

CHAPTER 31
NONATTAINMENT AREAS

567—31.1(455B) Permit requirements relating to nonattainment areas. This chapter implements the nonattainment major new source review (NSR) program contained in Part D of Title I of the federal Clean Air Act and as promulgated under 40 CFR 51.165 as amended through March 30, 2011, and 40 CFR 51, Appendix S, as amended through July 1, 2011.

The nonattainment major NSR program is a preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under Part D of Title I of the federal Clean Air Act as amended on November 15, 1990. The nonattainment major NSR program applies only in areas that do not meet the national ambient air quality standards (NAAQS).

Section 107(d) of the federal Clean Air Act, 42 U.S.C. §7457(d), requires each state to submit to the Administrator of the federal Environmental Protection Agency a list of areas that exceed the NAAQS, that are lower than those standards, or that cannot be classified on the basis of current data.

Requirements for nonattainment areas designated on or after May 18, 1998, are in rules 567—31.3(455B) through 567—31.10(455B). Requirements for nonattainment areas designated before May 18, 1998, are in rule 567—31.20(455B). A list of Iowa's nonattainment area designations is found at 40 CFR 81.316 as amended through August 5, 2013.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

567—31.2(455B) Conformity of general federal actions to the Iowa state implementation plan or federal implementation plan. The federal regulations relating to determining conformity of general federal actions to state or federal implementation plans, 40 CFR 93.150 and 93.152 through 93.165, as amended through April 5, 2010, are adopted by reference.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

NONATTAINMENT AREAS DESIGNATED ON OR AFTER MAY 18, 1998

567—31.3(455B) Nonattainment new source review requirements for areas designated nonattainment on or after May 18, 1998.

31.3(1) Definitions. For the purpose of nonattainment new source review, the following definitions shall apply:

“*Act*” means the Clean Air Act, 42 U.S.C. Sections 7401, et seq., as amended through November 15, 1990.

“*Actual emissions*” means:

1. The actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs “2” through “4,” except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under rule 567—31.9(455B). Instead, the definitions of projected actual emission and baseline actual emissions shall apply for those purposes.

2. 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 pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The department shall 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.

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

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

“*Administrator*” means the administrator for the U. S. Environmental Protection Agency (EPA) or designee.

“*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:

1. The applicable standards as set forth in 567—subrules 23.1(2) through 23.1(5) (new source performance standards, emissions standards for hazardous air pollutants, and federal emissions guidelines) or an applicable federal standard not adopted by the state, as set forth in 40 CFR Parts 60, 61 and 63;
2. The state implementation plan (SIP) emissions limitation, including those with a future compliance date; or
3. The emissions rate specified as an enforceable permit condition, including those with a future compliance date.

“*Baseline actual emissions*,” for the purposes of this rule, means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs “1” through “4.”

1. For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the five-year period immediately preceding when the owner or operator begins actual construction of the project. The department shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

(a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.

(b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emissions limitation that was legally enforceable during the consecutive 24-month period.

(c) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(d) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph “1”(b) of this definition.

2. For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the ten-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date on which a complete permit application is received by the department for a permit required either under this rule or under a plan approved by the Administrator, whichever is earlier, except that the ten-year period shall not include any period earlier than November 15, 1990.

(a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.

(b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.

(c) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under 40 CFR Part 63, the baseline actual emissions need only be adjusted if the state has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of subparagraph 31.3(3) “b”(7).

(d) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions

units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(e) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraphs “2”(b) and “2”(c) of this definition.

3. For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit’s potential to emit.

4. For a PAL for a major stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph “1,” for other existing emissions units in accordance with the procedures contained in paragraph “2,” and for a new emissions unit in accordance with the procedures contained in paragraph “3.”

“*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 operating this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

“*Best available control technology*” or “*BACT*” means an emissions limitation, including a visible emissions standard, based on the maximum degree of reduction for each regulated NSR pollutant 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 combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 567—subrules 23.1(2) through 23.1(5) (standards for new stationary sources, federal standards for hazardous air pollutants, and federal emissions guidelines), or federal regulations as set forth in 40 CFR Parts 60, 61 and 63 but not yet adopted by the state. 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 BACT. 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.

“*Building, structure, facility, or installation*” means all of the pollutant-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. Pollutant-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 two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0065 and 003-005-00176-0, respectively).

“*CFR*” means the Code of Federal Regulations, with standard references in this chapter by title and part, so that “40 CFR 51” or “40 CFR Part 51” means “Title 40 Code of Federal Regulations, Part 51.”

“*Clean coal technology*” means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

“*Clean coal technology demonstration project*” means a project using funds appropriated under the heading “Department of Energy—Clean Coal Technology,” up to a total amount of \$2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations

for the EPA. The federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

“*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:

1. Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
2. Entered into binding agreements or contractual obligations, which cannot be canceled 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.

“*Construction*” means any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit, that would result in a change in emissions.

“*Continuous emissions monitoring system*” or “*CEMS*” means all of the equipment that may be required to meet the data acquisition and availability requirements of this rule, to sample, to condition (if applicable), to analyze, and to provide a record of emissions on a continuous basis.

“*Continuous emissions rate monitoring system*” or “*CERMS*” means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).

“*Continuous parameter monitoring system*” or “*CPMS*” means all of the equipment necessary to meet the data acquisition and availability requirements of this rule, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂ concentrations), and to record average operational parameter value(s) on a continuous basis.

“*Electric utility steam generating unit*” means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

“*Emissions unit*” means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric steam generating unit. For purposes of this rule, there are two types of emissions units as described in paragraphs “1” and “2.”

1. A new emissions unit is any emissions unit which is (or will be) newly constructed and which has existed for less than two years from the date such emissions unit first operated.
2. An existing emissions unit is any emissions unit that does not meet the requirements in paragraph “1” of this definition. A replacement unit is an existing emissions unit.

“*Federal land manager*” means, with respect to any lands in the United States, the secretary of the department with authority over such lands.

“*Federally enforceable*” means all limitations and conditions which are enforceable by the Administrator and the department, including those federal requirements not yet adopted by the state, developed pursuant to 40 CFR Parts 60, 61, and 63; requirements within 567—subrules 23.1(2) through 23.1(5); requirements within the SIP; any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, as amended through October 20, 2010, including operating permits issued under an EPA-approved program that is incorporated into the SIP and expressly requires adherence to any permit issued under such program.

“*Fugitive emissions*” means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

“*Lowest achievable emission rate*” or “*LAER*” means, for any source, the more stringent rate of emissions based on the following:

1. The most stringent emissions limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

2. The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within or stationary source. In no event shall the application of the term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

“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 emissions increase of a regulated NSR pollutant and a significant net emissions increase of that pollutant from the major stationary source.

1. Any significant emissions increase from any emissions units or net emissions increase at a major stationary source that is significant for volatile organic compounds shall be considered significant for ozone.

2. A physical change or change in the method of operation shall not include:

(a) Routine maintenance, repair and replacement;

(b) Use of an alternative fuel or raw material by reason of an 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;

(c) Use of an alternative fuel by reason of an order or rule Section 125 of the Act;

(d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(e) Use of an alternative fuel or raw material by a stationary source which the source was capable of accommodating before December 21, 1976, unless such change would be prohibited under any federally enforceable permit condition which was established after December 12, 1976, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or § 51.166; or the source is approved to use under any permit issued under regulations approved pursuant to this rule;

(f) An increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition which was established after December 21, 1976, pursuant to 40 CFR 52.21 or regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166.

(g) Any change in ownership at a stationary source.

(h) Reserved.

(i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with the SIP, and other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated.

3. This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under rule 567—31.9(455B) of this chapter for a PAL for that pollutant. Instead, the definition at 567—31.9(455B) shall apply.

4. For the purpose of applying the requirements of subrule 31.3(8) to modifications at major stationary sources of nitrogen oxides located in ozone nonattainment areas or in ozone transport regions, whether or not subject to Subpart 2, Part D, Title I of the Act, any significant net emissions increase of nitrogen oxides is considered significant for ozone.

5. Any physical change in, or change in the method of operation of, a major stationary source of volatile organic compounds that results in any increase in emissions of volatile organic compounds from any discrete operation, emissions unit, or other pollutant emitting activity at the source shall be considered a significant net emissions increase and a major modification for ozone, if the major stationary source is located in an extreme ozone nonattainment area that is subject to Subpart 2, Part D, Title I of the Act.

“Major stationary source” means:

1. Any stationary source of air pollutants that emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant, except that lower emissions thresholds shall apply in areas subject to Subpart 2, Subpart 3, or Subpart 4 of Part D, Title I of the Act, according to definitions in 31.3(1).

- (a) 50 tons per year of volatile organic compounds in any serious ozone nonattainment area.
- (b) 50 tons per year of volatile organic compounds in an area within an ozone transport region, except for any severe or extreme ozone nonattainment area.
- (c) 25 tons per year of volatile organic compounds in any severe ozone nonattainment area.
- (d) 10 tons per year of volatile organic compounds in any extreme ozone nonattainment area.
- (e) 50 tons per year of carbon monoxide in any serious nonattainment area for carbon monoxide, where stationary sources contribute significantly to carbon monoxide levels in the area (as determined under rules issued by the Administrator as amended through [effective date of these rules]).

(f) 70 tons per year of PM₁₀ in any serious nonattainment area for PM₁₀;

2. For the purposes of applying the requirements of subrule 31.3(8) to stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, any stationary source which emits, or has the potential to emit, 100 tons per year or more of nitrogen oxides emissions, except that the following emission thresholds apply in areas subject to Subpart 2 of Part D, Title I of the Act:

(a) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as marginal or moderate.

(b) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as a transitional, submarginal, or incomplete or no data area, when such area is located in an ozone transport region.

(c) 100 tons per year or more of nitrogen oxides in any area designated under Section 107(d) of the Act as attainment or unclassifiable for ozone that is located in an ozone transport region.

(d) 50 tons per year or more of nitrogen oxides in any serious nonattainment area for ozone.

(e) 25 tons per year or more of nitrogen oxides in any severe nonattainment area for ozone.

(f) 10 tons per year or more of nitrogen oxides in any extreme nonattainment area for ozone; or

3. Any physical change that would occur at a stationary source not qualifying under subrule 31.3(1) as a major stationary source, if the change would constitute a major stationary source by itself.

4. A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

5. The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this rule whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources: coal cleaning plants (with thermal dryers); kraft pulp mills; Portland cement plants; primary zinc smelters; iron and steel mills; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 250 tons of refuse per day; hydrofluoric, sulfuric, or 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—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140; fossil-fuel boilers (or combination 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; charcoal production plants; fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; and any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Act.

“Necessary preconstruction approvals or permits” means those permits or approvals required under federal air quality control laws and regulations and those air quality control laws and regulations which are part of the SIP.

“Net emissions increase” means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero: the increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated according to the applicability requirements of paragraph 31.3(2) “b,” and any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the

particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases shall be determined as provided in the “baseline actual emissions” definition, except that paragraphs “1”(c) and “2”(d) shall not apply.

1. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if the increase or decrease in actual emissions occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs;

2. An increase or decrease in actual emissions is creditable only if:

(a) The increase or decrease in actual emissions occurs within the contemporaneous time period, as noted in paragraph “1” of this definition; and

(b) The department has not relied on the increase or decrease in actual emissions in issuing a permit for the source under this rule, which permit is in effect when the increase in actual emissions from the particular change occurs; and

(c) Reserved.

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

4. A decrease in actual emissions is creditable only to the extent that:

(a) The old level of actual emission or the old level of allowable emissions whichever is lower, exceeds the new level of actual emissions;

(b) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins; and

(c) The department has not relied on a decrease in actual emissions in issuing any permit under regulations approved pursuant to 40 CFR Part 51, Subpart I, or has not relied on a decrease in actual emissions in demonstrating attainment or reasonable further progress;

(d) The decrease in actual emissions has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; and

5. 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.

6. Actual emissions shall not apply for determining creditable increases and decreases or after a change.

“Nonattainment major new source review (NSR) program” means a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of this rule, or a program that implements 40 CFR Part 51, Appendix S, Sections I through VI, as amended on October 25, 2012. Any permit issued under such a program is a major NSR permit.

“Pollution prevention” means any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal. “Pollution prevention” does not mean recycling (other than certain “in-process recycling” practices), energy recovery, treatment, or disposal.

“Potential to emit” means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only 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.

“Predictive emissions monitoring system” or *“PEMS”* means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂

concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

“Prevention of significant deterioration (PSD) permit” means any permit that is issued under a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of 40 CFR 51.166, or under the program in 40 CFR 52.21.

“Project” means a physical change in, or change in the method of operation of, an existing major stationary source.

“Projected actual emissions” means the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the five years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the ten years following that date, if the project involves increasing the emissions unit’s design capacity or its potential to emit of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source. In determining the projected actual emissions before beginning actual construction, the owner or operator of the major stationary source:

1. Shall consider all relevant information including, but not limited to, historical operational data, the company’s own representations, the company’s expected business activity and the company’s highest projections of business activity, the company’s filings with the state or federal regulatory authorities, and compliance plans under the approved plan; and

2. Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and

3. Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit’s emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or

4. In lieu of using the method set out in paragraphs “1” through “3,” may elect to use the emissions unit’s potential to emit, in tons per year.

“Reasonable period” means an increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if the increase or decrease in actual emissions occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs.

“Regulated NSR pollutant” means the following:

1. Nitrogen oxides or any volatile organic compounds;
2. Any pollutant for which a national ambient air quality standard has been promulgated;
3. Any pollutant that is identified as a constituent or precursor of a general pollutant listed under paragraph “1” or “2,” provided that such constituent or precursor pollutant may only be regulated under NSR as part of regulation of the general pollutant. Precursors identified by the Administrator for purposes of NSR are the following:

- (a) Volatile organic compounds and nitrogen oxides are precursors to ozone in all ozone nonattainment areas.

- (b) Sulfur dioxide is a precursor to $PM_{2.5}$ in all $PM_{2.5}$ nonattainment areas.

- (c) Nitrogen oxides are presumed to be precursors to $PM_{2.5}$ in all $PM_{2.5}$ nonattainment areas, unless the department demonstrates to the EPA’s satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to the area’s ambient $PM_{2.5}$ concentrations.

- (d) Volatile organic compounds and ammonia are presumed not to be precursors to $PM_{2.5}$ in any $PM_{2.5}$ nonattainment area, unless the department demonstrates to the EPA’s satisfaction or EPA demonstrates that emissions of volatile organic compounds or ammonia from sources in a specific area are a significant contributor to that area’s ambient $PM_{2.5}$ concentrations; or

4. $PM_{2.5}$ emissions and PM_{10} emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures.

“*Replacement unit*” means an emissions unit for which all the criteria listed in paragraphs “1” through “4” of this definition are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

1. The emissions unit is a reconstructed unit within the meaning of 40 CFR 60.15(b)(1) as amended through December 16, 1975, or the emissions unit completely takes the place of an existing emissions unit.

2. The emissions unit is identical to or functionally equivalent to the replaced emissions unit.

3. The replacement does not alter the basic design parameters of the process unit.

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

“*Reviewing authority*” means the department of natural resources.

“*Secondary emissions*” means emissions which would 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 purpose of this rule, “secondary emissions” must be specific, well defined, quantifiable, and impact the same general area 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.

“*Significant*” means:

1. In reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant Emission Rate

(a) Carbon monoxide: 100 tons per year (tpy)

(b) Nitrogen oxides: 40 tpy

(c) Sulfur dioxide: 40 tpy

(d) Ozone: 40 tpy of volatile organic compounds or nitrogen oxides

(e) Lead: 0.6 tpy

(f) PM₁₀: 15 tpy

(g) PM_{2.5}: 10 tpy of direct PM_{2.5} emissions; 40 tpy of sulfur dioxide emissions; 40 tpy of nitrogen oxide emissions unless the department demonstrates to EPA’s satisfaction that the emissions of nitrogen oxides from sources in a specific area are not a significant contributor to the area’s ambient PM_{2.5} concentrations.

2. Notwithstanding the significant emissions rate for ozone, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of volatile organic compounds that would result from any physical change in, or change in the method of operation of, a major stationary source locating in a serious or severe ozone nonattainment area that is subject to Subpart 2, Part D, Title I of the Act, if such emissions increase of volatile organic compounds exceeds 25 tons per year.

3. For the purposes of applying the requirements of subrule 31.3(8) to modifications at major stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, the significant emission rates and other requirements for volatile organic compounds in paragraphs “1,” “2,” and “5” shall apply to nitrogen oxides emissions.

4. Notwithstanding the significant emissions rate for carbon monoxide, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of carbon monoxide that would result from any physical change in, or change in the method of operation of, a major stationary source in a serious nonattainment area for carbon monoxide if such increase equals or exceeds 50 tons per year, provided the department has determined that stationary sources contribute significantly to carbon monoxide levels in that area.

5. Notwithstanding the significant emissions rates for ozone under paragraphs “1” and “2,” any increase in actual emissions of volatile organic compounds from any emissions unit at a major stationary source of volatile organic compounds located in an extreme ozone nonattainment area that is subject to Subpart 2, Part D, Title I of the Act shall be considered a significant net emissions increase.

“*Significant emissions increase*” means, for a regulated NSR pollutant, an increase in emissions that is significant for that pollutant.

“*Stationary source*” means any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.

“*Temporary clean coal technology demonstration project*” means a clean coal technology demonstration project that is operated for a period of five years or less, and which complies with the SIP and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

“*Volatile organic compounds*” or “*VOC*” means any compound included in the definition of “volatile organic compounds” found at 40 CFR 51.100(s) as amended through January 21, 2009.

31.3(2) Applicability procedures.

a. This subrule adopts a preconstruction review program to satisfy the requirements of Sections 172(c)(5) and 173 of the Act for any area designated nonattainment for any national ambient air quality standard under Subpart C of 40 CFR Part 81 as amended on August 5, 2013, and shall apply to any new major stationary source or major modification that is major for the pollutant for which the area is designated nonattainment under Section 107(d)(1)(A)(i) of the Act, if the stationary source or modification would locate anywhere in the designated nonattainment area.

b. Each plan shall use the specific provisions of subparagraphs (1) through (6) of this paragraph. Deviations from these provisions will be approved only if the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in subparagraphs (1) through (6) of this paragraph.

(1) Except as otherwise provided in paragraph 31.3(2)“c,” and consistent with the definition of major modification, a project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases—a significant emissions increase and a significant net emissions increase. The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.

(2) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified, according to subparagraphs (3) through (6) of this paragraph. The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source. Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.

(3) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions and the baseline actual emissions, for each existing emissions unit, equals or exceeds the significant amount for that pollutant.

(4) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit from each new emissions unit following completion of the project and the baseline actual emissions of these units before the project equals or exceeds the significant amount for that pollutant.

(5) Reserved.

(6) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in subparagraphs (3) and (4) of this paragraph as applicable

with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant.

c. The plan shall require that for any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with requirements under rule 567—31.9(455B).

31.3(3) Creditable offsets.

a. For sources and modifications subject to any preconstruction review program, the baseline for determining credit for emissions reductions is the emissions limit in effect at the time the application to construct is filed, except that the offset baseline shall be the actual emissions of the source from which offset credit is obtained where;

(1) The demonstration of reasonable further progress and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area for which the preconstruction review program was adopted; or

(2) The SIP does not contain an emissions limitation for that source or source category.

b. Providing that:

(1) Where the emissions limit under the SIP allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential;

(2) For an existing fuel combustion source, credit shall be based on the allowable emissions under the SIP for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable (or actual) emissions for the fuels involved is not acceptable, unless the permit is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a dirtier fuel at some later date. The department should ensure that adequate long-term supplies of the new fuel are available before granting emissions offset credit for fuel switches,

(3) Emissions reductions achieved by shutting down an existing emission unit or curtailing production or operating hours may be generally credited for offsets if: such reductions are surplus, permanent, quantifiable, and federally enforceable; and the shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this subparagraph, the department may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.

Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours and that do not meet the requirements above may be generally credited only if: the shutdown or curtailment occurred on or after the date the construction permit application is filed; or the applicant can establish that the proposed new emissions unit is a replacement for the shutdown or curtailed emissions unit, and the emissions reductions achieved by the shutdown or curtailment met the requirements of this subparagraph.

(4) No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds" (42 FR 35314, July 8, 1977);

(5) All emission reductions claimed as offset credit shall be federally enforceable;

(6) Procedures relating to the permissible location of offsetting emissions shall be followed which are at least as stringent as those set out in 40 CFR Part 51, Appendix S, Section IV.D, as amended on October 25, 2012.

(7) Credit for an emissions reduction can be claimed to the extent that the department has not relied on it in issuing any permit under regulations approved pursuant to 40 CFR Part 51, Subpart I, or the state has not relied on it in demonstration attainment or reasonable further progress.

(8) Reserved.

(9) Reserved.

(10) The total tonnage of increased emissions, in tons per year, resulting from a major modification that must be offset in accordance with Section 173 of the Act shall be determined by summing the

difference between the allowable emissions after the modification and the actual emissions before the modification for each emissions unit.

31.3(4) The department may provide that the provisions of this subrule do not apply to a source or modification that 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 the source does not belong to any of the following categories: coal cleaning plants (with thermal dryers); kraft pulp mills; Portland cement plants; primary zinc smelters; iron and steel mills; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 250 tons of refuse per day; hydrofluoric, sulfuric, or 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—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140; fossil-fuel boilers (or combination 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; charcoal production plants; fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; and any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Act.

31.3(5) Enforceable procedures.

a. Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provision of the plan and any other requirements under local, state or federal law.

b. 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 enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this rule shall apply to the source or modification as though construction had not yet commenced on the source or modification.

31.3(6) Except as otherwise provided in paragraph 31.3(6) “*f*,” the following specific provisions apply with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of paragraph 31.3(6) “*f*,” that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, and the owner or operator elects to use the method specified in paragraphs “1” through “3” of the definition of “projected actual emissions” for calculating projected actual emissions. Deviations from these provisions will be approved only if the state specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in paragraphs 31.3(6) “*a*” through “*f*.”

a. Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

- (1) A description of the project;
- (2) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph “3” of the definition of “projected actual emissions” and an explanation for why such amount was excluded, and any netting calculations, if applicable.

b. If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph 31.3(6) “*a*” to the department. Nothing in paragraph 31.3(6) “*b*” shall be construed to require the owner or operator of such a unit to obtain any determination from the reviewing authority before beginning actual construction.

c. The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions units identified in subparagraph 31.3(6)“a”(2); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of ten years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

d. If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the department within 60 days after the end of each year during which records must be generated under paragraph 31.3(6)“c” setting out the unit’s annual emissions during the year that preceded submission of the report.

e. If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the department if the annual emissions, in tons per year, from the project identified in paragraph 31.3(6)“a,” exceed the baseline actual emissions (as documented and maintained under subparagraph 31.3(6)“a”(3)), by a significant amount for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained under subparagraph 31.3(6)“a”(3). Such report shall be submitted to the department within 60 days after the end of such year. The report shall contain the following:

- (1) The name, address and telephone number of the major stationary source;
- (2) The annual emissions as calculated pursuant to paragraph 31.3(6)“c”; and
- (3) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

f. A “reasonable possibility” under this subrule occurs when the owner or operator calculates the project to result in either:

- (1) A projected actual emissions increase of at least 50 percent of the amount that is a “significant emissions increase” (without reference to the amount that is a significant net emissions increase) for the regulated NSR pollutant; or
- (2) A projected actual emissions increase that, added to the amount of emissions excluded under paragraph “3” of the definition of “projected actual emissions,” sums to at least 50 percent of the amount that is a “significant emissions increase” (without reference to the amount that is a significant net emissions increase) for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of this subparagraph, and not also within the meaning of subparagraph (1), then paragraphs 31.3(6)“b” through “e” do not apply to the project.

31.3(7) The owner or operator of the source shall make the information required to be documented and maintained pursuant to this subrule available for review upon a request for inspection by the department or the general public pursuant to the requirements contained in 40 CFR 70.4(b)(3)(viii) as amended through October 6, 2009.

31.3(8) The requirements of this subrule applicable to major stationary sources and major modifications of volatile organic compounds shall apply to nitrogen oxides emissions from major stationary sources and major modifications of nitrogen oxides in an ozone transport region or in any ozone nonattainment area, except in ozone nonattainment areas or in portions of an ozone transport region where the Administrator has granted a NO_x waiver applying the standards set forth under Section 182(f) of the Act and the waiver continues to apply.

31.3(9) Offset ratios.

a. In meeting the emissions offset requirements of subrule 31.3(3), the ratio of total actual emissions reductions to the emissions increase shall be at least 1:1 unless an alternative ratio is provided for the applicable nonattainment area in paragraphs 31.3(9)“b” through “d.”

b. The plan shall require that in meeting the emissions offset requirements of subrule 31.3(3) for ozone nonattainment areas that are subject to Subpart 2, Part D, Title I of the Act, the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be as follows:

- (1) In any marginal nonattainment area for ozone—at least 1.1:1;
- (2) In any moderate nonattainment area for ozone—at least 1.15:1;
- (3) In any serious nonattainment area for ozone—at least 1.2:1;

(4) In any severe nonattainment area for ozone—at least 1.3:1 (except that the ratio may be at least 1.2:1 if the approved plan also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and

(5) In any extreme nonattainment area for ozone—at least 1.5:1 (except that the ratio may be at least 1.2:1 if the approved plan also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and

c. Notwithstanding the requirements of subrule 31.3(9) for meeting the requirements of subrule 31.3(3), the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1.15:1 for all areas within an ozone transport region that is subject to Subpart 2, Part D, Title I of the Act, except for serious, severe, and extreme ozone nonattainment areas that are subject to Subpart 2, Part D, Title I of the Act.

d. In meeting the emissions offset requirements of subrule 31.3(3) for ozone nonattainment areas that are subject to Subpart 1, Part D, Title I of the Act (but are not subject to Subpart 2, Part D, Title I of the Act, including eight-hour ozone nonattainment areas subject to 40 CFR 51.902(b)), the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1:1.

31.3(10) The requirements of this rule applicable to major stationary sources and major modifications of PM₁₀ shall also apply to major stationary sources and major modifications of PM₁₀ precursors.

31.3(11) In meeting the emissions offset requirements of subrule 31.3(3), the emissions offsets obtained shall be for the same regulated NSR pollutant unless interprecursor offsetting is permitted for a particular pollutant as specified in this subrule. The offset requirements in subrule 31.3(3) for direct PM_{2.5} emissions or emissions of precursors of PM_{2.5} may be satisfied by offsetting reductions in direct PM_{2.5} emissions or emissions of any PM_{2.5} precursor if such offsets comply with the interprecursor trading hierarchy and ratio established in the approved plan for a particular nonattainment area.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

567—31.4(455B) Preconstruction review permit program.

31.4(1) Sources shall comply with the requirements of Section 110(a)(2)(D)(i) of the Act for any new major stationary source or major modification as defined in subrule 31.3(1). The definitions in subrule 31.3(1) for “major stationary source” and “major modification” planning to locate in any area designated as attainment or unclassifiable for any national ambient air quality standard pursuant to Section 107 of the Act, apply when that source or modification would cause or contribute to a violation of any national ambient air quality standard.

31.4(2) A major source or major modification will be considered to cause or contribute to a violation of a national ambient air quality standard when such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the applicable national standard:

Pollutant	Annual	Averaging time (hours)			
		24	8	3	1
SO ₂	1.0 µg/m ³	5 µg/m ³		25 µg/m ³	
PM ₁₀	1.0 µg/m ³	5 µg/m ³			
PM _{2.5}	0.3 µg/m ³	1.2 µg/m ³			
NO ₂	1.0 µg/m ³				
CO			0.5 mg/m ³		2 mg/m ³

31.4(3) A proposed major source or major modification subject to this rule may reduce the impact of its emissions upon air quality by obtaining sufficient emission reductions to, at a minimum, compensate for its adverse ambient impact where the major source or major modification would otherwise cause or contribute to a violation of any national ambient air quality standard. In the absence of such emission reductions, the proposed construction permit application shall be denied.

31.4(4) The requirements of this rule shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment pursuant to Section 107 of the Act.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

567—31.5(455B) to 31.8(455B) Reserved.

567—31.9(455B) Actuals PALs. Except as provided in subrule 31.9(1), the provisions for actuals PALs as specified in 40 CFR 51.165(f) as amended through March 30, 2011, are adopted by reference.

31.9(1) The following portions of actuals PALs in 40 CFR 51.165(f) are modified to read as follows:

a. 40 CFR 51.165(f)(2): Definitions. The definitions in paragraphs (f)(2)(i) through (xi) of this section shall be applicable to actuals PALs for purposes of paragraphs (f)(1) through (15) of this section. Any terms not defined in paragraphs (f)(2)(i) through (xi) shall have the meaning prescribed by rule 567—31.3(455B) or the meaning prescribed by the Act.

b. 40 CFR 51.165(f)(8)(ii)(B): The reviewing authority shall have discretion to reopen the PAL permit for the following:

c. 40 CFR 51.165(f)(10)(ii): Application deadline. A major stationary source owner or operator shall submit a timely application to the reviewing authority to request renewal of a PAL. In order to be considered timely, the application shall be submitted at least 6 months prior to, but not earlier than 18 months prior to, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

d. 40 CFR 51.165(f)(15)(i): Each PAL shall comply with the requirements contained in paragraphs (f)(1) through (15) of this section.

e. 40 CFR 51.165(f)(15)(ii): Any PAL issued prior to January 15, 2014, may be superseded with a PAL that complies with the requirements of paragraphs (f)(1) through (15) of this section.

31.9(2) Reserved.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

567—31.10(455B) Validity of rules. If any provision of rules 567—31.3(455B) through 567—31.9(455B), or the application of such provision to any person or circumstance, is held invalid, the remainder of these rules, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

[ARC 1227C, IAB 12/11/13, effective 1/15/14]

567—31.11(455B) to 31.19(455B) Reserved.

NONATTAINMENT AREAS DESIGNATED BEFORE MAY 18, 1998

567—31.20(455B) Special requirements for nonattainment areas designated before May 18, 1998 (originally adopted in 567—22.5(455B)).

31.20(1) Definitions.

a. “Major stationary source” means any of the following:

(1) Any stationary source of air contaminants which emits, or has the potential to emit, 100 tons per year or more of any regulated air contaminant;

(2) Any physical change that would occur at a stationary source not qualifying under subparagraph (1) as a major stationary source, if the change would constitute a major stationary source by itself;

(3) For ozone nonattainment areas, sources with the potential to emit 100 tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as “marginal” or “moderate,” 50 tpy or more in areas classified as “serious,” 25 tpy or more in areas classified as “severe” and 10 tpy or more in areas classified as “extreme”; except that the references in this paragraph to 100, 50, 25, and 10 tpy of nitrogen oxides shall not apply with respect to any source for which the Administrator has made a finding, under

Section 182(f)(1) or (2) of the Clean Air Act, that requirements under Section 182(f) of the Clean Air Act do not apply;

(4) For ozone transport regions established pursuant to Section 184 of the Clean Air Act, sources with potential to emit 50 tpy or more of volatile organic compounds;

(5) For carbon monoxide nonattainment areas that both are classified as “serious” and in which there are stationary sources which contribute significantly to carbon monoxide levels, sources with the potential to emit 50 tpy or more of carbon monoxide; or

(6) For particulate matter (PM₁₀), nonattainment areas classified as “serious,” sources with the potential to emit 70 tpy or more of PM₁₀.

A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

b. “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 emission increase of any regulated air contaminant.

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

(2) A physical change, or change in the method of operation, shall not include:

Routine maintenance, repair, and replacement;

Use of an alternative fuel or raw material by reason of an 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 in effect pursuant to the Federal Power Act;

Use of an alternative fuel by reason of an order or rule under Section 125 of the Clean Air Act;

Any change in ownership at a stationary source;

Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

Use of an alternative fuel or raw material by a stationary source which the source was capable of accommodating before December 21, 1976, unless such change would be prohibited by any enforceable permit condition; or

An increase in the hours of operation or in the production rate, unless such change is prohibited under any enforceable permit condition.

c. “Potential to emit” means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only 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.

The provisions of this paragraph do not apply to a source or modification that 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 the source does not belong to any of the following categories:

Coal cleaning plants (with thermal dryers);

Kraft pulp mills;

Portland cement plants;

Primary zinc smelters;

Iron and steel mills;

Primary aluminum ore reduction plants;

Primary copper smelters;

Municipal incinerators capable of charging more than 250 tons of refuse per day;

Hydrofluoric, sulfuric, or 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 combination 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;
Charcoal production plants;
Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;

Any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Clean Air Act, 42 U.S.C. §§7401 et seq.

d. "Lowest achievable emission rate" means, for any source, that rate of emissions based on the following, whichever is more stringent:

(1) The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

(2) The most stringent emission limitation which is achieved in practice by such class or category of source.

This term, applied to a modification, means the lowest achievable emission rate for the new or modified emission units within the stationary source.

This term may include a design, equipment, material, work practice or operational standard or combination thereof.

In no event shall the application of this term permit a proposed new or modified stationary source to emit any regulated air contaminant in excess of the amount allowable under applicable new source standards of performance.

e. "Secondary emissions" means emissions which occur or could occur as a result of the construction or operation of a major stationary source or major modification, but do not necessarily come from the major stationary source or major modification itself. For purposes of this rule, secondary emissions must be specific and well-defined, must be quantifiable, and must affect the same general nonattainment area as the stationary source or modification which causes the secondary emission. Secondary emissions may include, but are not limited to:

Emissions from barges or trains coming to or from the new or modified stationary source; and

Emissions from any off-site support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.

f. (1) "Net emissions increase" means the amount by which the sum of the following exceeds zero:

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

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

(2) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs.

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

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

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

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

It is an enforceable permit condition at and after the time that actual construction on the particular change begins;

The director has not relied on it in issuing any other permit;

Such emission decreases have not been used for showing reasonable further progress; and

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

(6) 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.

g. “Emissions unit or installation” means an identifiable piece of process equipment.

h. “Reconstruction” will be presumed to have taken place where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new stationary source. Any final decision as to whether reconstruction has occurred shall be made in accordance with the provisions of new source performance standards (see 567—subrule 23.1(2)). A reconstructed stationary source will be treated as a new stationary source for purposes of this rule. In determining lowest achievable emission rate for a reconstructed stationary source, the definitions in the new source performance standards shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.

i. “Fixed capital cost” means the capital needed to provide all the depreciable components.

j. “Fugitive emissions” means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

k. “Significant” means in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant and Emissions Rate

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy

Sulfur dioxide: 40 tpy

Particulate matter: 25 tpy

Ozone: 40 tpy of volatile organic compounds

Lead: 0.6 tpy

PM₁₀: 15 tpy

l. “Allowable emissions” means the emissions rate calculated using the maximum rated capacity of the source (unless the source is subject to an enforceable permit condition which restricts the operating rate, or hours of operation, or both) and the most stringent of the following:

(1) Applicable standards as set forth in 567—Chapter 23;

(2) Any applicable state implementation plan emissions limitation, including those with a future compliance date; or

(3) The emissions rate specified as an enforceable permit condition, including those with a future compliance date.

m. “Enforceable permit condition” for the purpose of this rule means any of the following limitations and conditions: requirements developed pursuant to new source performance standards, prevention of significant deterioration standards, emission standards for hazardous air pollutants,

requirements within the state implementation plan, and any permit requirements established pursuant to this rule, or under construction or Title V operating permit rules.

n. (1) “*Actual emissions*” means the actual rate of emissions of a pollutant from an emissions unit as determined in accordance with subparagraphs (2) to (4) below.

(2) 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 pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall 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.

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

(4) 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.

o. “*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.

p. “*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:

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

(2) Entered into binding agreements or contractual obligations, which cannot be canceled 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.

q. “*Necessary preconstruction approvals or permits*” means those permits or approvals required under federal air quality control laws and regulations and those air quality control laws and regulations which are part of the state implementation plan.

r. “*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 operating, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

s. “*Building, structure, or facility*” means all of the pollutant-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). Pollutant-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 two-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 003-005-00176-0 respectively).

31.20(2) Applicability. Areas designated as attainment, nonattainment, or unclassified are as listed in 40 CFR §81.316 as amended through March 19, 1998.

a. The requirements contained in rule 567—31.20(455B) shall apply to any new major stationary source or major modification that, as of the date the permit is issued, is major for any pollutant for which the area in which the source would construct is designated as nonattainment.

b. The requirements contained in rule 567—31.20(455B) shall apply to each nonattainment pollutant that the source will emit or has the potential to emit in major amounts. In the case of a modification, the requirements shall apply to the significant net emissions increase of each nonattainment pollutant for which the source is major.

c. Particulate matter. If a major source or major modification is proposed to be constructed in an area designated nonattainment for particulate matter, then emission offsets must be achieved prior to startup.

If a major source or major modification is proposed to be constructed in an area designated attainment or unclassified for particulate matter, but the modeled (EPA-approved guideline model) worst case ground level particulate concentrations due to the major source or major modification in a designated particulate matter nonattainment area is equal to or greater than five micrograms per cubic meter (24-hour concentration), or one microgram per cubic meter (annual arithmetic mean), then emission offsets must be achieved prior to startup.

d. Sulfur dioxide. If a major source or major modification is proposed to be constructed in an area designated nonattainment for sulfur dioxide, then emission offsets must be achieved prior to startup.

If a major source or major modification is proposed to be constructed in an area designated attainment or unclassified for sulfur dioxide, but the modeled (EPA-approved guideline model) worst case ground level sulfur dioxide concentrations due to the major source or major modification in a designated sulfur dioxide nonattainment area is equal to or greater than 25 micrograms per cubic meter (three-hour concentration), five microgram per cubic meter (24-hour concentration), or one microgram per cubic meter (annual arithmetic mean), then emission offsets must be achieved prior to startup.

e. 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 a pollutant, such as a restriction on hours of operation, then the requirements of this rule shall apply to the source or modification as though construction had not yet commenced on the source or modification.

31.20(3) Emission offsets.

a. Emission offsets shall be obtained from the same source or other sources in the same nonattainment area, except that the required emissions reductions may be obtained from a source in another nonattainment area if:

(1) The other area, which must be nonattainment for the same pollutant, has an equal or higher nonattainment classification than the nonattainment area in which the source is located, and

(2) Emissions from such other nonattainment areas contribute to a violation of a national ambient air quality standard in the nonattainment area in which the proposed new or modified source would construct.

b. Emission offsets for any regulated air contaminant in the designated nonattainment area shall provide for reasonable further progress toward attainment of the applicable national ambient air quality standards and provide a positive net air quality benefit in the nonattainment area.

c. The increased emissions of any applicable nonattainment air pollutant allowed from the proposed new or modified source shall be offset by an equal or greater reduction, as applicable, in the total tonnage and impact of actual emissions, as stated in subrule 31.20(4), of such air pollutant from the same or other sources. For purposes of subrule 31.20(3), actual emissions shall be determined in accordance with subparagraphs 31.20(1) "n"(1) and (2).

d. All emissions reductions claimed as offset credit shall be federally enforceable prior to, or upon, the issuance of the permit required under this rule and shall be in effect by the time operation of the permitted new source or modification begins.

e. Proposals for emission offsets shall be submitted with the application for a permit for the major source or major modification. All approved emission offsets shall be made a part of the permit and shall be deemed a condition of expected performance of the major source or major modification.

31.20(4) Acceptable emission offsets.

a. *Equivalence.* The effect of the reduction of emissions must be measured or predicted to occur in the same area as the emissions of the major source or major modification. It can be assumed that, if the emission offsets are obtained from an existing source on the same premises or in the immediate vicinity of the major source or major modification and if the air contaminant disperses from substantially the same stack height, the emissions will be equivalent and may be offset. Otherwise, an adequate dispersion model must be used to predict the effect. If the reduction accomplished at the source is as specified in subrule 31.20(3) and if the effect of the reduction is measured or predicted to occur in the same area as the emissions of the major source or major modification, the effect of the reduction at the measured or predicted point does not have to exactly offset the effect of the major source or major modification.

b. Reserved.

c. *Control of uncontrolled existing sources.* If control equipment is proposed for a presently uncontrolled existing source for which controls are not required by rules, then credit may be allowed for any reduction below the source's potential to emit. The reduction shall be proposed at the time of permit application. Any such reductions which occurred prior to January 1, 1978, shall not be accepted for offsets.

d. *Greater control of existing sources.* If more effective control equipment for a source already in compliance with the SIP allowable level is proposed to offset the emissions of the major source or major modification in or affecting a nonattainment area, then the difference in the emissions between the actual level on January 1, 1978, and the new level can be credited for offsets. (This does not allow credit to be granted for any reductions in actual emissions required by the SIP subsequent to January 1, 1978.)

For example, if a cyclone that is being used to meet a SIP emission standard is emitting x_1 lbs/hr and if it is to be replaced by a bag filter emitting x_2 lbs/hr, an emission offset equal to $(x_1 - x_2)$ lbs/hr may be allowed toward the total required reduction.

e. *Fugitive dust offsets.* Credits may be allowed for permanent control of fugitive dust. EPA's "Technical Guidance for Control of Industrial Process Fugitive Particulate Emissions" (EPA-450/3-77-010, March 1977) shall be used as a guide to estimate reduction from fugitive dust controls on traditional sources. Traditional source means a source category for which a particulate emission standard has been established in 567—subrule 23.1(2), 567—paragraph 23.3(2) "a" or "b" or 567—23.4(455B). The emission factors shall be modified to reflect realistic reductions. This would correspond to a consideration of particles in the less than 3 micron size range and the effectiveness of the fugitive dust control method.

f. *Fuel switching credits.* Credit may be allowed for fuel switching provided there is a demonstration by the applicant that supplies of the cleaner fuel will be available to the applicant for a minimum of five years. The demonstration must include, as a minimum, a written contract with the fuel supplier that the fuel will not be interrupted. The permit for the existing source shall be amended to provide for maintaining those offsets resulting from the fuel switching before offset credit will be granted.

g. *Reduction credits.* Credit for an emissions reduction can be claimed to the extent that the Administrator and the department have not: (1) relied on it in issuing any permit under regulations approved pursuant to 40 CFR Parts 51 (amended through April 9, 1998), 55 (amended through August 4, 1997), 63 (amended through December 28, 1998), 70 (amended through November 26, 1997), or 71 (amended through October 22, 1997); (2) relied on it in demonstrating attainment or reasonable further progress; or (3) the reduction is not otherwise required under the Clean Air Act. Incidental emissions reductions which are not otherwise required under the Act shall be creditable as emissions reductions for such purposes if such emissions reductions meet the requirements of subrule 31.20(3).

h. *Derating of equipment.* If the emissions from a major source or major modification are proposed to be offset by reducing the operating capacity of another existing source, then credit may be allowed for this provided proper documentation (such as stack test results) showing the effect on emissions due to derating is submitted. The permit for the existing source must be amended to limit the operating capacity before offsets will be allowed.

i. *Shutdown or curtailment.*

(1) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours below baseline levels may be generally credited if such reductions are surplus, permanent, quantifiable, and federally enforceable, and if the area has an EPA-approved attainment plan. In addition, the shutdown or curtailment is creditable only if it occurred on or after the date specified for this purpose in the plan, and if such date is on or after the date of the most recent emissions inventory or attainment demonstration. However, in no event may credit be given for shutdowns which occurred prior to January 1, 1978. For purposes of this paragraph, the director may consider a prior shutdown or curtailment to have occurred after the date of its most recent emissions inventory, if the inventory explicitly includes as current existing emissions the emissions from such previously shutdown

or curtailed sources. The work force shall be notified of the proposed curtailment or shutdown by the source owner or operator.

(2) The reductions described in subparagraph 31.20(4)“i”(1) may be credited in the absence of any approved attainment demonstration only if the shutdown or curtailment occurred on or after the date the new source permit application is filed, or, if the applicant can establish that the proposed new source is a replacement for the shutdown or curtailed source, and the cutoff date provisions in 31.20(4)“i”(1) are observed.

j. External emission offsets. If the emissions from the major source or major modification are proposed to be offset by reduction of emissions from a source not owned or operated by the owner or operator of the major source or major modification, then credit may be allowed for such reductions provided the external source’s permit is amended to require the reduced emissions or a consent order is entered into by the department and the existing source. Consent orders for external offsets must be incorporated into the SIP and be approved by EPA before offset credit may be granted.

31.20(5) Banking of offsets in nonattainment areas. If the offsets in a given situation are more than required by 31.20(3), the amount of offsets that is greater than required may be banked for the exclusive use or control of the person achieving the reduction, subject to the limitations of this subrule. If the person achieving the reduction is not an individual, an authorized representative of the person must release control of the banked emissions in writing before another person, other than the commission, can utilize the banked emissions. The banking of offsets creates no property right in those offsets. The commission may proportionally reduce or cancel banked offsets if it is determined that reduction or cancellation is necessary to demonstrate reasonable further progress or to attain the ambient air quality standards. Prior to reduction or cancellation, the commission shall notify the person who banked the offsets.

31.20(6) Control technology review.

a. Lowest achievable emission rate. A new or modified major source in a nonattainment area shall comply with the lowest achievable emission rate.

b. For phased construction projects, the determination of the lowest achievable emissions rate shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to the 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 the LAER for the source.

c. State implementation plan, new source performance standards, and emission standards for hazardous air pollutants. A major stationary source or major modification shall meet each applicable emissions limitation under the state implementation plan and each applicable emissions standard of performance under 40 CFR Parts 60 (amended through November 24, 1998), 61 (amended through October 14, 1997), and 63 (amended through December 28, 1998).

31.20(7) Compliance of existing sources. If a new major source or major modification is subject to rule 567—31.20(455B), then all major sources owned or operated by the applicant (or by any entity controlling, controlled by, or under common control by the applicant) in Iowa shall be either in compliance with applicable emission standards or under a compliance schedule approved by the commission.

31.20(8) Alternate site analysis. The permit application shall contain a submittal of an alternative site analysis. Such submittal shall include analysis of alternative sites, sizes, production processes and environmental control techniques for the proposed source. The analysis must demonstrate that benefits of the proposed source significantly outweigh the environmental and social costs that would result from its location, construction or modification. Such analysis shall be completed prior to permit issuance.

31.20(9) Additional conditions for permit approval.

a. For the air pollution control requirements applicable to subrule 31.20(6), the permit shall require the source to monitor, keep records, and provide reports necessary to determine compliance with and deviations from applicable requirements.

b. The state shall not issue the permit if the Administrator has determined that the applicable implementation plan is not being adequately implemented for the nonattainment area in which the proposed stationary source or modification is to be constructed.

31.20(10) *Public availability of information.* No permit shall be issued until notice and opportunity for public comment are made available in accordance with the procedure described in 40 CFR 51.161 (as amended through November 7, 1986).

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