



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
National Exposure Research Laboratory
Research Triangle Park, NC 27711

April 30, 2009

OFFICE OF
RESEARCH AND DEVELOPMENT

Frank Duckett
Thermo Fisher Scientific
Air Quality Instruments
Environmental Instruments Division
27 Forge Parkway
Franklin, MA 02038

Re: Request for modification of Reference Method: RFCA-0981-054

Dear Mr. Duckett:

This letter is in response to your letter dated February 11, 2009 requesting approval for modification of Reference Method: RFCA-0981-054. The modification includes an addition of a Perma Pure permeation dryer to the sample inlet, utilization of gold substrate on the chamber mirrors, addition of a zero air purge to correlation wheel assembly, improvement of temperature control, and addition of a user selectable auto zero program to the software.

This modification is hereby approved in accordance with 40 CFR 53.14 (Modification of a Reference or Equivalent Method). Notice of the approval of the modification will not be published in the *Federal Register*, but the description of the method in the published "List of Designated Reference and Equivalent Methods" will be revised to read:

Description: *Thermo Electron/Thermo Environmental Instruments Models 48, 48C, 48i, 48iTLE*

Automated Reference Method: RFCA-0981-054

"Thermo Electron or Thermo Environmental Instruments, Inc. **Model 48** Gas Filter Correlation Ambient CO Analyzer," operated on the 0-50 ppm range, with a time constant setting of 30 seconds, with or without any of the following options:

- 48-001 Teflon Particulate Filter 48-010 Internal Zero Air Package
- 48-002 19 Inch Rack Mount 48-488 GPIB (General Purpose Interface Bus) EEEE-488
- 48-003 Internal Zero/Span Valves with Remote Activation

"Thermo Electron or Thermo Environmental Instruments, Inc. **Models 48C or 48i** Gas Filter Correlation Ambient CO Analyzer," operated on any measurement range between 0-1 ppm and 0-100 ppm, with any averaging time setting from 10 to 300 seconds, with temperature and/or pressure compensation on or off, operated at temperatures between 20°C and 30°C, with or without any of the following options: Teflon particulate filter, Internal zero air scrubber, I/O Expansion board; **Model 48C:** Carrying handle, 4-20 mA current output, Rack mounts, RS-232 interface, Internal zero/span and sample/calibration solenoid valves, RS-485 interface, Internal

zero/span and sample/calibration solenoid valves with remote I/O activation; “**Model 48i Trace Level-Enhanced Gas Filter Correlation Ambient CO Analyzer**”: operated between 0-1 and 100 ppm with averaging time from 10 to 300 seconds, operated at temperatures between 20° C and 30° C at line voltages of 90 -110, 105 – 125, and 210-250 VAC @ 50/60 Hz, with or without any of the following options: rack mounts, Teflon® particulate filter, I/O Expansion board.”

The EPA encourages technical improvements to designated methods and appreciates your cooperation in seeking approval for this upgrade modification.

Sincerely,

s. m. kaushik

Surender M. Kaushik, PhD
Manager, Reference and Equivalent Methods Program
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