



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JUN 20 2001

OFFICE OF  
AIR AND RADIATION

Katheryn B. Curtis  
Alternate Designated Representative  
Dominion Generation  
5000 Dominion Boulevard  
Glen Allen, VA 23060

Re: Petition for Alternative Deadline for Monitor Certification for Dominion's Altavista, Hopewell, and Southampton Plants

Dear Ms. Curtis:

EPA has reviewed the April 20, 2001 petition, as amended on June 14, 2001, under §75.66(a), in which Dominion Generation ("Dominion") requested an extension of the deadline for certifying continuous emission monitoring systems (CEMS) in accordance with part 75 at the Altavista, Hopewell, and Southampton power stations ("Altavista", "Hopewell", and "Southampton") in Virginia. As discussed below, EPA grants Dominion, with certain conditions, an extension until September 20, 2001 to comply with the part 75 monitoring requirements at these three facilities. Further, EPA approves Dominion's request to use the calendar quarter in which the certification tests of the monitoring systems are completed as the reference point for determining when subsequent routine quality assurance tests of the monitoring systems must begin.

Background

Altavista, Hopewell, and Southampton were formerly owned by Louisville Gas & Electric (LG&E), and each includes two spreader stoker coal-fired units. Each unit is equipped with scrubbers to control sulfur dioxide (SO<sub>2</sub>) emissions, and two of the units (Altavista and Hopewell) use selective non-catalytic reduction (SNCR) to control nitrogen oxides (NO<sub>x</sub>) emissions. Dominion stated that, prior to March 23, 2001, these plants qualified as independent power production facilities (as defined in §72.2) and were exempt under §72.6(b)(6) from the requirements of the Acid Rain Program. According to Dominion, the plants no longer qualified as independent power production facilities when Dominion acquired them on March 23, 2001. Dominion also stated that part 75 requires certification of CEMS at the units at the plants within 90 days after March 23, 2001, i.e., by June 20, 2001. See 40 CFR §75.4(e)(2).

Dominion states that, as soon as it became aware of the possibility of acquiring these plants, steps were taken to assess the existing CEMS at each plant. Dominion concluded that, although the existing CEMS meet the requirements of part 60, they were in poor condition for reliable future operation under part 60, would not satisfy part 75 requirements, and would have to be replaced. Dominion began the engineering and design for the replacement equipment on January 19, 2001 in order to expedite installation of the required CEMS. Dominion entered into binding procurement agreements before the acquisition of the plants was finalized.

Despite these efforts, the CEMS manufacturers indicated that the necessary equipment could not be delivered until May, 2001. Dominion estimated that approximately twelve weeks after delivery of the CEMS equipment would be required to start up, calibrate and test the monitoring systems. Therefore, the projected date of completion of the certification testing of the new CEMS was late August, 2001. Dominion's April 20, 2001 petition requested a CEMS certification deadline extension to August 20, 2001. However, on June 14, 2001, Dominion submitted an amendment to the April 20, 2001 petition, requesting an additional extension of the certification deadline to September 20, 2001 because the CEMS manufacturers indicated that equipment delivery would be delayed until July, 2001.

EPA notes that, although Dominion stated that Altavista, Hopewell, and Southampton were exempt under §72.6(b)(6) until March 23, 2001, Dominion has not provided any support (e.g., copies of the qualified power purchase commitments) for this claim. Consequently, EPA cannot determine at this time whether the units really were exempt prior to March 23, 2001. EPA is assuming, solely for purposes of addressing at this time Dominion's request concerning monitor certification, that the units were exempt before March 23, 2001. EPA will address separately the issue of whether the units were actually exempt and at that time will also address the effect, if any, of EPA's resolution of that issue on the determinations in this letter. Moreover, EPA's approval of a new September 20, 2001 monitor certification deadline for Dominion will not cure, or have any other effect on, violations (if any) that may have occurred before Dominion's March 23, 2001 acquisition of the units.

#### EPA's Determinations

EPA agrees that Dominion should be required to certify CEMS at Altavista, Hopewell, and Southampton by September 20, 2001. This is appropriate because Dominion recently acquired these plants, found that the existing monitoring systems were inadequate and new monitoring systems meeting part 75 requirements had to be obtained, and made good faith efforts to obtain the required monitoring and data handling equipment in a timely manner.

EPA therefore approves, with certain conditions, a CEMS certification deadline of September 20, 2001 for Altavista, Hopewell, and Southampton. EPA further approves Dominion's request to use the quarter in which the certification tests are completed as the reference point for determining when the routine quality assurance tests required under Appendix B of part 75 must begin. See 40 CFR part 75, appendix B, sections 2.2 and 2.3.

The September 20, 2001 CEMS certification deadline is conditioned on Dominion reporting substitute data to EPA, starting no later than June 21, 2001 and continuing until the required part 75 CEMS have been provisionally certified. The June 21, 2001 date for commencement of emission data reporting is based on the assumption that Altavista, Hopewell, and Southampton were exempt from the Acid Rain Program until March 23, 2001. If EPA subsequently determines that this assumption is incorrect and that the plants were subject to the Acid Rain Program on an earlier date, emission data reporting may be required to commence earlier than June 21, 2001, and EPA will notify Dominion of any such earlier date when EPA issues a final determination concerning the applicability of the §72.6(b)(6) exemption to the plants. The requirements for the emission data reporting are as follows:

1. For each operating hour in the time period starting no later than June 21, 2001<sup>1</sup> and continuing until the required part 75 CEMS have been provisionally certified, Dominion shall report for all units at the three plants: the maximum potential SO<sub>2</sub> concentration, determined according to section 2.1.1.1 of appendix A of part 75 ; the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A; the maximum potential NO<sub>x</sub> emission rate, as defined in section 2.1.2.1 of appendix A; and the maximum potential CO<sub>2</sub> concentration, as defined in section 2.1.3.1 of appendix A. As provided in section 2.1.2.1 of appendix A, the maximum potential NO<sub>x</sub> emission rate may be based on either: a maximum potential NO<sub>x</sub> concentration of 675 ppm for coal-fired stoker boilers from Table 2-1 in appendix A; or a maximum potential NO<sub>x</sub> concentration derived from 720 hours of quality-assured part 75 CEMS data (in accordance with section 2.1.2.1(e)).
2. (a) Notwithstanding the requirements of paragraph 1 above, Dominion may, as an alternative to reporting the maximum potential SO<sub>2</sub> concentration, report the “maximum controlled SO<sub>2</sub> concentration” for any hour for which proper operation of the add-on SO<sub>2</sub> emission controls (i.e., SO<sub>2</sub> scrubbers) is documented. The “maximum controlled SO<sub>2</sub> concentration” shall equal the highest, hourly average SO<sub>2</sub> concentration value from 720 or more hours of quality-assured CEMS data under part 75 that are recorded with the SO<sub>2</sub> scrubbers operating properly. This is analogous to the approach allowed for units with add-on emission controls under §75.34(a)(2). That section provides that the owner or operator of a unit with add-on controls may petition to use the maximum controlled emission rate during the previous 720 quality-assured monitor operating hours, rather than the maximum rate (whether controlled or uncontrolled), as substitute data.
- (b) As an alternative to reporting the maximum potential NO<sub>x</sub> emission rate for units at Altavista and Hopewell, Dominion may, for any hour in which proper operation of the add-on NO<sub>x</sub> emission controls (i.e., SNCR) is documented, report the “maximum controlled NO<sub>x</sub> emission rate.” The latter value shall equal the highest, hourly average NO<sub>x</sub> emission rate value from 720 or more hours of quality-assured CEMS data under

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<sup>1</sup> EPA notes that, as discussed above, the required date for the commencement of emission data reporting may be earlier than June 20, 2001, depending on EPA future conclusions about the applicability of the §72.6(b)(6) exemption to the plants.

part 75 that are recorded with the SNCR operating properly.

- (c) If Dominion chooses to report “maximum controlled SO<sub>2</sub> concentration” or “maximum controlled NO<sub>x</sub> emission rate,” then:
- (1) Consistent with §§75.34 (a)(1) and 75.58 (b)(3)(i), Dominion shall define emission control operating parameters that indicate proper operation of the add-on emission controls and shall document the acceptable ranges of these parameters in the quality assurance/quality control (QA/QC) program for each unit. The limestone feed rate (for SO<sub>2</sub> scrubbers) and the ammonia injection rate (for SNCR) shall be included in the emission control parameters.
  - (2) The emission control parameters under paragraph 2(c)(1) above shall be recorded hourly during the data collection period for each maximum controlled value. These parameters shall also be recorded during each unit operating hour in the period extending from June 21, 2001<sup>2</sup> until the date of provisional certification of part 75 CEMS.
  - (3) In the period starting from June 21, 2001<sup>3</sup> until the date of provisional certification of CEMS meeting the requirements of part 75. Dominion shall, consistent with §§75.58 (b)(3)(iii) and (b)(3)(iv), also record all quality-assured CEMS data obtained with the existing part 60 CEMS at the SO<sub>2</sub> and NO<sub>x</sub> control device inlets and outlets.
  - (4) Once the “maximum controlled SO<sub>2</sub> concentration” or “maximum controlled NO<sub>x</sub> emission rate” is established, Dominion shall report the appropriate maximum controlled value for each “controlled operating hour” in the period extending from June 21, 2001<sup>4</sup> to the date of provisional certification of part 75 monitoring systems. A “controlled operating hour” shall be an operating hour in which:
    - (i) The add-on emission controls are in operation (i.e., “on”); and
    - (ii) All recorded emission control parameters are within the acceptable ranges defined in the QA/QC plan; and
    - (iii) Quality-assured CEMS data from the existing part 60 CEMS indicate that the add-on emission controls are operating properly, as evidenced by the fact that the quality-assured hourly average concentrations or emission

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<sup>2</sup> See n. 1.

<sup>3</sup> See n. 1.

<sup>4</sup> See n. 1.

rates recorded by the CEMS installed at the control device outlets do not exceed the applicable maximum controlled value by more than 20% (which is the confidence band for the CEMS measurements, based on the allowable relative accuracy percentage for a part 60 monitoring system). For SO<sub>2</sub>, if the “maximum controlled SO<sub>2</sub> concentration” is determined on a wet basis, divide the concentration by 0.9 to convert it to a dry basis, for purposes of comparison against the existing part 60 monitoring systems, which are dry-basis analyzers (see section 2.1.1.1(c) of appendix A to part 75).

- (5) For any operating hour that does not qualify as a “controlled operating hour” for SO<sub>2</sub>, Dominion shall report the maximum potential SO<sub>2</sub> concentration or the maximum potential NO<sub>x</sub> emission rate, as described in paragraph 1 above.
3. EPA is aware that, for the second quarter of 2001, Dominion will be unable to meet the requirement to submit the electronic quarterly reports within 30 days after the quarter (i.e., by July 30, 2001) as required under § 75.64 for Altavista, Hopewell, and Southampton, since a functional data acquisition and handling system (DAHS) is needed to generate the electronic reports in the proper format. Further, because of the September 20, 2001 certification deadline for these plants, the 720 hours of part 75 CEMS data required to establish the default concentrations and emission rates described in paragraphs 1 and 2 above may not be obtainable by the deadline for submitting the third quarter, 2001 emission reports (i.e., October 30, 2001). In view of these considerations, EPA is granting for each unit an extension of the deadline for submission of second quarter 2001 and third quarter 2001 emission reports until January 30, 2002, which is the deadline for submission of fourth quarter 2001 emission reports.
4. As stated in paragraphs 1 and 2 above, if CEMS data are used to determine “maximum controlled SO<sub>2</sub> concentration,” “maximum controlled NO<sub>x</sub> emission rate,” or NO<sub>x</sub> MPC, only data from CEMS meeting the requirements of part 75 shall be used. If the requisite amount of data for one of these default values has not been obtained prior to the January 30, 2002 deadline for reporting quarterly emissions, then Dominion shall report the appropriate maximum potential value described in paragraph 1 above, in lieu of that default value.
5. For the period from June 21, 2001<sup>5</sup> to the date of provisional certification of part 75 monitoring systems, Dominion shall use the following method of determination code (MODC) values to report emissions data to EPA in the electronic quarterly reports:
  - (a) Use a MODC of “12” for every hour in which a maximum potential SO<sub>2</sub> or CO<sub>2</sub> concentration, a maximum potential flow rate, or a maximum potential NO<sub>x</sub> emission rate derived from part 75 CEMS data is reported; and

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<sup>5</sup> See n.1.

- (b) Use a MODC of "55" for every hour in which a maximum controlled SO<sub>2</sub> concentration, a maximum controlled NO<sub>x</sub> emission rate, or a maximum potential NO<sub>x</sub> emission rate derived from a NO<sub>x</sub> MPC of 675 ppm is reported.
6. EPA notes that, in addition to the above reporting requirements, several other requirements must be met as conditions for the September 20, 2001 certification deadline. Initial monitoring plans and test notifications in accordance with §§75.61 and 75.62 must be submitted no less than 45 days before the respective CEMS are tested for certification. The designated representative must also submit quarterly emission reports for each unit in accordance with §75.64. Because these units are not allocated any SO<sub>2</sub> allowances, SO<sub>2</sub> allowances must be obtained, in accordance with §72.9(c), to cover the SO<sub>2</sub> emissions for each unit during the period for which Dominion is required to report such emissions.<sup>6</sup>

EPA's determinations in this letter rely on the accuracy and completeness of the information provided in the April 20, 2001 petition and June 14, 2001 amendment to the petition and are appealable under part 78. If you have any further questions or concerns about this matter, please contact Robert Vollaro, at (202) 564-9116. Thank you for your continued cooperation.

Sincerely,



Brian J. McLearn, Director  
Clean Air Markets Division

cc: Linda Miller, EPA Region III  
John Strepelis, Virginia DEQ  
Robert Allen, Virginia DEQ  
Jed Brown, Virginia DEQ  
Robert Vollaro, CAMD

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<sup>6</sup> See n.1.