planned facilities in order to assure attainment or maintenance of an air standard, to prevent the degradation of air quality or to prevent air pollution.

SECTION 11. NR 155.07 is repealed.

SECTION 12. NR 404.01 (4) and (6) to (13) are created to read:

NR 404.01 (4) "Equivalent method" means a monitoring method which has been designated as an equivalent method by the department and which has been published in a list by the department under s. NR 404.04(4)(a).

(6) "Monitoring method" means a method for sampling and analyzing or for continuously monitoring a discrete parcel of ambient air for an air contaminant. Monitoring methods include reference methods and equivalent methods.

(7) "Ozone" means an allotropic form of oxygen found in the atmosphere which is a photochemical oxidant that oxidizes compounds not readily oxidized by oxygen alone; ozone is a secondary pollutant resulting from the conversion of oxygen in the presence of sunlight and such precursors as volatile organic compounds and nitrogen oxides.

(8) "Primary air standard" means the level of air quality which provides protection for public health with an adequate margin of safety.

(9) "Quality assurance system" means the system of activities which provides evidence that the quality control systems are performing adequately.

(10) "Quality control system" means the system of activities which are used to control the quality of ambient monitoring or air emissions data, including all activities involved in the collection, processing and analysis of such data.

(11) "Reference method" means a monitoring method which has been specified by the U.S. environmental protection agency in 40 C.F.R. part 50, Appendices A to G or which has been so designated by the department.

(12) "Secondary air standard" means the level of air quality which may be necessary to protect public welfare from unknown or anticipated adverse effects.

(13) "Suspended particulate matter" means any solid or liquid particle dispersed and suspended in air which is capable of being trapped on the filter of a high volume air particulate sampler.

SECTION 13. NR 404.02 is created to read:

NR 404.02. AIR QUALITY CONTROL REGIONS. The following air quality control regions, which include counties in Wisconsin, have been designated:

(1) INTERSTATE AIR QUALITY CONTROL REGIONS.

(a) The Duluth (Minnesota) - Superior (Wisconsin) Interstate Air Quality Control Region includes the counties of Ashland, Bayfield, Burnett, Douglas, Iron, Price, Rusk, Sawyer, Taylor, and Washburn in Wisconsin, and the counties of Aitkin, Carlton, Cook, Itasca, Koochicong, Lake, and St. Louis in Minnesota.

(b) The Southeast Minnesota - LaCrosse (Wisconsin) Interstate Air Quality Control Region includes the counties of Barron, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, LaCrosse, Monroe, Pepin, Pierce, Polk, St. Croix, Trempealeau, and Vernon in Wisconsin, and the counties of Blue Earth, Brown, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Houston, LeSueur, Martin, Mower, Nicollet, Olmsted, Rice, Sibley, Steele, Wabasha, Waseca, Watonwan, and Winona in Minnesota.

(c) The Metropolitan Dubuque Interstate Air Quality Control Region includes Grant county in Wisconsin and Clayton, Dubuque, and Jackson counties in Iowa.

(d) The Rockford (Illinois) - Janesville-Beloit (Wisconsin) Interstate Air Quality Control Region includes Rock county in Wisconsin, and Boone, DeKalb, Ogle, Stephenson, and Winnebago counties in Illinois.

(2) INTRASTATE AIR QUALITY CONTROL REGIONS.

(a) The Lake Michigan Intrastate Air Quality Control Region consists of the counties of Brown, Calumet, Door, Fond du Lac, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, and Winnebago. For purposes of applying rules and regulations the Lake Michigan Air Region is divided into 2 subregions. Winnebago, Outagamie and Brown counties constitute subregion 1. Calumet, Door,

Fond du Lac, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Shawano, Sheboygan, Waupaca, and Waushara counties constitute subregion 2.

(b) The Southeastern Wisconsin Intrastate Air Quality Control Region consists of the counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha.

(c) The Southern Wisconsin Intrastate Air Quality Control Region consists of the counties of Columbia, Dane, Dodge, Green, Iowa, Jefferson, Lafayette, Richland and Sauk.

(d) The North Central Wisconsin Intrastate Air Quality Control Region consists of the counties of Adams, Forest, Florence, Juneau, Langlade, Lincoln, Marathon, Oneida, Portage, Vilas and Wood.

SECTION 14. NR 404.05 is created to read:

NR 404.05 MEASUREMENT OF AMBIENT AIR QUALITY. (1) APPLICABILITY. (a) The department and any person conducting ambient air quality monitoring on its behalf shall use only reference or equivalent methods as specified in sub. (2) or (3) for all ambient air quality monitoring for any air contaminant identified in s. NR 404.03. The ambient monitoring shall conform with the department's handbooks, plans and procedures for air monitoring quality assurance.

(b) Any person required by the department to conduct ambient air quality monitoring shall use only reference or equivalent methods for sampling and analysis as specified in sub. (2) or (3) and shall comply with quality assurance and quality control procedures and the data reporting format which are specified and approved by the department for the collection, analysis, processing and reporting of ambient air quality monitoring data.

(c) Any person who voluntarily conducts ambient air quality monitoring in Wisconsin may request the department to determine that the data being collected are comparable to the air quality data collected under par. (a) or (b). The department may determine that the data are comparable if the voluntary ambient air quality monitoring and the data meet the requirements specified in par. (b).



(d) The department may determine that air quality data submitted to the department for purposes of demonstrating compliance with existing regulations under ch. NR 154 or chs. NR 400 to 499 or in support of a permit or permit application are unacceptable if such monitoring was not conducted in compliance with pars. (a) to (c).

NOTE: The department is in the process of revising ch. NR 154 and renumbering provisions of the chapter into chs. NR 400 to 499.

(2) REFERENCE METHODS. Ambient air quality monitoring which utilizes a reference monitoring method shall use monitoring methods which conform to the federal reference methods which are specified in 40 C.F.R. part 50, Appendices A to K or which have been so designated by the department.

(3) EQUIVALENT METHODS. (a) Ambient air quality monitoring which utilizes an equivalent monitoring method shall use monitoring methods which have been published by the department under sub. (4)(a).

(b) The department may list a monitoring method as an equivalent method if the department determines that the method satisfies the same requirements for a federal equivalent method as specified in 40 C.F.R. part 53.

(c) The department shall maintain a list of equivalent methods and shall send a copy of the list to any person upon request. A current copy of the list shall be available for inspection or copying at the department's headquarters office.

NOTE: The Department's headquarters office is located at 101 South Webster Street, Madison, Wisconsin; mail requests should be addressed to the Department of Natural Resources, Bureau of Air Management, P.O. Box 7921, Madison, WI 53707.

(4) AIR QUALITY PUBLICATIONS. The department shall publish documents relating to air quality or to air monitoring, including the following:

(a) The department shall publish or revise a list of equivalent monitoring methods as specified in sub. (3).

(b) The department shall publish, revise and maintain quality assurance plans and handbooks which describe the activities and procedures of the quality assurance and quality control systems.

(c) The department shall publish reports on air quality and related information and data.

SECTION 15.-NR 493.01 is created to read:

NR 493.01 EPISODE LEVELS. (1) AIR EPISODE ADVISORY. The department may issue an Air Pollution Episode advisory to the general public if any air contaminant or combination of air contaminants reaches the respective level of concentration specified in Table 1 at any monitoring site.

(2) AIR EPISODE LEVELS. The department shall declare an Air Pollution Episode Level at the "Alert", "Warning" or "Emergency" stage if any air contaminant or combination of air contaminants reaches the respective level of concentration specified in Table 1 at any monitoring site and if meteorological conditions are such that the concentrations of the air contaminant can be expected to remain at or above that level for 12 or more hours, or in the case of ozone, to recur the following day at the same or a higher level, unless control actions are taken.

TABLE I

EPISODE STAGE CRITERIA FOR AIR CONTAMINANTS

AIR CONTAMINANTS	SAMPLING PERIOD	AVERAGING PERIOD	ALERT	WARNING	EMERGENCY
Particulate Matter	24-hours	Block average	375 ug/m <sup>3</sup>	625 ug/m <sup>3</sup>	875 ug/m <sup>3</sup>
Sulfur Dioxide	1-hour	Any hour	1870 ug/m <sup>3</sup> (0.70 ppm)	3730 ug/m <sup>3</sup> (1.40 ppm)	4990 ug/m <sup>3</sup> (1.90 ppm)
	24-hours	Continuous running average	800 ug/m <sup>3</sup> (0.30 ppm)	1600 ug/m <sup>3</sup> (0.60 ppm)	2100 ug/m <sup>3</sup> (0.80 ppm)
Product of Particulate Matter and Sulfur Dioxide	24-hours	Block average	65,000 (ug/m <sup>3</sup> ) <sup>2</sup>	261,000 (ug/m <sup>3</sup> ) <sup>2</sup>	393,000 (ug/m <sup>3</sup> ) <sup>2</sup>
Carbon Monoxide	8-hours	Continuous running average	17 ug/m <sup>3</sup> (15 ppm)	34 ug/m <sup>3</sup> (30 ppm)	46 ug/m <sup>3</sup> (40 ppm)
Ozone (for volatile organic compounds)	1-hour	Any hour	0.20 ppm (400 ug/m <sup>3</sup> )	0.40 ppm (800 ug/m <sup>3</sup> )	0.50 ppm (1000 ug/m <sup>3</sup> )
Nitrogen Dioxide	1-hour	Any hour	1130 ug/m <sup>3</sup> (0.60 ppm)	2260 ug/m <sup>3</sup> (1.20 ppm)	3000 ug/m <sup>3</sup> (1.60 ppm)

SECTION 16. NR 493.03(5) is created to read:

NR 493.03(5) TABLES FOR EMISSION REDUCTION:

TABLE 2  
EMISSION REDUCTION REQUIREMENTS FOR PARTICULATE MATTER

<u>Source of Air Contamination</u>	<u>Air Pollution Alert</u>	<u>Air Pollution Warning</u>	<u>Air Pollution Emergency</u>
1. Coal or oil-fired power generating facilities	a. Substantial reduction of particulates by utilization of fuels having lowest available ash content.	a. Maximum reduction of particulates by utilization of fuels having lowest available ash content	a. Maximum reduction of particulates by utilization of fuels having lowest available ash content.
	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Substantial reduction of particulates by diverting electric power generation to facilities outside of Alert Area.	c. Maximum reduction of particulates by diverting electric power generation to facilities outside of Warning Area.	c. Maximum reduction of particulates by diverting electric power generation to facilities outside of Emergency Area.
2. Coal or oil-fired process steam generating facilities	a. Substantial reduction of particulates by utilization of fuels having lowest available ash content.	a. Maximum reduction of particulates by utilization of fuels having lowest available ash content.	a. Maximum reduction of particulates by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Reduction of steam load demands consistent with continuing plant operations.	c. Reduction of steam load demands consistent with continuing plant operations.	c. Taking the action called for in the emergency portion of the emission control action program.
		d. Making ready for use a plan of action to be taken if an emergency develops.	

Source of  
Air Contamination

3. Manufacturing, processing,  
mining Industries.

OR

Other persons required by  
the department to prepare  
emission control action  
programs.

4. Refuse disposal  
operations.

Air Pollution Alert

a. Substantial reduction of  
particulates from manufacturing oper-  
ations by curtailing, postponing,  
or deferring production and allied  
operations.

b. Maximum reduction of particulates  
by deferring trade waste disposal  
operations which emit particles,  
gases, vapors or malodorous  
substances.

c. Reduction of heat load demands  
for processing consistent with con-  
tinuing plant operations.

a. Maximum reductions of particulates  
by prevention of open burning.

b. Substantial reduction of partic-  
ulates by limiting burning of refuse  
in incinerators to the hours between  
12:00 Noon and 4:00 pm.

Air Pollution Warning

a. Maximum reduction of  
particulates from manufacturing  
operations by, if necessary,  
assuming reasonable economic  
hardship by postponing  
production and allied operations.

b. Maximum reduction of  
particulates by deferring  
trade waste disposal operat-  
ions which emit particles,  
gases, vapors or malodorous  
substances.

c. Reduction of heat load  
demands for processing con-  
sistent with continuing  
plant operations.

a. Maximum reduction of par-  
ticulates by eliminating  
open burning.

b. Complete elimination of  
the use of incinerators.

Air Pollution Emergency

a. Elimination of particulates  
from manufacturing operations  
by ceasing, curtailing, post-  
poning or deferring production  
and allied operations to the  
extent possible without causing  
injury to persons or damage to  
equipment.

b. Elimination of particulates  
from trade waste disposal processes  
which emit particles, gases, vapors  
or malodorous substances.

c. Maximum reduction of heat  
load demands for processing.

a. Maximum reduction of par-  
ticulates by eliminating open  
burning.

b. Complete elimination of  
the use of incinerators.

TABLE 3

EMISSION REDUCTION REQUIREMENTS FOR SULFUR OXIDES

<u>Source of Air Contamination</u>	<u>Air Pollution Alert</u>	<u>Air Pollution Warning</u>	<u>Air Pollution Emergency</u>
1. Coal or oil-fired electric power generating facilities	<p>a. Substantial reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content.</p> <p>b. Substantial reduction of sulfur dioxide by diverting electric power generation to facilities outside of Alert Area.</p>	<p>a. Maximum reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content</p> <p>b. Maximum reduction of sulfur dioxide by diverting electric power generation to facilities outside of Warning Area.</p>	<p>a. Maximum reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content.</p> <p>b. Maximum reduction of sulfur dioxide by diverting electric power generation to facilities outside of Emergency Area.</p>
2. Coal or oil-fired process steam generating facilities.	<p>a. Substantial reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content.</p> <p>b. Reduction of steam load demands consistent with continuing plant operations.</p> <p>c. Reduction of heat load demands for processing consistent with continuing plant operations.</p>	<p>a. Maximum reduction of sulfur dioxide by utilization of fuels having the lowest available sulfur content.</p> <p>b. Reduction of steam load demands consistent with continuing plant operations.</p>	<p>a. Maximum reduction of sulfur dioxide by reducing heat and steam demands to absolute necessity consistent with preventing equipment damage.</p> <p>b. Taking the action called for in the emergency portion of the emission control action programs.</p>
<p>3. Manufacturing and processing industries</p> <p>OR</p> <p>Other persons required by the department to prepare emission control action programs.</p>	<p>a. Substantial reduction of sulfur dioxide from manufacturing operations by curtailing, postponing, or deferring production and allied operations.</p>	<p>a. Maximum reduction of sulfur dioxide from manufacturing operations by, if necessary, assuming reasonable economic hardship by postponing production and allied operations.</p>	<p>a. Elimination of sulfur dioxide from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.</p>

Source of  
Air Contamination

Air Pollution Alert

- b. Maximum reduction of sulfur dioxide by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances.
  
- c. Reduction of heat load demands for processing consistent with continuing plant operations.

Air Pollution Warning

- b. Maximum reduction of sulfur dioxide by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances.
  
- c. Reduction of heat load demands for processing consistent with continuing plant operations.

Air Pollution Emergency

- b. Elimination of sulfur dioxide from trade waste disposal processes which emit particles, gases, vapors or malodorous substances.
  
- c. Maximum reduction of heat load demands for processing.



TABLE 4

EMISSION REDUCTION REQUIREMENTS FOR NITROGEN OXIDES

<u>Source of Air Contamination</u>	<u>Air Pollution Alert</u>	<u>Air Pollution Warning</u>	<u>Air Pollution Emergency</u>
1. Steam-electric power generating facilities.	a. Substantial reduction of nitrogen oxides by utilization of fuel which results in the formation of less air contaminants.	a. Maximum reduction of nitrogen oxides by utilization of fuel which results in the formation of the least amount of air contaminant.	Maximum reduction of nitrogen oxides by diverting electric power generation to facilities outside of Emergency Area.
	b. Substantial reduction of nitrogen oxides by diverting electric power generation to facilities outside of Alert Area.	b. Maximum reduction of nitrogen oxides by diverting electric power generation to facilities outside of Warning Area.	
2. Process steam generating facilities	a. Substantial reduction of nitrogen oxides by utilization of fuel which results in the formation of less air contaminant.	a. Maximum reduction of nitrogen oxides by utilization of fuel which results in the formation of less air contaminant.	Maximum reduction of nitrogen oxides by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
	b. Reduction of steam load demands consistent with continuing plant operations.	b. Reduction of steam load demands consistent with continuing plant operations.	
		c. Making ready for use a plan of action to be taken if an emergency develops.	
3. Manufacturing and processing industries OR Other processes required by the department to prepare emission control action programs.	a. Substantial reduction of nitrogen oxides from manufacturing operations by curtailing, postponing, or deferring production and allied operations.	a. Maximum reduction of nitrogen oxides from manufacturing operations by, if necessary, assuming reasonable economic hardship by postponing production and allied operations.	a. Elimination of nitrogen oxides from manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

Source of  
Air Contamination

4. Stationary internal combustion engines.

Air Pollution Alert

b. Maximum reduction of nitrogen oxides by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances.

c. Reduction of heat load demands for processing consistent with continuing plant operations.

Reduction of power demands for pumping consistent with continuing operations.

Air Pollution Warning

b. Maximum reduction of nitrogen oxides by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances.

c. Reduction of heat load demands for processing consistent with continuing plant operations.

a. Reduction of power demands for pumping consistent with continuing operations.

b. Maximum reduction of nitrogen oxides by utilization of fuels or power source which results in the formation of less air contaminants.

Air Pollution Emergency

b. Elimination of nitrogen oxides from trade waste disposal processes which emit particles, gases, vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

a. Maximum reduction of nitrogen oxides by reducing power demands to absolute necessities consistent with personnel safety and preventing equipment damage.

b. Maximum reduction of nitrogen oxides by utilization of fuels or power source which results in the formation of less air contaminants.

TABLE 5

EMISSION REDUCTION REQUIREMENTS FOR VOLATILE ORGANIC COMPOUNDS  
FOR CONTROL OF OZONE

<u>Source of Air Contamination</u>	<u>Air Pollution Alert</u>	<u>Air Pollution Warning</u>	<u>Air Pollution Emergency</u>
1. Petroleum products storage and distribution.	Substantial reduction of volatile organic compounds by curtailing, postponing or deferring transfer operations.	Maximum reduction of volatile organic compounds by assuming reasonable economic hardship by postponing transfer operations.	Elimination of volatile organic compounds by curtailing, postponing, or deferring transfer operations to the extent possible without causing damage to equipment.
2. Surface coating and preparation.	Substantial reduction of volatile organic compounds by curtailing, postponing or deferring transfer operations.	Maximum reduction of volatile organic compounds by assuming reasonable economic hardship by postponing transfer operations.	Elimination of volatile organic compounds by curtailing, postponing, or deferring operations to the extent possible without causing damage to equipment.
3. Manufacturing and processing Industries OR Other persons required by the department to prepare emission control action programs.	Substantial reduction of volatile organic compounds from manufacturing operations by curtailing, postponing, or deferring production and allied operations.	Maximum reduction of volatile organic compounds from manufacturing operation by, if necessary, assuming reasonable economic hardship by postponing production and allied operations.	Elimination of volatile organic compounds from manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

TABLE 6

EMISSION REDUCTION REQUIREMENTS FOR CARBON MONOXIDE

<u>Source of Air Contamination</u>	<u>Air Pollution Alert</u>	<u>Air Pollution Warning</u>	<u>Air Pollution Emergency</u>
<p>1. Manufacturing and processing industries OR Other persons required by the department to prepare emission control action programs.</p>	<p>Substantial reduction of carbon monoxide from manufacturing operations by curtailing, postponing, or deferring production and allied operations.</p>	<p>Maximum reduction of carbon monoxide from manufacturing operations by, if necessary, assuming reasonable economic hardship by postponing production and allied operations.</p>	<p>Elimination of carbon monoxide from manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.</p>
<p>2. Refuse disposal operations.</p>	<p>Maximum reduction of carbon monoxide by eliminating open burning.</p>	<p>Maximum reduction of carbon monoxide by eliminating open burning.</p>	<p>Maximum reduction of carbon monoxide by eliminating open burning.</p>

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resource Board on February 27, 1985.

The rules herein shall take effect as provided in s. 227.026(1)(Intro.), Stats.

Dated at Madison, Wisconsin May 7, 1985.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

(SEAL)

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

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