

AGENCY OF NATURAL RESOURCES

Waterbury, Vermont

ENVIRONMENTAL PROTECTION REGULATIONS

CHAPTER 5

AIR POLLUTION CONTROL

Subchapter V. Review of New Air Contaminant Sources

Section 5-502 Major Stationary Sources and Major Modifications

(1) Applicability

- (a) This section applies to all major stationary sources and major modifications which are constructed subsequent to July 1, 1979 and are subject to review under Section 5-501 herein.
- (b) Where a source is constructed or modified in increments
 - (i) which individually are not subject to review under this section,
 - (ii) which have not previously been aggregated for purposes of their review under this section, and
 - (iii) which are not a part of a program of construction or modification in planned incremental phases previously approved by the Secretary.

All such increments shall be added together for determining the applicability of this section.

(2) Prohibition

No person shall initiate construction of any major stationary source or major modification until the applicable requirements of this section have been complied with and a permit approving construction has been issued in accordance with Section 5-501 herein.

(3) Most Stringent Emission Rate

- (a)
 - (i) Each major stationary source shall apply control technology adequate to achieve the most stringent emission rate with respect to those air contaminants for which it would have significant allowable emissions.
 - (ii) Each major modification shall apply control technology adequate to achieve the most stringent emission rate with respect to any air contaminant for which there would be a significant increase in actual emissions at the source, but only for those proposed physical or operational changes which would contribute to increased emissions of the air contaminant.
 - (b) The “most stringent emission rate (MSER)” means a rate of emissions which the Secretary, on a case-by-case basis, determines is achievable for a source based on the lowest emission rate achieved in practice by such source category of source, unless the source demonstrates it cannot achieve such rate due to economic impacts and costs. Costs of achievement of MSER will be accorded less weight for sources or modifications locating in nonattainment areas than for sources or modifications locating in attainment areas for the applicable air contaminant. In no event shall application of MSER result in emissions of any contaminants in excess of and Federal emission standard or any emission standard contained in these regulations.
 - (c) If the Secretary determines that imposition of an emission standard is infeasible, a design, equipment, work practice or operational standard, or combination thereof, may be prescribed instead as constituting MSER.
 - (d) Any source or modification subject to this section shall submit information at the time it applies for approval to construct to establish that the most stringent emission rate will be achieved.
- (4) Air Quality Impact Evaluation
 - (a) A source or modification subject to this section with respect to any air contaminant other than greenhouse gases, shall submit to the Secretary an air quality impact evaluation at the time it applies for approval to construct under Section 5-501 herein.
 - (b) Ambient Air Quality Standards review: The evaluation shall demonstrate that the increase in allowable emissions will not cause violations of any applicable ambient air quality standard in any area, and will not significantly contribute to a violation of any applicable ambient air quality standard in any area that does not or would not meet the applicable ambient air quality standard for the above air

contaminants. A source or modification will be considered to significantly contribute to, a violation of any ambient air quality standard for the above air contaminants if the increase in the allowable emissions from the source or modification will cause any increase in ambient concentrations of the above air contaminants in any area that does not or would not meet the applicable ambient air quality standard in excess of any of the levels of significant impact shown in Table 3 herein. If a source or modification will significantly contribute to such a violation, the evaluation shall demonstrate that the source or modification will comply with the requirements of paragraph (6) herein.

- (c) The evaluation shall demonstrate that, as of the source's or modification's start-up date, the increase in allowable emissions, in conjunction with all other applicable emissions increases or reductions, will not cause or contribute to any increase in ambient concentrations exceeding the remaining available prevention of significant deterioration (PSD) increment for the specified air contaminants. The demonstration shall be done in accordance with the relevant definitions and applicable requirements contained in 40 CFR § 51.166 as of July 1, 2016.
 - (d) The evaluation shall demonstrate that the increase in allowable emissions will not cause an adverse impact on visibility in any sensitive area or in any Class I Federal area and will not interfere with reasonable progress toward the remedying of existing man-made visibility impairment in a sensitive area. Said demonstration shall be submitted to the Agency and the appropriate Federal Land Manager at least 60 days prior to the close of the public comment period on the source or modification.
 - (e) Class I Federal Area review: The evaluation shall demonstrate that the increase in allowable emissions will not cause an adverse impact on visibility or any other Air Quality Related Value in any Class I Federal area.
 - (f) Any air quality impact evaluation or modeling required by this section shall be prepared in accordance with procedures acceptable to the Secretary and with Section 5-406 of these regulations. The evaluation shall exclude the effect of that portion of the height of any stack which exceeds good engineering practice and the effect of any other dispersion technique.
- (5) Increment Allocation

- (a) The remaining available PSD increment, shall be determined in accordance with the relevant definitions and applicable requirements contained in 40 CFR § 51.166 as of July 1, 2016.
 - (b) Once a source has demonstrated that it will comply with the determination made under subsection (5)(a) above, the appropriate portions of the PSD increments shall be allocated in accordance with procedures established by the Secretary, which may provide for local or regional participation.
- (6) Emission Reductions
- (a) The Secretary shall not issue an order approving construction of any source or modification subject to this section if the source or modification is unable to demonstrate, as required under Paragraph (4), that the increase in allowable emissions from it will not significantly contribute to a violation of any applicable ambient air quality standard unless, prior to issuance of any such order:
 - (i) the source owner or operator secures legally binding offsetting emission reductions, not otherwise to be utilized as part of the State's attainment strategies, of the air contaminant contributing to such a violation from existing sources located in or impacting on the same area (whether or not under the same ownership) such as to provide a net emission reduction acceptable to the Secretary, and
 - (ii) the source owner or operator certifies that all existing sources of the source owner located in the State are in compliance with all applicable rules or are meeting all steps of any compliance schedules contained in any administrative orders or court decrees.
 - (b) Regardless of whether a source or modification is subject to the requirements of paragraph (6)(a) of this section, the Secretary shall not issue a permit approving construction of any source or modification of nitrogen oxides or volatile organic compounds (VOCs) subject to this section and meeting the federal definition of major stationary source or major modification contained in 40 CFR §51.165 as applicable to the Ozone Transport Region unless, prior to issuance of such permit, the owner or operator of said source shall:
 - (i) Secure legally binding offsetting emission reductions (not otherwise required by law) of nitrogen oxides or VOCs, as applicable, from existing sources;

- (ii) Obtain an offset ratio of a minimum of 1.15:1; and
 - (iii) Certify that all existing sources of the source owner located in the state are subject to emissions limitations and are in compliance, or on an enforceable schedule for compliance with all applicable emissions limitations and standards.
- (c) Emission reductions to levels below the applicable emission standards contained in these regulations may be reserved for future growth and utilized in applications under this section to satisfy the requirements of paragraph (6)(a) and (b) above, with the approval of the Secretary, provided that:
 - (i) such emission reductions shall be permanent reductions in actual emissions, and
 - (ii) only emission reductions achieved after August 7, 1977, or within five years previous to the date of any application under this section, whichever is more recent, may be utilized.
- (d) Incinerators designed or operated primarily for the purpose of producing heat or power from municipal solid waste may be exempted by the Secretary from paragraph (6)(a)(i) above, if the source owner or operator demonstrates that:
 - (i) he made his best efforts to secure emission offsets and that such efforts were unsuccessful,
 - (ii) he has secured all available emission offsets, and
 - (iii) he will continue to seek the necessary emission offsets.
- (7) Emission Reduction Credits for Nitrogen Oxides
 - (a) The owner or operator of a source at which a reduction in emissions of nitrogen oxides has occurred may apply to the Secretary for certification of the reduction as an emission reduction credit. Once certified by the Secretary, an ERC may be used to offset increased emissions from new or modified sources or for other purposes approved by the Secretary.
 - (b) * * *1

- (c) For emission reductions created prior to the effective date of this section, an application for certification shall be submitted within nine months from the effective date of this section. For emission reductions created after the effective date of this section, an application for certification shall be submitted within 18 months after the emission reduction occurs.
- (d) Emission reductions may be certified as ERC's only after the reductions have actually occurred.
- (e) In order to confirm emission reductions claimed in conjunction with an application for ERC certification, the Secretary may require the submission of production, fuel use or other records or emissions testing or the use of continuous emissions monitoring or other appropriate means of measurement. The same or an equivalent method of measurement shall be used to quantify emissions both before and after the reduction.

(8) Ambient Air Quality Monitoring

- (a) A major stationary source or major modification required to submit an air quality impact evaluation shall include in such evaluation an analysis of ambient air monitoring data for any attainment areas impacted by each of the following air contaminants;
 - (i) For the source, each contaminant for which it would have significant allowable emissions;
 - (ii) For the modification, each contaminant for which it would result in a significant increase in actual emissions.
- (b) Ambient monitoring data shall be based on sampling conducted for a time period of at least one year immediately preceding submission of any application for approval to construct such a source or modification. Ambient monitoring data collected for a time period of less than one year, but not less than four (4) months, or for a time period other than immediately preceding submission of any such application may be acceptable if such data is adequate for determining whether the source or modification will cause a violation of any applicable ambient air quality standard or consume more than the remaining available PSD increment.
- (c) Subparagraphs (a) and (b) above shall not apply to any air contaminant for which no ambient air quality standard has been adopted.

(9) Alternative Site Analysis

Any source or modification subject to this section that would be constructed in an area designated as non-attainment for a pollutant for which the source or modification is major, and any major source or modification that is major for ozone and/or precursors to ozone, shall conduct an analysis of alternative sites, sizes, production processes and environmental control techniques for such proposed source that demonstrates that the benefits for the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.

* * *1 Subsection 5-502(7)(b) was previously approved into the Vermont State Implementation Plan on August 4, 1997 (see 62 FR 41867), but subsequently removed by EPA's August 1, 2016 rulemaking (see 81 FR 50342).