



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

June 17, 2015

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Jeremy Barrett
President and General Manager
Apache Nitrogen Products, Inc.
1436 South Apache Powder Road
Benson, AZ 85602-0700

Dear Mr. Barrett:

We are writing in response to your letter of May 8, 2015, in which you request the approval of alternative testing procedures for Apache Nitrogen Products, Inc. (ANPI) for the two existing nitric acid plants subject to 40 CFR part 60, Subpart G, Standards of Performance for Nitric Acid Plants (Subpart G). The Office of Air Quality Planning and Standards, as the delegated authority, must make the determination on any major alternatives to test methods and associated procedures required under 40 CFR parts 59, 60, 61, 63, and 65.

In your request, you explain that the two existing nitric acid plants (AOP-3 and AOP-4) at ANPI must comply to the nitrogen oxide (NO_x) emission limit of 1.5 kilogram per metric ton of acid produced (3.0 pounds per ton), the production being expressed as 100 percent nitric acid as found in 40 CFR 60.72. We understand the NO_x emissions from the AOP-3 unit are controlled by selective catalytic reaction (SCR) and the NO_x emissions from the AOP-4 are controlled by refrigerated extended absorption. You also state each unit utilizes hydrogen peroxide injection for further control of NO_x emissions during periods of start-up.

In addition to the NO_x emission limit, you explain the two existing nitric acid plants (AOP-3 and AOP-4) are subject to NO_x continuous emission monitoring requirements found in 40 CFR 60.73 and in ANPI's Arizona Department of Environmental Quality (ADEQ) Permit Number 57484. These regulations require ANPI to install, calibrate maintain, and operate a continuous emission monitoring system (CEMS) to measure NO_x and to meet Performance Specification 2 (40 CFR part 60, Appendix B). Performance Specification 2, section 7.4.2 specifies Method 7 (40 CFR part 60, Appendix A) as the applicable sampling methodology unless otherwise specified in an applicable subpart of the regulation. As found in 40 CFR 60.74 (c), the regulation provides Method 7A, 7B, 7C, or 7D (40 CFR part 60, Appendix A) as alternative methodologies. You believe these methodologies will not yield representative values due to the process variability and stratification concerns. To mitigate these concerns, you propose to use Method 7E (40 CFR part 60, Appendix A) coupled with the additional provisions found in 40 CFR 60.73a(b)(4) of 40 CFR part 60, Subpart Ga as an alternative method to certify the NO_x CEMS subject to the monitoring requirements of 40 CFR 60.73.

Since your requested alternative was promulgated on August 14, 2012 (77 FR 48433), and is generally applicable to the nitric acid plants that commence construction, modification, or reconstruction after October 14, 2011, we hereby approve use of Method 7E when coupled with the specific application instructions defined in 40 CFR 60.73a (b)(4) and excerpted below as an additional alternative to Method 7 under 40 CFR 60.74 (c) of subpart G.

The specific application instructions for Method 7E which must be followed are:

60.73a(b)(4) If you use EPA Reference Method 7E of Appendix A-4 of this part, you must mitigate loss of NO₂ in water according to the requirements in paragraphs (b)(4)(i), (ii), or (iii) of this section and verify performance by conducting the system bias checks required in EPA Reference Method 7E, section 8, of Appendix A-4 of this part according to (b)(4)(iv) of this section, or follow the dynamic spike procedure according to paragraph (b)(4)(v) of this section.

(i) For a wet-basis measurement system, you must measure and report temperature of sample line and components (up to analyzer inlet) to demonstrate that the temperatures remain above the sample gas dew point at all times during the sampling.

(ii) You may use a dilution probe to reduce the dew point of the sample gas.

(iii) You may use a refrigerated-type condenser or similar device (e.g. Permeation dryer) to remove condensate continuously from sample gas while maintaining minimal contact between condensate and sample gas.

(iv) If your analyzer measures nitric oxide (NO) and nitrogen dioxide (NO₂) separately, you must use both NO and NO₂ calibration gases. Otherwise, you must substitute NO₂ calibration gas for NO calibration gas in the performance of system bias checks.

(v) You must conduct dynamic spiking according to EPA Reference Method 7E, section 16.1, of Appendix A-4 of this part using NO₂ as the spike gas.

As it is reasonable that this approval be applicable to all nitric acid plants subject to 40 CFR part 60, Subpart G, we will be posting this letter on our website at <http://www.epa.gov/ttn/emc/approalt.html> for use by other interested parties.

If you should have any questions or require further information regarding our response to your request, you may contact Ned Shappley of my staff via telephone at 919-541-7903 or via email at shappley.ned@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Barrett Parker", with a long horizontal flourish extending to the right.

Barrett H. Parker, Acting Group Leader
Measurement Technology Group

cc: Ray Merrill, EPA/OAQPS/AQAD
Michael Orman, Arizona Department of Environmental Quality
Robin Segall, EPA/OAQPS/AQAD
Stanley Tong, EPA Region 9