

COMPLIANCE ASSISTANCE BULLETIN
July 2015

Portable Analyzer Requirements

The San Joaquin Valley Air Pollution Control District (District) may require the utilization of a portable analyzer to measure emissions including, but not limited to, nitrogen oxides (NO_x) and/or carbon monoxide (CO) to determine compliance with District Rules and permit conditions.

Any portable analyzer that is utilized to monitor emissions must meet specific standards as noted in [Permitting Policy SSP-1105 Section X](#) and [SSP-1810 Section XI](#). In addition to information in the following table, the minimum upper limit of the measurement range shall be equal to 1.5 times the emission limit for the species being measured.

Detector	Resolution*	Error	Max. Response Time
CO	high 20 ppm low 2 ppm	± 5%	1 min
O ₂	0.1%	larger of ± 4% of reading or 0.2% O ₂	1 min
NO _x	2 ppm	± 5%	1 min

*Resolution is the smallest increment of output that the gas detector will provide.

Except for oilfield steam generators and heater treaters, *the sampling port must be located at a point greater than or equal to the length of 2 stack diameters downstream of any disturbance and 1/2 of the stack diameter upstream of any disturbance or outlet.* The sampling port opening around the sampling probe must be thoroughly sealed to prevent air and exhaust leaks that may cause a dilution to the gas stream.

Prior to initiating an emission concentration check, the exhaust flow in the stack must be checked for stratification. This shall be accomplished by sampling at 3 separate locations within the same plane across the stack for at least 1 minute each. If any of the emission concentration values differ by >10% from the mean, then the stack is considered stratified. If stratified, emission concentration measurements must be taken using at least 5 readings evenly spaced out over a consecutive 15-minute period, with at least one reading taken at each of the 3 locations in the stack used to determine stratification.

If there is no stratification in the stack, there are two options for the facility. The emission readings may be averaged over a 15 consecutive-minute period by taking a cumulative 15 consecutive-minute sample reading. Alternatively, facilities may take at least five (5) readings, evenly spaced out over the 15 consecutive-minute period and provide the average of the readings. After 1 minute (or after the reading stabilizes, whichever is earlier), the 15 consecutive minute period shall begin.

If you have questions you may contact your regional District office at the number listed below.