

California Air Resources Board

Performance Audit Validation Template

Instrument/Criteria	Control Limit	Warning
Gaseous Analyzers (Criteria and Non-Criteria, except Ozone)*	±15%	±10%
Ozone Analyzers*	±10%	±7%
PM10 (Dichot, Continuous) PM10 (Filter Based Low Volume, Pb Low Volume)**	±10%	±7%
PM10 (Filter Based High Volume)	±7% of Transfer Standard ±10% from Design flow rate	±5%
PM10-2.5 (Filter Based Low Volume, PMcoarse) PM10 (Filter Based Low Volume, Pb Low Volume)**	±4% of Transfer Standard ±5% from Design flow rate	none
PM2.5 (Filter Based, Continuous)	±4% of Transfer Standard ±5% from Design flow rate	none
TSP (Pb High Volume)	±7% of Transfer Standard	±5%
Xontech 920/924 Toxic and Carbonyl samplers	±10%	±7%

* Audit levels 1 and 2 are subject to the following acceptance criteria based on EPA guidance:

- o For O₃, SO₂, and NO₂: ± 1.5 ppb difference or ± 15 percent difference, whichever is greater.
- o For CO: ± 0.03 ppm difference or ± 15 percent difference, whichever is greater.

* Annual Performance Evaluations are an operational criteria, and exceedances (especially at lower levels) do not automatically invalidate the data.

** Criteria based on data usage

Criteria for Meteorological (MET) Sensors

Ambient Temperature	±0.5° Celsius
Barometric Pressure	±2.25mm of Mercury (mmHg)
Wind Direction	≤ 5° combined accuracy and orientation error
Wind Direction (starting threshold)	≤ 0.5m/s
Wind Speed	±0.25m/s between 0.5 and 5m/s, and < 5% difference above 5m/s (not to exceed 2.5m/s difference)
Wind Speed (starting threshold)	≤ 0.5m/s