



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

DEC 11 2012

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Mr. Timothy J. Senger, Sr. Project Manager  
TRC Environmental Corporation (TRC)  
Wannalancit Mills  
650 Suffolk Street, Suite 200  
Lowell, MA 01854

Dear Mr. Senger:

This letter is a revision to our alternative test method approval (Alt-97 dated November 8, 2012) in response to your request of September 6, 2012. In that request, you asked for approval of an alternative to the use of Method 25A in combination with Method 18 to measure methane and non-methane organic compounds (NMOC) at Municipal Solid Waste Landfills under 40 CFR 60, Subpart WWW, Sections 60.752 (b)(2) (iii)(B) and 60.754(d). More specifically, your request addressed the measurement of flare outlet emissions following Section 60.754(d) where the rule states Method 25A may be used "in cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane)." With today's letter, we are clarifying the broadly applicable approval to use the TECO-55C to measure methane and NMOC under 40 CFR 60, Subpart WWW with detailed references to the requirements for calibration and quality control when this alternative is used.

The alternative testing approach you requested involves use of the Thermo-Environmental Model 55C (TECO-55C) methane/non-methane analyzer to measure and quantify the NMOC emissions from bypass flares burning landfill gas, digester gas, or pipeline natural gas. You noted that the TECO 55C uses gas chromatography (GC) to separate methane from the NMOC in the emissions gas stream, and flame ionization to measure methane separately from NMOC. You cited EPA's approval of alternative testing approaches (ALT-066 and ALT-078) related to NMOC and methane measurement requirements under 40 CFR Part 60, Subpart JJJJ for internal combustion engines as similar applications to your request related to Subpart WWW.

We have reviewed your request and the associated rule language and we agree that an alternative testing approach using GC to separate and measure methane and GC back-flush procedures to measure NMOC in post combustion emissions gas from bypass flares is acceptable. With this letter, we are approving the use of GC to separate and measure methane and GC back-flush for measurement of methane and NMOC from these bypass flares exhaust emissions under 40 CFR 60, Subpart WWW with the following caveats:

- You must heat all sampling components leading to the analyzer to greater than 110°C (220°F) throughout the sampling period, unless safety reasons are cited as required in Section 5.2 of Method 25A.
- You must calibrate your instrument with methane and the required NMOC hydrocarbon in Method 25A or the applicable rule.

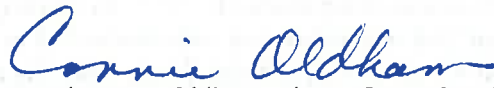
- You must also follow the appropriate procedures in Sections 8, 9, and 10 of Method 25A to ensure linearity, calibration drift error, and drift are within Method 25A limits.
- You must report your calibration results including demonstration of methane to nonmethane organic separation.

This approval does not include or approve using the GC to separate and measure methane and GC back-flush procedures to measure methane and/or NMOC at inlet locations as required in 40 CFR 60, Subpart WWW for the purpose of determining destruction efficiency.

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

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

Sincerely,



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

cc: Carol Lynes, EPA Region 2  
Michael Klein, New Jersey Department of Environmental Protection