

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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JUN - 5 2002

OFFICE OF AIR AND RADIATION

Mr. Gary L. Fulks Designated Representative Associated Electric Cooperative, Inc. 2814 S. Golden, P.O. Box 754 Springfield, Missouri 65801-0754

RE: Part 75.66(c) - Petition for Use of Alternative Reference Method Not Listed

Dear Mr. Fulks:

EPA has reviewed your February 4, 2002, petition requesting approval of alternative methods to those referenced under Sections 2.3.3 and 2.3.4 of Appendix D of part 75 for analyzing sulfur content and gross calorific value (GCV) in fuel burned in Associated Electric Cooperative, Inc.'s (AECI) gas-fired units. Those units are located at the Nodaway Power Plant (ORIS 7754), Essex Power Plant (ORIS 7749), St. Francis Power Plant (ORIS 7604), Chouteau Power Plant (ORIS 7757), and Holden Power Plant (ORIS 7848). EPA is approving the petition, as discussed below.

## Background

In part 75, gas-fired units may determine sulfur and GCV of their fuels using methods specified in Sections 2.3.3.1.2 and 2.3.4 of Appendix D. AECI petitions EPA to use the alternate methods ASTM D6667-01 "Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence" or ASTM D5504-01 "Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence" for sulfur analysis in lieu of methods specified in Appendix D (which include ASTM D-5504-94, an earlier version of ASTM D-5504-01). AECI also petitions to use GPA 2286-95 "Tentative Method of Extended Analysis for Natural Gas and Similar Gaseous Mixtures by Temperature Programmed Gas Chromatography" in lieu of GPA 2261-90 for GCV.

AECI requests the use of the alternative methods for sulfur analysis because its laboratory no longer uses the older methods specified in Appendix D. Failure to allow use of the alternatives would require AECI to perform duplicate analysis. AECI also notes in its petition that GPA 2286-95 may actually provide more accurate GCV results than the approved method presently in use.

## **EPA's Determination**

In considering AECI's request for the use of alternative methods, the Agency considered a number of factors. Most importantly, it was necessary to determine whether the proposed alternatives would offer at least equivalent levels of precision, reliability, accuracy and timeliness. In making this determination, consideration was given to method detection limits, the potential for interference from other compounds likely to be present, the adequacy of method quality assurance procedures, method availability, reproducibility, and recovery.

ASTM D6667-01, ASTM 5504-01, and GPA 2286-95 all should produce at least equivalent performance with respect to the above-mentioned criteria when applied to pipeline natural gas as the petitioner intends. Consequently, the Agency approves the use of these methods for this application in the context of Appendix D of part 75.

EPA's determination relies on the accuracy and completeness of the information in the February 4, 2002 petition and the supplementary material provided, and is appealable under part 78 of the Acid Rain regulations. If you have any further questions or concerns about this matter, please contact Gabrielle Stevens at (202) 564-2681 or stevens.gabrielle@epa.gov.

Sincerely,

Peter Tsirigotis, Acting Division Director

Clean Air Markets Division

cc:

Jon Knodel, Region 7
Peter Yronwode, State of Missouri
Daniel Hedrick, AECI