



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

NOV 8 2012

Mr. Michael Brack
Derenzo and Associates, Inc.
39395 Schoolcraft Road
Livonia, MI 48150

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Dear Mr. Brack:

This letter is in response to your email request of October 12, 2012, for approval of an alternative to the use of Method 25A and Method 18 to measure methane and non-methane organic compound (NMOC) emissions from reciprocating internal combustion engines (RICE), as required in 40 CFR 60, Subpart JJJJ. You also asked to use the Thermo-Electron Model 55I (TECO-55I) as an alternative to Method 25A and Method 18 for measurement of methane and NMOC under 40 CFR Part 63, Subpart ZZZZ.

You requested approval to use the TECO-55I as an alternative in light of our previous alternative test method approvals (ALT-066 and ALT-078) for use of the Thermo-Electron Model 55C (TECO-55C) to measure methane and NMOC from RICE under 40 CFR 60, Subpart JJJJ. You have indicated that the TECO-55C analyzers are no longer manufactured, and have been replaced by a newer design identified as the TECO Model 55I. You also noted that the TECO-55I uses gas chromatography to separate methane from the NMOC in the emissions gas stream, and flame ionization detection to measure methane separately from NMOC in essentially the same manner as the TECO-55C.

We have reviewed your request and the associated rule language. We note that there is no requirement in 40 CFR Part 63, Subpart ZZZZ to measure NMOC, and thus, we will not address that portion of your request. We do agree that an alternative testing approach using the TECO-55I to measure methane and NMOC is appropriate, and we are approving its use under 40 CFR 60, Subpart JJJJ, assuming the applicable requirements in Method 25A are followed. We confirmed with the manufacturer that the TECO-55I is a redesign of TECO-55C and is optimized for low concentration NMOC measurements. Therefore, you must follow the relevant requirements in Method 25A when you use the TECO-55I for measurements under 40 CFR 60, Subpart JJJJ. Specifically, you must heat all sampling components leading to the analyzer to $>110^{\circ}\text{C}$ (220°F) throughout the sampling period, unless safety reasons are cited as required in Section 5.2 of Method 25A. You must also follow the appropriate test procedure, calibration, and standardization requirements in sections 8, 9, and 10 of Method 25A to ensure that linearity, calibration drift error, and drift are within Method 25A limits.

We will announce on EPA's website (at <http://www.epa.gov/ttn/emc/approalt.html>) that our approval of this alternative testing approach to Method 25A and Method 18 for NMOC measurement is broadly applicable to testing of reciprocating internal combustion engine emissions under 40 CFR 60, Subpart JJJJ.

If you need further assistance, please contact Ray Merrill of my staff at (919) 541-5225 or merrill.raymond@epa.gov

Sincerely,

A handwritten signature in blue ink that reads "Connie Oldham".

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