



FORM 1: Linearity and Interference Tests Recordkeeping Form For Portable Analyzers

SCAQMD RULE 1110.2 Emissions from Gaseous and Liquid-Fueled Engines

DATE: _____ TIME (start/stop): _____ / _____ NAME: _____

ANALYZER (Make/Model): _____ Analyzer S/N: _____

OPERATOR: _____

Dates of Last Cell Replacements: _____ CO: _____ NO: _____ NO₂: _____ O₂: _____

Linearity Check

Date of Last Linearity Check: _____

Requirements:

- * Linearity less than or equal to 3% of the mid span gas concentration
- * Linearity check must be conducted within 12 months of the test date and when an electrochemical cell is replaced.

Interference Check

Date of Last Interference Check: _____

Requirements:

- * Interference response less than or equal to 5% of span gas concentrations
- * Interference check must be conducted within 12 months of the test date and when an electrochemical cell is replaced.

Date of Linearity Check:

Constituent	CO (ppm)	NO (ppm)	NO ₂ (ppm)	O ₂ (%)
Zero Gas				
Mid Span Gas				
High Span Gas				
Reading, Zero				
Reading, Mid				
Reading, High				
Linearity, E _{LIN} , %				
Slope =				
Calculated Mid				

Date of CO Interference Check:

Constituent	CO (ppm)	NO (ppm)	NO ₂ (ppm)
Interferent Span Gas Value, C _{NOG} & C _{NO2G}			
CO Response to NO, R _{CO-NO}			
CO Response to NO ₂ , R _{CO-NO2}			
CO Interference, I _{CO} %			

$$I_{CO} = [(R_{CO-NO} / C_{NOG}) + (R_{CO-NO2} / C_{NO2G})] \times 100$$

where: I_{CO} = CO interference response (percent)

R_{CO-NO} = CO response to NO span gas (ppm CO)

C_{NOG} = concentration of NO span gas (ppm NO)

R_{CO-NO2} = CO response to NO₂ span gas (ppm CO)

C_{NO2G} = concentration of NO₂ span gas (ppm NO₂)

Calculations for Linearity are described in Section 3.6 of the Periodic Monitoring Protocol

CERTIFICATION: Based on the information and belief formed after reasonable inquiry, I certify that the statements and information contained in this report are true, accurate, and complete.

Test Conducted By

Signature

Title

Date