



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

JUN 23 2003

OFFICE OF
AIR AND RADIATION

Mr. James Doherty
Designated Representative
Oneta Energy Center
25142 E. 105 Street South
Broken Arrow, OK 74014

Re: Petition for extension for CEMS certification at Calpine Oneta Power, (Facility ID (ORISPL) 55225), Units CTG-3 and CTG-4

Dear Mr. Doherty:

The United States Environmental Protection Agency (EPA) has reviewed Calpine Oneta Power's April 10, 2003, petition under §75.66(a) of the Acid Rain regulations. The petition requests an extension of the deadlines to complete certification of the nitrogen oxides (NO_x) continuous emission monitoring systems installed on Units CTG-3 and CTG-4 at the Broken Arrow, Oklahoma facility. EPA approves the petition, with conditions, for the reasons discussed below.

Background

Calpine Oneta Power (COP) operates a power plant located in Broken Arrow, Oklahoma. The facility consists of four General Electric 7FA combined-cycle combustion turbines, i.e., Units CTG-1, CTG-2, CTG-3, and CTG-4, and two GE steam turbines servicing the combustion turbines. The combined-cycle units are subject to the Acid Rain Program, and are required to continuously monitor and report sulfur dioxide (SO₂), nitrogen oxides (NO_x) and carbon dioxide (CO₂) emissions under 40 CFR Part 75. To meet the SO₂ and CO₂ monitoring requirements, COP has chosen to use certified fuel flowmeters and periodic fuel sampling and analysis, in accordance with Appendices D and G of Part 75. For NO_x, COP has elected to use continuous emission monitoring systems (CEMS). At the present time, COP is nearing the completion of start-up operations and testing of two of the combined-cycle turbines (Units CTG-3 and CTG-4) and the steam turbine servicing them.

Under §75.4(b)(2), certification of the NO_x CEMS installed on Units CTG-3 and CTG-4 must be completed within 90 operating days or 180 calendar days (whichever occurs first) after commencement of commercial operation. According to COP, Units CTG-3 and CTG-4 commenced

commercial operation on November 2, 2002 and November 8, 2002, respectively, but have not yet had 90 operating days. Therefore, COP should have completed the CEMS certification procedures for the units no later than 180 days after the commencement of commercial operation, i.e., by May 1, 2003, for Unit CTG-3 and by May 7, 2003, for Unit CTG-4.

On December 19, 2002, COP notified the Oklahoma Department of Environmental Quality of its intent to begin CEMS certification testing of Units CTG-3 and CTG-4 on January 21, 2003. However, the units were shut down prior to that date due to problems with the steam turbine. The steam turbine experienced a vibration that was diagnosed as a keybar rattle, i.e., a vibration of the metal bars that hold the generator in place. In view of this, COP decided to have a contractor perform an acoustic survey of the turbine on December 12, 2002. On December 17, 2002, the steam turbine ceased operation so that GE Power Systems, the manufacturer of the unit, could perform repairs.

Parts for the steam turbine were ordered on January 7, 2003, and arrived early in February. Repair of the keybar rattle and other associated work was initiated on February 17, 2003. In the process of repairing the steam turbine, GE Power Systems discovered an additional problem with the tips of the compressor blades. A boroscope inspection revealed a design flaw which, if left uncorrected, could result in a catastrophic failure of the turbine. The repair work on the keybar was completed on March 22, 2003. Repair of the compressor blade tips was initiated on March 26, 2003.

Because the mechanical problems with the steam turbine would be solved by May 2003, COP rescheduled the CEMS certification testing of Units CTG-3 and CTG-4 for May 13, 2003. However, since this rescheduled test date would fail to meet the units' CEMS certification deadlines, COP submitted a petition to EPA on April 10, 2003 requesting an extension of the deadlines.

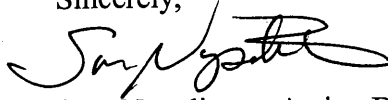
EPA's Determination

COP apparently experienced unavoidable mechanical problems during the commissioning of Units CTG-3 and CTG-4, which prevented COP from meeting the CEMS certification deadlines. COP documented these problems in the April 10, 2003 petition and in an April 29, 2003 letter to EPA, submitted in response to a request for additional information. COP appears to have taken reasonable and timely measures to resolve the problems. Therefore, EPA approves a 90-day extension of the CEMS certification deadline for each unit, i.e., until July 29, 2003 for Unit CTG-3 and until August 5, 2003 for Unit CTG-4.

The approved CEMS certification deadline extensions for Units CTG-3 and CTG-4 are conditioned on COP reporting emissions data starting from the original CEMS certification deadline for each unit. Consequently, COP shall report substitute data for each operating hour of Units CTG-3 and CTG-4, beginning with the first operating hour after the applicable certification deadline (i.e., the first operating hour after May 1, 2003 for Unit CTG-3 and the first operating hour after May 7, 2003 for Unit CTG-4), and continuing until the hour in which the NO_x CEMS is certified under §75.20(a). In order to ensure that emissions are not under-reported, COP shall report the maximum potential NO_x emission rate for each unit (calculated in accordance with Part 75, Appendix A, Section 2.1.2.1) until the required CEMS certification tests have been successfully completed.

EPA's determination relies on the accuracy and completeness of the information in the April 10, 2003, petition and the additional technical information provided in the April 29 2003, letter, and is appealable under Part 78. If you have any further questions about this matter, please contact Ruben Deza at (202) 564-3956.

Sincerely,



Sam Napolitano, Acting Director
Clean Air Markets Division

cc. Joseph Winkler, EPA Region VI
Ruben Deza, CAMD