

April 7, 2014

Ms. Ann W. McIver, QEP
CAIR Designated Representative
Citizens Thermal
366 Kentucky Avenue
Indianapolis, IN 46225

Re: Petition for Units 12, 15 and 16 at the CC Perry K Steam Plant (Facility ID (ORISPL) 992) for a Waiver of the Requirement to Submit Operating Data to Qualify as “Gas-Fired” Under 40 CFR 72.2

Dear Ms. McIver:

The United States Environmental Protection Agency (EPA) has reviewed the September 25, 2013 petition submitted under 40 CFR 96.375 and 40 CFR 75.66 by Citizens Thermal (Citizens) requesting a waiver for Units 12, 15, and 16 at CC Perry K Steam Plant (Perry K) of the requirement to submit operating data in order to qualify as “gas-fired” under 40 CFR 72.2. EPA approves the petition, with conditions, as discussed below.

Background

Citizens owns and operates the Perry K Steam Plant, which is located in Indianapolis, Indiana. Perry K has eight fossil fuel-fired boilers (Units 11 through 18) that serve a district heating plant. Unit 12 has historically operated as a pulverized coal-fired unit and shares common stack CS004 with Unit 13, a natural gas-fired unit. Units 15 and 16 have historically operated as coal-fired spreader stoker units and share common stack CS001 with Units 17 and 18, which have historically operated as distillate oil-fired units. (Units 11 and 14 are natural gas-fired units that exhaust to a third common stack.)

Units 12, 15, and 16 each have a design heat input capacity in excess of 250 million Btu per hour and are subject to the Clean Air Interstate Rule (CAIR) ozone season trading program for nitrogen oxides (NO_x). Citizens is therefore required to continuously monitor and report NO_x mass emissions and heat input for these units in accordance with 40 CFR Part 75. To meet these monitoring requirements, Perry K has installed and certified NO_x-diluent continuous emission monitoring systems (CEMS), carbon dioxide CEMS, and stack gas flow rate monitors on common stacks CS004 and CS001.

In the September 25, 2013 petition, Citizens states that it plans to permanently convert Units 12, 15, and 16 from coal-firing units to natural gas-firing units. As part of the conversion, certain equipment required for coal combustion, including the coal feeders and burners for Unit 12 and the coal feeders and stoker grates for Units 15 and 16, will be removed and replaced with equipment designed for natural gas combustion. In addition, the operating permit for Perry K is

being modified to prohibit Units 12, 15, and 16 from combusting fuel other than natural gas. Following the conversion to natural gas combustion, Citizens also plans to remove the existing stack gas flow monitors from CS004 and CS001 and instead meet the units' heat input monitoring requirements using the monitoring methodology in Appendix D to Part 75, which relies on measurements of the quantity of fuel combusted.

The Appendix D methodology is available only to units that are "gas-fired" or "oil-fired." The definition of the term "gas-fired" in 40 CFR 72.2 includes provisions under which a historically coal-fired unit can qualify as "gas fired" based upon the submission of operating data demonstrating that the unit has burned natural gas for a specified minimum percentage of its overall fuel usage for a specified minimum number of hours.¹ Citizens would prefer to begin using the Appendix D monitoring methodology at Units 12, 15, and 16 immediately following their conversion to gas combustion, and accordingly has petitioned for the units to be considered as meeting the §72.2 definition of "gas-fired" immediately following their permanent conversion, which would necessitate a waiver of the otherwise applicable requirement to submit the operating data just described.

EPA's Determination

Absent a waiver from the requirement to submit three calendar years or 720 operating hours of operating data to demonstrate that Perry K Units 12, 15, and 16 qualify as "gas-fired," under 40 CFR 75.10(a)(1) Citizens would be required to continue monitoring the heat input rate using stack gas flow rate and CO₂ monitors until such data were provided. However, if EPA were to grant a waiver of the operating data submission requirement and allow the units to be considered as meeting the definition of "gas-fired," Citizens would be able to discontinue using the flow rate and CO₂ monitors and begin using the Appendix D methodology immediately upon converting the units from coal to natural gas combustion.

According to Citizens, the conversion of Perry K Units 12, 15, and 16 from coal-firing to natural gas-firing will be permanent. For Unit 12, all piping from the coal feeders to the burners will be removed and the coal burners will be replaced with gas burners at the same locations. For Units 15 and 16, the stoker grates will be removed, the front wall stoker feeders will be removed, and refractory brick will be installed to support installation of the replacement natural gas burners. Once these changes are made, the units no longer will be capable of combusting coal. Further, Citizens has indicated that the Title V operating permit is being modified to reflect the permanent change from coal combustion to natural gas combustion. EPA views these factors as providing sufficient assurance that the conversion of Units 12, 15, and 16 is permanent, fulfilling the purpose of the operating data submission requirement and making that requirement unnecessary in this instance.

In view of these considerations, EPA approves Citizens' petition for a waiver of the requirement to submit three calendar years or 720 hours of unit operating data to demonstrate that Perry K Units 12, 15, and 16 meet the definition of "gas-fired" under 40 CFR 72.2. These units

¹ For a unit combusting only natural gas, the minimum required quantity of operating data would be data for three calendar years or 720 operating hours, whichever is less. 40 CFR 72.2.

shall be considered gas-fired for the purposes of the CAIR NO_x Ozone Season Trading Program as soon as they begin to operate after the conversion to natural gas-firing. At that point, Citizens may discontinue using the flow rate and CO₂ monitors at CS001 and CS004 and may begin using the provisions of Appendix D to Part 75 to quantify heat input.

As conditions of this approval, Citizens shall:

1. Make all necessary revisions to the electronic monitoring plans for Perry K Units 12, 15, and 16, and CS001 and CS004, to represent the change from coal-firing to natural gas-firing. The monitoring plan revisions include, but are not limited to, assigning appropriate closeout dates, activation dates and codes for fuel type, monitoring systems, monitoring methodologies, emissions and heat input rate formulas, and monitoring system span and range values;
2. Ensure that the natural gas flowmeters are certified according to section 2.1.5 of Appendix D to Part 75 prior to the initial operation of Units 12, 15, and 16 following the conversion to gas-firing, and that the data acquisition and handling system is properly programmed for the Appendix D methodology; and
3. Provide EPA with a copy of the written approval of the Indiana Department of Environmental Management required for the requested waiver from the 40 CFR 72.2 operating data submission requirement pursuant to 40 CFR 96.375(b)(1). (This copy should be directed to the attention of Louis Nichols, whose contact information is provided below.)

EPA's determination relies on the accuracy and completeness of Citizens' September 25, 2013 petition and is appealable under 40 CFR Part 78. If you have any questions regarding this determination, please contact Louis Nichols at (202) 343-9008 or by e-mail at Nichols.Louis@epa.gov. Thank you for your continued cooperation.

Sincerely,

/s/

Reid P. Harvey, Director
Clean Air Markets Division

cc: Loretta Lehrman, EPA Region 5
Dave Cline, IDEM
Louis Nichols, EPA, CAMD