August 20, 2008

Kim R. Stoker,
Designated Representative
CPS Energy
Mail Drop 100406
145 Navarro P.O. Box 1771
San Antonio, Tx 78296-1771

Re: Petition to Use an Alternative Substitute Data Methodology for Units 1 and 2 at the J.T. Deely Power Plant (Facility ID (ORISPL) 6181)

Dear Ms. Stoker:

The United States Environmental Protection Agency (EPA) has reviewed the January 17, 2008 petition[1] submitted by CPS Energy (CPS) under 40 CFR 75.66, in which CPS requested an alternative to the use of standard missing data substitution to account for sulfur dioxide (SO_2) emissions from Units 1 and 2 at the J.T. Deely Facility. EPA approves the petition in part, with conditions, as discussed below.

Background

CPS owns and operates two 415 megawatt tangentially-fired boilers, Units 1 and 2, at the J.T. Deely Facility located in Bexar County, Texas. Units 1 and 2 combust primarily coal and share a common stack, known as CS012. According to CPS, the units are subject to the Acid Rain Program. Therefore, CPS is required to continuously monitor and report SO_2, nitrogen oxides (NO_x), and carbon dioxide (CO_2) emissions and heat input for these units, in accordance with 40 CFR Part 75.

Because Units 1 and 2 are coal-fired, CPS is required to use continuous emission monitoring systems (CEMS) for SO_2 and stack gas volumetric flow rate to determine the units' hourly SO_2 mass emissions. These monitoring systems must be initially certified according to the procedures specified in Part 75, Appendix A. Periodic, on-going quality assurance (QA) testing of the monitoring systems is also required under Appendix B of Part 75, to ensure that the monitors continue to generate accurate data.

One of the required certification tests of the stack flow monitoring system is a relative accuracy test audit (RATA) at three load levels. Section 2.3.1.3(c)(4) in Appendix B of Part 75 requires this 3-load RATA to be repeated at least once every five years. Prior to January 24, 2008, section 2.3.1.3(c)(4) had required the 3-load flow

[1] Note that CPS submitted an amended version of the petition on February 8, 2008

RATA to be done once in each period of five consecutive calendar years. However, on January 24, 2008 EPA revised section 2.3.1.3(c)(4) to require the test once every 20 calendar quarters.[2]

According to CPS, the last 3-load RATA of the flow monitor on common stack CS012 was performed in 2001 (specifically, on May 23, 2001). Under the version of Part 75 that was in effect at that time, the May 23, 2001 test satisfied the 3-load flow RATA requirement for the five consecutive calendar years 2001-2005. However, to cover the five consecutive calendar years 2002- 2006, another 3-load flow RATA was required by the end of 2006 or within a 720 operating hour grace period thereafter.[3]

CPS did not perform another 3-load flow RATA until November 27, 2007. This was well beyond January 31, 2007, which was the expiration date of the grace period. Therefore, data from the flow monitor became invalid, starting with the first operating hour after the grace period expired, and remained invalid until the date and hour of completion of the 3-load flow RATA. During that time period, the standard missing data procedures in §75.33(c) for stack gas flow rate must be used (i.e., from January 31, 2007, hour 00 through November 27, 2007, hour 15). The missing data algorithms in §75.33(c) become increasingly conservative as the length of a missing data period increases and the percent monitor data availability (PMA) decreases. When the PMA drops below 80.0 percent, the maximum potential flow rate (MPF) must be reported for each hour of missing flow rate data.

On January 17, 2008, CPS petitioned for an alternative to the standard missing data procedures of §75.33(c), believing that using these procedures for nearly eleven months from January 31, 2007, hour 00 through November 27, 2007, hour 15 would grossly overstate the 2007 SO_2 mass emissions from Units 1 and 2. CPS proposed four alternatives for EPA to consider:

- The first alternative was a request for a one-time waiver of the 3-load flow RATA requirement.

- The second alternative was a request for a one-time extension of the 3-load RATA frequency from once every five years to once every six years.

- The third alternative was a request to use missing data substitution only for operating hours in the low load band of the operating range, as defined in the monitoring plan. The flow rate data recorded at the mid and high load levels would be considered valid. According to CPS, in 2007 the units ran at high load 76 percent of the time, at mid load 9 percent of the time, and at low load 15 percent of the time. Therefore, 85 percent of the flow rate data were recorded at mid and high load, and annual RATAs of

[2] See 73 FR 4312, 4367 (Jan. 24, 2008) (amendment 41(i), revising Part 75, Appendix B, section 2.3.1.3(c)(4)).

[3] See 40 CFR Part 75, Appendix B, section 2.3.3(a)(2).

the flow monitor at mid and/or high load were performed and passed each year since 2001.

- The fourth alternative was a request for relief from reporting the maximum potential flow rate when the PMA dropped below 80.0 percent. CPS proposed to report the highest flow rate recorded in a lookback through the 720 hours of quality-assured data immediately preceding the missing data period, in lieu of reporting the MPF.

EPA's Determination

EPA approves, in part, CPS's petition to use an alternative substitute data methodology to calculate the SO_2 emissions from J.T. Deely Units 1 and 2 during the time period from January 31, 2007, hour 00 through November 27, 2007, hour 15. The Agency approves a substitute data value of 144,588,000 scfh for stack flow for hours in which the PMA is below 80.0 percent, as an alternative to reporting the MPF value of 194,760,000 scfh.

The successful 2-load flow RATAs that were conducted in the second quarter of 2006 (prior to the missing data period) and in the second quarter of 2007 (during the missing data period) provide reasonable assurance that majority of the data from the flow monitor during the missing data incident were accurate. If the Agency were to accept these data as quality-assured by granting a one-time waiver of the 3-load flow RATA requirement or a one-time extension of the 3-load RATA deadline from five years to six years (which were CPS' first two proposed alternatives to using standard missing data substitution), the reported SO_2 mass emissions for the time period in question would be 20,603 tons.

While 20,603 tons is considered to be a reasonable estimate of the units' actual SO_2 emissions, EPA is not approving either a one-time waiver of the 3-load RATA or a one-time RATA deadline extension. The Agency believes that granting such a waiver or extension would set a bad precedent by encouraging other sources to petition for regulatory relief whenever required quality assurance tests are not completed on time. EPA believes that the grace period provisions of Part 75 provide adequate relief to address such situations.

CPS' third proposed alternative to standard missing data was to apply substitute data only at the low load level because none of the flow RATAs since 2001 were performed at low load. EPA also rejects this request as setting an undesirable precedent. For example, it might encourage sources that fail one load of a multi-load flow RATA to submit similar petitions, requesting to use substitute data only at the failed load level until a subsequent RATA is passed at that load.

Applying the standard Part 75 missing data procedures would increase the reported SO_2 emissions by nearly 40 percent, from 20,603 tons to 28,658 tons. This sharp increase in the reported emissions is due mainly to the extreme length of the

missing data period, which requires the MPF to be reported for more than 7 months. Taking into account the successful RATAs of the flow monitor that were performed in 2006 and 2007, EPA concludes that using standard missing data substitution grossly overstates the actual emissions from Units 1 and 2 and that alternative data substitution is appropriate.

CPS' fourth and final proposal was to report the highest quality-assured flow rate recorded in a 720-hour lookback period preceding the missing data incident, instead of reporting the MPF. As discussed below, this approach results in reasonable, conservatively high emissions data consistent with the purposes of the standard missing data procedure. Therefore, the Agency approves an alternate substitute data value of 144,588,000 scfh, to be reported instead of the MPF when the PMA is below 80.0 percent. The approved alternative substitute data value is the maximum flow rate from a lookback through 2,160 hours (rather than 720 hours, as proposed by CPS) of quality-assured data, immediately preceding the missing data period. Using the approved alternative flow rate results in approximately 23,400 tons of SO_2 emissions, which is about 13.6% above the estimated actual emissions.

EPA believes that a 2,160 hour lookback period is more consistent with the standard missing data procedures than the 720 hour lookback proposed by CPS (although in this instance, coincidentally, both the 720 hour and 2,160 hour lookbacks give the same result). The standard missing data lookback period for flow rate described in §75.33 is 2,160 hours. Further, the approved substitute data value, though considerably lower than the MPF, is more conservative than the third tier of the standard missing data procedures, which applies when the PMA is between 80 and 90 percent. The substitute data values in the third missing data tier are the maximum load-based flow rates in a 2,160 hour lookback, whereas the approved substitute data value is the maximum value in the same lookback period, without taking operating load into account. The approved alternative substitute data value is therefore consistent with the purposes of missing data substitution, which are to ensure that emissions are not underreported and to provide strong incentive for owners and operators to ensure that monitoring systems are properly operated and maintained.

Conditions of Approval

The conditions of this approval are as follows:

(1) CPS shall resubmit the first, second, third, and fourth quarter 2007 electronic data reports (EDRs) for J.T. Deely Unit 2, no later than September 15, 2008.

(2) For the time period extending from January 31, 2007, hour 00 through November 27, 2007, CPS shall report substitute data for stack gas volumetric flow rate, as follows:

(a) From January 31, 2007, hour 00 until the volumetric flow rate PMA dropped below 80.0 percent on April 15, 2007, hour 12, CPS shall use standard missing data substitution for flow rate in accordance with §75.33 and shall report the substitute data values in column 39 of EDR record type 220; and

(b) From April 15, 2007, hour 12 through November 27, 2007, hour 15, CPS shall report the approved alternative substitute data value of 144,588,000 scfh in column 39 of EDR record type 220; and

(c) CPS shall report the appropriate Method of Determination Codes (MODCs) for standard missing data substitution in column 56 of EDR record type 220, from January 31, 2007, hour 00 through April 15, 2007, hour 11. From April 15, 2007, hour 12 through November 27, 2007, hour 15, CPS shall report a MODC of "55" in column 56 of EDR record type 220.

(3) CPS shall include EDR record type 910 in the second, third, and fourth quarter 2007 resubmitted EDRs for J. T. Deely Unit 2. Each RT 910 shall indicate the period(s) of time for which the emissions data have been adjusted in accordance with this approval.

(4) CPS shall coordinate resubmission of the EDRs with Mr. Ujjval Shukla, who may be reached at (202) 343-9196, or by e-mail at shukla.ujjval@epa.gov .

(5) CPS shall address the SO_2 allowance accounting issues for J.T. Deely Unit 2 with Mr. Kenon Smith, who may be reached at (202) 343-9164, or by e-mail at smith.kenon@epa.gov

EPA's determination relies on the accuracy and completeness of the information provided by CPS in the January 17, 2008 petition, as amended on February 8, 2008, and is appealable under Part 78. If you have any questions regarding this determination, please contact Travis Johnson, either at (202) 343-9018 or Johnson.Travis@epa.gov. Thank you for your continued cooperation.

Sincerely,

/s/
Sam Napolitano, Director
Clean Air Markets Division

cc: Mr. John Smith, Texas CEQ
Joyce Johnson, EPA Region VI
Travis Johnson, CAMD

Ujjval Shukla, CAMD
Kenon Smith, CAMD