Environmental Protection Agency

§ 86.315–79  General analyzer specifications.

(a) Analyzer response time. The analyzer must respond to an instantaneous step change at the entrance to the analyzer with a response equal to 95 percent of that step change in 6.0 seconds or less on all ranges used. The step change shall be at least 60 percent of full-scale chart deflection. For NOx analyzers using a water trap, the response time increase due to the water trap and associated plumbing need not be included in the analyzer response time.

(b) Precision. The precision of the analyzer must be no greater than ±1 percent of full-scale concentration for each range used above 155 ppm (or ppm C), or ±2 percent for each range used below 155 ppm (or ppm C). The precision is defined as 2.5 times the standard deviation(s) of 10 repetitive responses to a given calibration or span gas.

(c) Noise. The analyzer peak-to-peak response to zero and calibration or span gases over any 10-second period shall not exceed 2 percent of full-scale chart deflection on all ranges used.

(d) Zero drift. The analyzer zero-response drift during a 1-hour period shall be less than 2 percent of full-scale chart deflection on the lowest range used. The zero-response is defined as the mean response including noise to a zero-gas during a 30-second time interval.

(e) Span drift. The analyzer span drift during a 1-hour period shall be less than ±1 percent of the full-scale value of the electronic device.