



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

NOV 20 2013

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Peter Moore
Principal Engineer
Yorke Engineering, LLC
31726 Rancho Viejo Road
Suite 218
San Juan Capistrano, CA 92675

Dear Mr. Moore:

This letter addresses your September 20, 2013, request on behalf of the St. Bernardine Medical Center to use continuous emissions monitoring systems (CEMS) in place of prescribed test methods to demonstrate the initial and annual compliance of two Waukesha spark ignition, four stroke rich-burn natural gas fired internal combustion engines equipped with a non-selective catalyst reduction control device located at the St. Bernardine Medical Center in San Bernardino, California. We understand that the St. Bernardine hospital is an area source for hazardous air pollutants, and that the referenced engines are subject to 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Paragraph 63.6630(e) of Subpart ZZZZ requires an initial demonstration of compliance by showing a 75 percent reduction in emissions across the control device or an average carbon monoxide (CO) concentration of less than or equal to 270 ppm, dry, at 15 percent oxygen (O₂). The initial performance test must consist of at least three test runs conducted for at least 15 minutes each. The engines must also be capable of automatic shutdown whenever the catalytic control device inlet temperature exceeds 1250 °F. The annual demonstration of compliance prescribed in Paragraph 63.6640(c) of Subpart ZZZZ involves a repeat of the initial performance test.

The CO and O₂ CEMS installed on the referenced engines are required by a South Coast Air Quality Management District (SCAQMD) operating permit. The CEMSs average and record the CO concentration on a 15-minute dry basis corrected to 15 percent O₂. The SCAQMD permit limits the CO concentration to 75 ppm, dry, corrected to 15 percent O₂ on a continuous 15-minute average basis. These CEMS operate on analytical principles allowed in Methods 7E and 3A (40 CFR 60, Appendix A). They were initially certified through a relative accuracy test as prescribed in 40 CFR 60, Appendix B, or by similar relative accuracy procedures in SCAQMD Rules 218 and 218.1. Checks for calibration error within 5 percent at the low and span levels are

also required daily. Subsequent relative accuracy test audits (RATA) are required on a yearly basis.

We believe St. Bernardine Medical Center's use of the certified and quality assured CO and O₂ CEMS for demonstrating these engines' compliance with the CO limits will satisfy the requirements of Subpart ZZZZ. In addition, the more stringent SCAQMD limit should keep the engine emissions from approaching the federal emissions limit. Therefore, your request to use certified CEMS in place of the prescribed test methods to show initial and yearly compliance with the CO testing requirements in Subpart ZZZZ is approved.

Since this alternative method could be applicable to other similar facilities in this source category, we will be posting this letter on our website at <http://www.epa.gov/ttn/emc/approalt.html> for use by other interested parties, provided they meet the following criteria in addition to those specified previously in this letter:

- The CO and O₂ CEMS must be subject to an initial certification as prescribed in 40 CFR 60, Appendix B, or by the procedures in SCAQMD Rules 218 and 218.1 and subject to yearly RATA under 40 CFR 60, Appendix F, or similar requirements in a federally enforceable permit.
- The CO and O₂ CEMS are required to be operated and maintained in a manner consistent with the requirements of 40 CFR 63, section 63.8(c), including calibration on a daily basis with both a zero/low level and a high level calibration gas in relation to the span value with a calibration error specification at least as stringent as ± 5 percent of span.
- The CO and O₂ CEMS averaging time is consistent with that specified in 40 CFR 63, Subpart ZZZZ, for the CO emission limit.

If you have questions or would like to discuss the matter further, please call Foston Curtis at (919) 541-1063, or you may e-mail him at curtis.foston@epa.gov.

Sincerely,



Conniesue B. Oldham, Ph.D., Group Leader
Measurement Technology Group

cc: Lisa Beckham, EPA Region 9 (beckham.lisa@epa.gov)
Foston Curtis (curtis.foston@epa.gov)
Mike Garibay, SCAQMD (mgaribay@aqmd.gov)
Melanie King (king.melanie@epa.gov)