



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

OFFICE OF
AIR AND RADIATION

William Poleway, General Manager
UAE Mecklenburg Cogeneration LP
50 Tice Blvd.
Woodcliff Lake, NJ 07675

Dear Mr. Poleway:

This letter is U.S. EPA's determination of applicability under 40 CFR 72.6(c) of the Acid Rain regulations for United American Energy Corporation's ("UAE") Mecklenburg Facility ("Mecklenburg," Facility ID (ORISPL) 52007), in Mecklenburg County, Virginia. This determination is made in response to UAE's letter of June 6, 2002 requesting a determination. Specifically, UAE asked U.S. EPA if Mecklenburg's units would become affected units if, in the future, Mecklenburg failed to meet the definition of "qualifying facility" under 40 CFR 72.2. U.S. EPA has determined that if Mecklenburg fails to meet the definition of "qualifying facility," its units would no longer be unaffected units under 40 CFR 72.6(b)(5) and would become affected units under 40 CFR 72.6(a)(3)(v).

Background

Construction of Mecklenburg began in May 1991, and the facility commenced commercial operation on November 6, 1992. Mecklenburg consists of two identical coal-fired boilers (Boilers 1 and 2), each serving a 66 MW steam turbine and each with 725 mmBtu/hr maximum design heat input capacity. Process steam is extracted from the steam turbines and sold to Burlington Industries' ("Burlington") Clarksville facility ("Clarksville") pursuant to a steam sales agreement dated May 16, 1989. Electricity produced by Mecklenburg has been sold exclusively to Virginia Electric and Power Company ("Virginia Power") pursuant to a power purchase agreement effective January 17, 1989 (the "original power purchase agreement"), which remains in effect through November 6, 2017.

Burlington filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code on November 15, 2001, and is not currently operating Clarksville. Burlington occasionally receives small amounts of steam from Mecklenburg for heating purposes and to maintain equipment at Clarksville. Since commencing commercial operation in 1992, Mecklenburg has operated as a qualifying facility as defined in 40 CFR 72.2, which

incorporates the requirements for a qualifying facility set forth in 18 CFR 292.205 of the regulations of the Federal Energy Regulatory Commission implementing section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(D)). UAE believes that Mecklenburg may lose its qualifying facility status beginning in 2004 because the expected demand for process steam from Burlington for Clarksville in 2003 may not be enough to meet the minimum steam production requirement under 18 CFR 292.205 for a qualifying facility. See 18 CFR 292.205(a) (requiring a topping-cycle cogeneration facility to have useful thermal energy output of at least 5% of total energy output each year).

EPA Determination

Since Boiler 1 and Boiler 2 each burn coal and serve a generator producing electricity for sale, both boilers are “units” and (unless otherwise exempt) “utility units” as defined at 40 CFR 72.2. Further, since Boilers 1 and 2 have equipment used to produce steam that is used sequentially (first at the steam turbine to produce electricity for sale to Virginia Power and next at Clarksville for industrial purposes), Boilers 1 and 2 are also “cogeneration units” under 40 CFR 72.2. As noted earlier, the maximum design heat input capacity of Boilers 1 and 2 is 725 mmBtu/hr each; therefore, the potential electrical output capacity (“PEOC”) of Boilers 1 and 2 is 70.8 MWe each.¹

The Clean Air Act includes provisions discussing in detail the conditions under which a cogeneration unit is exempt from the Acid Rain Program. See, e.g., 42 U.S.C. 7651a(17)(C) (stating that a cogeneration unit is not a utility unit if it meets certain requirements concerning the purpose of its construction and the amount of electricity that it sells); and 42 U.S.C. 7651d(g)(6)(A) (stating that Clean Air Act title IV does not apply to a qualifying cogeneration facility that meets certain conditions as of November 15, 1990). EPA interprets these provisions, and §§72.2 and 72.6 of the regulations implementing the provisions, to provide that a cogeneration unit used to produce electricity for sale is a utility unit and thus subject to the Acid Rain Program, unless the unit meets the requirements for an exemption under §72.6(b).

Under 40 CFR 72.6(b)(4)(ii), a cogeneration unit that commences construction after November 15, 1990 and supplies no more than 1/3 of its PEOC or 219,000 MWe-hrs of electricity, whichever is greater, in its first year of operation to a utility power distribution system is exempt from the Acid Rain Program. In order to maintain this exemption, the unit must not exceed this threshold on an annual 3-year rolling average basis. Since 1/3 of the PEOC for Boilers 1 and 2 is 206,736 MWe-hrs,² each unit has a sales threshold of 219,000 MWe-hrs. However, the 219,000 MWe-hr threshold was exceeded in each unit’s first year of operation (from November 1992 through October 1993) when Boiler 1 and Boiler 2 supplied approximately 249,417 MWe-

¹ PEOC for a unit is calculated by dividing the maximum design heat input capacity in Btu/hr of the unit by 3 (reflecting the assumed efficiency of the unit), dividing again by 3,413 (reflecting the assumed heat rate), and dividing by 1,000 (converting to MWe). See 40 CFR part 72, appendix D.

² This figure is calculated by multiplying the PEOC by 8,760, the number of hours in a year, and then dividing by 3. See 40 CFR 72.6(b)(4)(ii).

hrs and 265,837 MWe-hrs respectively to Virginia Power's utility power distribution system for sale.³ Consequently, neither unit is exempt under 40 CFR 72.6(b)(4)(ii).

Under 40 CFR 72.6(b)(5), a cogeneration unit is exempt from the Acid Rain Program if it is a qualifying facility, has a qualifying power purchase commitment that is effective as of November 15, 1990, and meets certain additional requirements. If a unit initially met all these requirements but subsequently is no longer a qualifying facility or no longer has a qualifying power purchase commitment, it is no longer exempt under 40 CFR 72.6(b)(5).

As noted earlier, UAE and Virginia Power entered into a power purchase agreement effective January 17, 1989, for 100% of Mecklenburg's total planned net output capacity. Mecklenburg has installed capacity of 132 MW, which is 84.9% of the total planned net output capacity of 155.4 MW. Thus, the power purchase agreement accounts for at least 15% of total planned net output capacity, and installed capacity is not greater than 130% of total planned net output capacity, as required under 40 CFR 72.6(b)(5)(i) and (ii).

Further, the original power purchase agreement established a power purchase price comprising: a fuel cost formula that allowed annual recalculations of the fuel charges to reflect market coal prices; and fixed charges for operation and maintenance and for capacity. Despite amendments to this agreement effective May 10, 1991, May 1, 2002, and April 8, 2003, the identity of the power purchaser (Virginia Power) and the identity and location of the steam purchaser (Burlington) have not changed since Mecklenburg commenced commercial operation. This satisfies the requirements for a qualifying power purchase commitment under subparagraph (1) of the qualifying power purchase commitment definition in 40 CFR 72.2. Moreover, as required under subparagraph (3) of that definition, none of these amendments allow costs of compliance with the Acid Rain Program to be shifted to Virginia Power. The May 10, 1991 and May 1, 2002 amendments altered the fuel cost formula in a way that reduced the fuel charges. Recalculations (on November 16, 1992 and June 27, 2002) of fuel charges under the fuel cost formula reflected market prices for coal. The April 8, 2003 amendment required additional payments by UAE to Virginia Power. U.S. EPA therefore finds that Mecklenburg continues to have a "qualifying power purchase agreement" under 40 CFR 72.6(b)(5) and as defined at 40 CFR 72.2.

However, 40 CFR 72.6(a)(3)(v) states that a cogeneration unit loses the exemption under 40 CFR 72.6(b)(5) if the unit:

³ UAE provided estimated electrical sales for Boilers 1 and 2 from November 1992 through October 1993, which U.S. EPA is relying on for purposes of the exemption under 40 CFR 72.6(b)(4)(ii). U.S. EPA notes that the units also subsequently exceeded their electrical sales thresholds on a three-year (i.e., 1993 through 1995) rolling average basis.

[w]as an exempt qualifying facility under paragraph (b)(5) of this section, but, at any time after the later of November 15, 1990 or the date the facility commences commercial operation, fails to meet the definition of qualifying facility[.]

Therefore, if the Mecklenburg units fail to meet the definition of qualifying facility under 40 CFR 72.2 (which incorporates the requirements in 18 CFR 292.205), Mecklenburg will not be exempt under 40 CFR 72.6(b)(5) even if it continues to have a qualifying power purchase agreement. It will therefore be an affected unit under 40 CFR 72.6(a)(3)(v) beginning on the date that it no longer meets the definition of qualifying facility under 40 CFR 72.2. In the instant case, since qualifying facility status determinations are made on a calendar year basis, if Mecklenburg fails to meet the definition for qualifying facility for calendar year 2003, it will be an affected unit beginning January 1, 2004.

If Boilers 1 and 2 become affected units, the boilers must comply with all applicable requirements under the Acid Rain Program, including the requirements to apply for and receive an Acid Rain Permit (under Part 72), to monitor and report sulfur dioxide, nitrogen oxide, and carbon dioxide emissions and heat input (under Part 75) within the later of 90 unit operating days or 180 calendar days of the loss of the exemption under 40 CFR 72.6(b)(5),⁴ and to hold allowances to cover sulfur dioxide emissions (under Parts 72 and 73) starting as of the monitoring and reporting deadline.

This determination relies, and is contingent, on the accuracy and completeness of the representations in the June 6, 2002 letter referenced above and supplemental information provided on April 8, 2003 and is appealable under Part 78. The applicable regulations require you to send copies of this letter to each owner or operator of Mecklenburg (40 CFR 72.6(c)(1)). If you have further questions regarding the Acid Rain Program, please contact Robert Miller of EPA's Clean Air Markets Division at (202) 564-9077.

Sincerely,

/s/ (November 25, 2003)

Samuel A. Napolitano, Acting Director
Clean Air Markets Division

cc: David Brown, Virginia DEQ
Renee McLaughlin, U.S. EPA Region 3

⁴ See 40 CFR 75.4(c).