§ 76.10 Alternative emission limitations.

(a) General provisions. (1) The designated representative of an affected unit that is not an early election unit pursuant to §76.8 and cannot meet the applicable emission limitation in §76.5, 76.6, or 76.7 using, for Group 1 boilers, either low NO\(_X\) burner technology or an
alternative technology in accordance with paragraph (e)(11) of this section, or, for tangentially fired boilers, separated overfire air, or, for Group 2 boilers, the technology on which the applicable emission limitation is based may petition the permitting authority for an alternative emission limitation less stringent than the applicable emission limitation.

(2) In order for the unit to qualify for an alternative emission limitation, the designated representative shall demonstrate that the affected unit cannot meet the applicable emission limitation in §76.5, 76.6, or 76.7 based on a showing, to the satisfaction of the Administrator, that:

(i)(A) For a tangentially fired boiler, the owner or operator has either properly installed low NO\textsubscript{X} burner technology or properly installed separated overfire air; or

(B) For a dry bottom wall-fired boiler (other than a unit applying cell burner technology), the owner or operator has properly installed low NO\textsubscript{X} burner technology; or

(C) For a Group 1 boiler, the owner or operator has properly installed an alternative technology (including but not limited to reburning, selective non-catalytic reduction, or selective catalytic reduction) that achieves NO\textsubscript{X} emission reductions demonstrated in accordance with paragraph (e)(11) of this section; or

(D) For a Group 2 boiler, the owner or operator has properly installed the appropriate NO\textsubscript{X} emission control technology on which the applicable emission limitation in §76.6 is based; and

(ii) The installed NO\textsubscript{X} emission control system has been designed to meet the applicable emission limitation in §76.5, 76.6, or 76.7; and

(iii) For a demonstration period of at least 15 months or other period of time, as provided in paragraph (f)(1) of this section:

(A) The NO\textsubscript{X} emission control system has been properly installed and properly operated according to specifications and procedures designed to minimize the emissions of NO\textsubscript{X} to the atmosphere;

(B) Unit operating data as specified in this section show that the unit and NO\textsubscript{X} emission control system were operated in accordance with the bid and design specifications on which the design of the NO\textsubscript{X} emission control system was based; and

(C) Unit operating data as specified in this section, continuous emission monitoring data obtained pursuant to part 75 of this chapter, and the test data specific to the NO\textsubscript{X} emission control system show that the unit could not meet the applicable emission limitation in §76.5, 76.6, or 76.7.

(b) Petitioning process. The petitioning process for an alternative emission limitation shall consist of the following steps:

(1) Operation during a period of at least 3 months, following the installation of the NO\textsubscript{X} emission control system, that shows that the specific unit and the NO\textsubscript{X} emission control system was unable to meet the applicable emissions limitation under §76.5, 76.6, or 76.7 and was operated in accordance with the operating conditions upon which the design of the NO\textsubscript{X} emission control system was based and with vendor specifications and procedures;

(2) Submission of a petition for an alternative emission limitation demonstration period as specified in paragraph (d) of this section;

(3) Operation during a demonstration period of at least 15 months, or other period of time as provided in paragraph (f)(1) of this section, that demonstrates the inability of the specific unit to meet the applicable emissions limitation under §76.5, 76.6, or 76.7 and the minimum NO\textsubscript{X} emissions rate that the specific unit can achieve during long-term load dispatch operation; and

(4) Submission of a petition for a final alternative emission limitation as specified in paragraph (e) of this section.

(c) Deadlines—(1) Petition for an alternative emission limitation demonstration period. The designated representative of the unit shall submit a petition for an alternative emission limitation demonstration period to the permitting authority after the unit has been operated for at least 3 months after installation of the NO\textsubscript{X} emission control system required under paragraph (a)(2) of this section and by the following deadline:

496
(i) For units that seek to have an alternative emission limitation demonstration period apply during all or part of calendar year 1996, or any previous calendar year by the later of:

(A) 120 days after startup of the NO\textsubscript{X} emission control system, or

(B) May 1, 1996.

(ii) For units that seek an alternative emission limitation demonstration period beginning in a calendar year after 1996, not later than:

(A) 120 days after January 1 of that calendar year, or

(B) 120 days after startup of the NO\textsubscript{X} emission control system if the unit is not operating at the beginning of that calendar year.

(2) Petition for a final alternative emission limitation. Not later than 90 days after the end of an approved alternative emission limitation demonstration period for the unit, the designated representative of the unit may submit a petition for an alternative emission limitation to the permitting authority.

(3) Renewal of an alternative emission limitation. In order to request continuation of an alternative emission limitation, the designated representative must submit a petition to renew the alternative emission limitation on the date that the application for renewal of the source’s Acid Rain permit containing the alternative emission limitation is due.

(d) Contents of petition for an alternative emission limitation demonstration period. The designated representative of an affected unit that has met the minimum criteria under paragraph (a) of this section and that has been operated for a period of at least 3 months following the installation of the required NO\textsubscript{X} emission control system may submit to the permitting authority a petition for an alternative emission limitation demonstration period. In the petition, the designated representative shall provide the following information in a format prescribed by the Administrator:

(1) Identification of the unit;

(2) The type of NO\textsubscript{X} control technology installed (e.g., low NO\textsubscript{X} burner technology, selective noncatalytic reduction, selective catalytic reduction, reburning);

(3) If an alternative technology is installed, the time period (not less than 6 consecutive months) prior to installation of the technology to be used for the demonstration required in paragraph (e)(11) of this section;

(4) Documentation as set forth in §76.14(a)(1) showing that the installed NO\textsubscript{X} emission control system has been designed to meet the applicable emission limitation in §76.5, 76.6, or 76.7 and that the system has been properly installed according to procedures and specifications designed to minimize the emissions of NO\textsubscript{X} to the atmosphere;

(5) The date the unit commenced operation following the installation of the NO\textsubscript{X} emission control system or the date the specific unit became subject to the emission limitations of §76.5, 76.6, or 76.7, whichever is later;

(6) The dates of the operating period (which must be at least 3 months long);

(7) Certification by the designated representative that the owner(s) or operator operated the unit and the NO\textsubscript{X} emission control system during the operating period in accordance with: Specifications and procedures designed to achieve the maximum NO\textsubscript{X} reduction possible with the installed NO\textsubscript{X} emission control system or the applicable emission limitation in §76.5, 76.6, or 76.7; the operating conditions upon which the design of the NO\textsubscript{X} emission control system was based; and vendor specifications and procedures;

(8) A brief statement describing the reason or reasons why the unit cannot achieve the applicable emission limitation in §76.5, 76.6, or 76.7;

(9) A demonstration period plan, as set forth in §76.14(a)(2);

(10) Unit operating data and quality-assured continuous emission monitoring data (including the specific data items listed in §76.14(a)(3) collected in accordance with part 75 of this chapter during the operating period) and demonstrating the inability of the specific unit to meet the applicable emission limitation in §76.5, 76.6, or 76.7 on an annual average basis while operating as certified under paragraph (d)(7) of this section;

(11) An interim alternative emission limitation, in lb/mmBtu, that the unit can achieve during a demonstration period of at least 15 months. The interim
alternative emission limitation shall be derived from the data specified in paragraph (d)(10) of this section using methods and procedures satisfactory to the Administrator;

(12) The proposed dates of the demonstration period (which must be at least 15 months long);

(13) A report which outlines the testing and procedures to be taken during the demonstration period in order to determine the maximum NO\textsubscript{X} emission reduction obtainable with the installed system. The report shall include the reasons for the NO\textsubscript{X} emission control system’s failure to meet the applicable emission limitation, and the tests and procedures that will be followed to optimize the NO\textsubscript{X} emission control system’s performance. Such tests and procedures may include those identified in §76.15 as appropriate.

(14) The special provisions at paragraph (g)(1) of this section.

(e) Contents of petition for a final alternative emission limitation. After the approved demonstration period, the designated representative of the unit may petition the permitting authority for an alternative emission limitation. The petition shall include the following elements in a format prescribed by the Administrator:

(1) Identification of the unit;

(2) Certification that the owner(s) or operator operated the affected unit and the NO\textsubscript{X} emission control system during the demonstration period in accordance with: specifications and procedures designed to achieve the maximum NO\textsubscript{X} reduction possible with the installed NO\textsubscript{X} emission control system or the applicable emissions limitation in §76.5, 76.6, or 76.7; the operating conditions (including load dispatch conditions) upon which the design of the NO\textsubscript{X} emission control system was based; and vendor specifications and procedures.

(3) Certification that the owner(s) or operator have installed in the affected unit all NO\textsubscript{X} emission control systems, made any operational modifications, and completed any planned upgrades and/or maintenance to equipment specified in the approved demonstration period plan for optimizing NO\textsubscript{X} emission reduction performance, consistent with the demonstration period plan and the proper operation of the installed NO\textsubscript{X} emission control system. Such certification shall explain any differences between the installed NO\textsubscript{X} emission control system and the equipment configuration described in the approved demonstration period plan.

(4) A clear description of each step or modification taken during the demonstration period to improve or optimize the performance of the installed NO\textsubscript{X} emission control system.

(5) Engineering design calculations and drawings that show the technical specifications for installation of any additional operational or emission control modifications installed during the demonstration period.

(6) Unit operating and quality-assured continuous emission monitoring data (including the specific data listed in §76.14(b)) collected in accordance with part 75 of this chapter during the demonstration period and demonstrating the inability of the specific unit to meet the applicable emission limitation in §76.5, 76.6, or 76.7 on an annual average basis while operating in accordance with the certification under paragraph (e)(2) of this section.

(7) A report (based on the parametric test requirements set forth in the approved demonstration period plan as identified in paragraph (d)(13) of this section), that demonstrates the unit was operated in accordance with the operating conditions upon which the design of the NO\textsubscript{X} emission control system was based and describes the reason or reasons for the failure of the installed NO\textsubscript{X} emission control system to meet the applicable emission limitation in §76.5, 76.6, or 76.7 on an annual average basis.

(8) The minimum NO\textsubscript{X} emission rate, in lb/mmBtu, that the affected unit can achieve on an annual average basis with the installed NO\textsubscript{X} emission control system. This value, which shall be the requested alternative emission limitation, shall be derived from the data specified in this section using methods and procedures satisfactory to the Administrator and shall be the lowest annual emission rate the unit can achieve with the installed NO\textsubscript{X} emission control system;

(9) All supporting data and calculations documenting the determination
Environmental Protection Agency § 76.10

of the requested alternative emission limitation and its conformance with the methods and procedures satisfactory to the Administrator;

(10) The special provisions in paragraph (g)(2) of this section.

(11) In addition to the other requirements of this section, the owner or operator of an affected unit with a Group 1 boiler that has installed an alternative technology in addition to or in lieu of low NOX burner technology and cannot meet the applicable emission limitation in §76.5 shall demonstrate, to the satisfaction of the Administrator, that the actual percentage reduction in NOX emissions (lbs/mmBtu), on an annual average basis is greater than 65 percent of the average annual NOX emissions prior to the installation of the NOX emission control system. The percentage reduction in NOX emissions shall be determined using continuous emissions monitoring data for NOX taken during the time period (under paragraph (d)(3) of this section) prior to the installation of the NOX emission control system and during long-term load dispatch operation of the specific boiler.

(f) Permitting authority’s action—(1) Alternative emission limitation demonstration period.

(i) The permitting authority may approve an alternative emission limitation demonstration period and demonstration period plan, provided that the requirements of this section are met to the satisfaction of the permitting authority. The permitting authority shall disapprove a demonstration period if the requirements of paragraph (a)(2) of this section were not met during the operating period.

(ii) If the demonstration period is approved, the permitting authority will include, as part of the demonstration period, the 4 month period prior to submission of the application in the demonstration period.

(iii) The alternative emission limitation demonstration period will authorize the unit to emit at a rate not greater than the interim alternative emission limitation during the demonstration period on or after January 1, 1996 for Phase I units and the applicable date established in §76.6 or 76.7 for Phase II units, and until the date that the Administrator approves or denies a final alternative emission limitation.

(iv) After an alternative emission limitation demonstration period is approved, if the designated representative requests an extension of the demonstration period in accordance with paragraph (g)(1)(i)(B) of this section, the permitting authority may extend the demonstration period by administrative amendment (under §72.83 of this chapter) to the Acid Rain permit.

(v) The permitting authority shall deny the demonstration period if the designated representative cannot demonstrate that the unit met the requirements of paragraph (a)(2) of this section. In such cases, the permitting authority shall require that the owner or operator operate the unit in compliance with the applicable emission limitation in §76.5, 76.6, or 76.7 for the period preceding the submission of the application for an alternative emission limitation demonstration period, including the operating period, if such periods are after the date on which the unit is subject to the standard limit under §76.5, 76.6, or 76.7.

(2) Alternative emission limitation.

(i) If the permitting authority determines that the requirements in this section are met, the permitting authority will approve an alternative emission limitation and issue or revise an Acid Rain permit to apply the approved limitation, in accordance with subparts F and G of part 72 of this chapter. The permit will authorize the unit to emit at a rate not greater than the approved alternative emission limitation, starting the date the permitting authority approves or denies an Acid Rain permit to approve an alternative emission limitation.

(ii) If a permitting authority disapproves an alternative emission limitation under paragraph (a)(2) of this section, the owner or operator shall operate the affected unit in compliance with the applicable emission limitation in §76.5, 76.6, or 76.7 (unless the unit is participating in an approved averaging plan under §76.11) beginning on the date the permitting authority revises an Acid Rain permit to disapprove an alternative emission limitation.

(3) Alternative emission limitation renewal.

(i) If, upon review of a petition

499
to renew an approved alternative emission limitation, the permitting authority determines that no changes have been made to the control technology, its operation, the operating conditions on which the alternative emission limitation was based, or the actual NO\textsubscript{X} emission rate, the alternative emission limitation will be renewed.

(ii) If the permitting authority determines that changes have been made to the control technology, its operation, the fuel quality, or the operating conditions on which the alternative emission limitation was based, a petition for an alternative emission limitation demonstration period that meets the requirements of paragraph (d) of this section using a new demonstration period.

(g) Special provisions—(1) Alternative emission limitation demonstration period—(i) Emission limitations. (A) Each unit with an approved alternative emission limitation demonstration period shall comply with the interim emission limitation specified in the unit's permit beginning on the effective date of the demonstration period specified in the permit and, if a timely petition for a final alternative emission limitation is submitted, extending until the date on which the permitting authority issues or revises an Acid Rain permit to approve or disapprove an alternative emission limitation. If a timely petition is not submitted, then the unit shall comply with the standard emission limit under §76.5, 76.6, or 76.7 beginning on the date the petition was required to be submitted under paragraph (c)(2) of this section.

(B) A unit with an approved alternative emission limitation demonstration period shall install all NO\textsubscript{X} emission control systems, make any operational modifications, and complete any upgrades and maintenance to equipment specified in the approved demonstration period plan for optimizing NO\textsubscript{X} emission reduction performance.

(C) When the owner or operator identifies boiler or NO\textsubscript{X} emission control system operating modifications that would produce higher NO\textsubscript{X} emission reductions, enabling the affected unit to comply with, or bring its emission rate closer to, the applicable emission limitation under §76.5, 76.6, or 76.7, the designated representative shall submit an administrative amendment under §72.83 of this chapter to revise the unit's Acid Rain permit and demonstration period plan to include such modifications.

(ii) Testing requirements. A unit with an approved alternative emission limitation demonstration period shall monitor in accordance with part 75 of this chapter and shall conduct all tests required under the approved demonstration period plan.

(2) Final alternative emission limitation—(i) Emission limitations. (A) Each unit with an approved alternative emission limitation shall comply with the alternative emission limitation specified in the unit's permit beginning on the date specified in the permit as
issued or revised by the permitting authority to apply the final alternative emission limitation.

(B) If the approved interim or final alternative emission limitation applies to a unit for part, but not all, of a calendar year, the unit shall determine compliance for the calendar year in accordance with the procedures in §76.13(a).


§ 76.11 Emissions averaging.

(a) General provisions. In lieu of complying with the applicable emission limitation in §76.5, 76.6, or 76.7, any affected units subject to such emission limitation, under control of the same owner or operator, and having the same designated representative may average their NO\textsubscript{X} emissions under an averaging plan approved under this section.

(1) Each affected unit included in an averaging plan for Phase I shall be a Phase I unit with a Group 1 boiler subject to an emission limitation in §76.5 during all years for which the unit is included in the plan.

(i) If a unit with an approved NO\textsubscript{X} compliance extension is included in an averaging plan for 1996, the unit shall be treated, for the purposes of applying Equation 1 in paragraph (a)(6) of this section and Equation 2 in paragraph (d)(1)(ii)(A) of this section, as subject to the applicable emissions limitation under §76.5 for the entire year 1996.

(ii) A Phase II unit approved for early election under §76.8 shall not be included in an averaging plan for Phase I.

(2) Each affected unit included in an averaging plan for Phase II shall be a boiler subject to an emission limitation in §76.5, 76.6, or 76.7 for all years for which the unit is included in the plan.

(3) Each unit included in an averaging plan shall have an alternative contemporaneous annual emission limitation (lb/mmBtu) and can only be included in one averaging plan.

(4) Each unit included in an averaging plan shall have a minimum allowable annual heat input value (mmBtu), if it has an alternative contemporaneous annual emission limitation more stringent than that unit’s applicable emission limitation under §76.5, 76.6, or 76.7, and a maximum allowable annual heat input value, if it has an alternative contemporaneous annual emission limitation less stringent than that unit’s applicable emission limitation under §76.5, 76.6, or 76.7.

(5) The Btu-weighted annual average emission rate for the units in an averaging plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in §76.5, 76.6, or 76.7.

(6) In order to demonstrate that the proposed plan is consistent with paragraph (a)(5) of this section, the alternative contemporaneous annual emission limitations and annual heat input values assigned to the units in the proposed averaging plan shall meet the following requirement:

\[
\frac{\sum_{i=1}^{n}(R_{Li} \times H_{i}^L)}{\sum_{i=1}^{n}H_{i}^L} \leq \frac{\sum_{i=1}^{n}(R_{ii} \times H_{i}^I)}{\sum_{i=1}^{n}H_{i}^I} \quad \text{ (Equation 1)}
\]

where:

\( R_{Li} \) = Alternative contemporaneous annual emission limitation for unit 1, lb/mmBtu, as specified in the averaging plan;

\( R_{ii} \) = Applicable emission limitation for unit 1, lb/mmBtu, as specified in §76.5, 76.6, or 76.7 except that for early election units, which may be included in an averaging plan only on or after January 1, 2000, \( R_{ii} \) shall equal the most stringent applicable emission limitation under §76.5 or 76.7;