

April 30, 2007

Mr. James O. Vick  
Alternate Designated Representative  
Gulf Power Company  
One Energy Place  
Pensacola, FL 32520

Re: Petition for an Alternative Mercury Monitor Certification Deadline for Units 4, 5, 6, and 7 at the Crist Electric Generating Station (Facility ID (ORISPL) 641)

Dear Mr. Vick:

The United States Environmental Protection Agency (EPA) has reviewed the January 5, 2007 petition submitted under 40 CFR 75.66 by the Gulf Power Company (Gulf Power), in which Gulf Power requested an alternative mercury monitoring system certification deadline for Units 4, 5, 6, and 7 at the Crist Electric Generating Facility. EPA approves the petition in part, with conditions, as discussed below.

#### Background

Gulf Power owns and operates four coal-fired boilers, Units 4, 5, 6, and 7 at the Crist Electric Generating Facility (Crist), located in Escambia County, Florida. These units are subject to the emission monitoring and reporting requirements of the Clean Air Mercury Regulation (CAMR), under 40 CFR 60.4170-60.4176, which the Florida Department of Environmental Protection has incorporated by reference in Rule 62-296.480 of the Florida Administrative Code.

Rule 62-296.480 requires the owner or operator of an existing unit subject to CAMR to install and certify a continuous mercury monitoring system in accordance with Subpart I of 40 CFR Part 75, no later than January 1, 2009. Further, units subject to CAMR that build a new stack or install add-on control equipment that reduces mercury emissions are required to meet another mercury monitoring system certification deadline. These units must certify mercury monitoring systems within 90 unit operating days or 180 calendar days (whichever comes first) after emissions first exit to the atmosphere through the new stack or control equipment.

Gulf Power intends to install a flue gas desulfurization (FGD) system to control sulfur dioxide (SO<sub>2</sub>) emissions from Crist Units 4, 5, 6, and 7, with a co-benefit of reducing mercury emissions. Construction of the FGD will begin in 2007 and is expected to be completed by September 2009. A new stack will be built as part of the FGD

construction project and the emissions from Units 4, 5, 6, and 7 will exit to the atmosphere through this stack.

Currently, emissions from Units 4, 5, 6, and 7 exit to the atmosphere through two common stacks. Gulf Power monitors the SO<sub>2</sub>, nitrogen oxides (NO<sub>x</sub>) and carbon dioxide (CO<sub>2</sub>) emissions from each unit individually, using four sets of continuous emission monitoring systems (CEMS) located in the ductwork leading to the two stacks. When the FGD installation is complete, the emissions from Units 4, 5, 6, and 7 will be monitored using one set of CEMS located at the new common stack. The two existing stacks will continue to be used as bypass stacks during startup, shutdown, and malfunction conditions and when maintenance is performed on the FGD.

Due to the timing of the FGD installation, Rule 62-296.480 requires Gulf Power to meet two separate mercury monitoring system certification deadlines for Crist Units 4, 5, 6, and 7. First, Gulf Power must install and certify mercury monitoring systems for these CAMR-affected units by January 1, 2009. Second, in September 2009 when construction of the new stack is completed and the FGD becomes operational, Gulf Power will be required to install and certify a mercury monitoring system on the new common stack, within 90 unit operating days or 180 calendar days (whichever comes first) after emissions first exit to the atmosphere through the stack.

In the January 5, 2007 petition, Gulf Power requested relief from the January 1, 2009 monitor certification deadline. In particular, Gulf Power requested that this deadline be extended to coincide with the monitor certification deadline associated with the FGD installation and construction of the new stack. Gulf Power further proposed to ensure that a mercury monitoring system for Units 4, 5, 6, and 7 would be installed and certified no later than December 31, 2009.

According to Gulf Power, EPA should consider extending the January 1, 2009 monitor certification deadline for the following reasons. The present exhaust configuration for Crist Units 4, 5, 6, and 7 would require four mercury monitoring systems, i.e., one for each unit, to be installed and certified to meet the requirements of CAMR. Gulf Power believes that this would not only be costly and put a strain on its limited resources, but also would provide no environmental benefit. The mercury monitors would be used only for about nine months until construction of the FGD and new stack is completed. After that, the mercury mass emissions from all four units would be measured with a single monitoring system installed on the new common stack.

Further, the January 5, 2007 petition states that extending the monitor certification deadline would have a *de minimis*, if any, adverse impact. According to Gulf Power, the data would be unrepresentative of the mercury emission levels that will exist after the FGD becomes operational, and therefore the data would be of little value. Gulf Power believes that the main goal of CAMR, i.e., to reduce mercury emissions, would not be compromised if EPA were to grant the requested regulatory relief. A certified mercury monitoring system for Crist Units 4, 5, 6, and 7 would be in place by January 1, 2010,

when the measured mercury emissions begin to count against the state mercury emissions budget under CAMR.

### EPA's Determination

EPA conditionally approves Gulf Power's petition for an extension of the January 1, 2009 mercury monitoring certification deadline for Crist Units 4, 5, 6, and 7. Under the following unique circumstances, EPA concludes that the January 1, 2009 mercury monitoring certification deadline for Crist Units 4, 5, 6, and 7 should be extended, with conditions, to the earlier of: December 31, 2009; or 90 unit operating days or 180 calendar days (whichever occurs first) after the date on which emissions first exit to the atmosphere through the new stack or FGD system:

- First, Gulf Power is constructing a FGD system (including a new stack) that will reduce SO<sub>2</sub> and mercury emissions from the units. If Gulf Power were to install continuous mercury monitoring systems by January 1, 2009 on each of the four units' existing ductwork, Gulf Power would replace these systems after it completes the FGD and new stack with a continuous mercury monitoring system on the new stack to monitor emissions after the FGD system.
- Second, Gulf Power states that the FGD system will be completed by September 2009 and the mercury monitoring system on the new stack will be certified by December 31, 2009. Consequently, any continuous mercury monitoring systems installed on the existing ductwork would be replaced after about nine months of reporting.
- Third, because the requirement to hold allowances covering emissions does not begin until January 1, 2010, mercury emissions data for calendar year 2009, while required to be reported under the EPA-administered mercury trading program, will not affect the application of the nationwide annual cap on EGU mercury emissions under this program. Moreover, pre-2010 reported emissions data from the continuous mercury monitoring systems would not be representative of the units' emissions in 2010 and thereafter because of the installation of the FGD system.

EPA therefore concludes that requiring four continuous mercury monitoring systems to be installed and certified in the existing ductwork at Crist Units 4, 5, 6, and 7 by January 1, 2009 would serve little or no purpose under CAMR and that an extension to no later than December 31, 2009 as described above, is appropriate.

However, although EPA is extending the January 1, 2009 mercury monitor certification deadline for Crist Units 4, 5, 6, and 7, the Agency is not granting relief from the provisions of Rule 62-296.480 requiring Gulf Power to report mercury mass emissions and heat input data for these units in 2009. Therefore, the conditions of this approval are as follows:

- (1) On or before December 31, 2008, Gulf Power shall perform mercury (Hg) emission testing on Crist Units 4, 5, 6, and 7 as described in 40 CFR 75.81(c)(1). Three test runs at normal load are required for each unit, while coal is being combusted;
- (2) From the results of these emission tests, Gulf Power shall determine a default Hg emission factor, in  $\mu\text{g}/\text{m}^3$ , for each affected unit. The default emission factor shall be the greater of: (1) the highest Hg concentration from any test run; or (2)  $0.50 \mu\text{g}/\text{m}^3$ ;
- (3) In 2009, for each hour of operation prior to completion of the FGD installation, Gulf Power shall use the appropriate default Hg concentration from (2) above to calculate the hourly Hg mass emissions in ounces for each unit. These calculations shall be performed according to section 9.1.3 in Appendix F to 40 CFR Part 75;
- (4) In 2009, Gulf Power shall comply with the applicable recordkeeping and reporting requirements in 40 CFR 75.84 for Crist Units 4, 5, 6, and 7;
- (5) Starting on the date and hour when emissions first exit to the atmosphere through the new common stack serving Units 4, 5, 6, and 7, Gulf Power shall discontinue reporting unit level emissions data and shall begin reporting emissions data in the common stack configuration for all parameters;
- (6) For the new monitoring systems installed on the common stack, Gulf Power shall follow the applicable monitor certification and data validation guidelines in Questions 16.14 through 16.16 in the "Part 75 Emissions Monitoring Policy Manual". For the purposes of this approval, those general guidelines are extended to include Hg monitoring systems; and
- (7) Gulf Power shall install and certify a continuous mercury monitoring system (or monitoring systems) to quantify the Hg mass emissions from Crist Units 4, 5, 6, and 7 by December 31, 2009. All Hg emissions from the units must be accounted for.
- (8) If the monitoring system certification deadline in paragraph (7) above is not met, Gulf Power shall report the maximum potential Hg concentration, as defined in section 2.1.7.1 of Appendix A to 40 CFR Part 75, beginning on January 1, 2010 and continuing until all required certification tests of the required Hg monitoring system(s) have been successfully completed.
- (9) Notwithstanding the monitoring system installation and certification requirements in paragraph (7), above, Gulf Power may opt, pursuant to 40 CFR 75.82(c)(3), to continuously monitor Hg emissions only at the new common stack by December 31, 2009 and to report the maximum potential Hg concentration during hours when the (existing) bypass stacks are used.

EPA's determination relies on the accuracy and completeness of the information provided by Gulf Power in the January 5, 2007 petition and is appealable under 40 CFR Part 78. If you have any questions about this determination, please contact Robert Vollaro, at (202) 343-9116. Thank you for your continued cooperation.

Sincerely,

/s/

Sam Napolitano, Director  
Clean Air Markets Division

cc: David McNeal, EPA Region IV  
Errin Pichard, Florida DEP  
Robert Vollaro, CAMD