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(C) Both P_{20} and P_{80} must be equal to or less than the precision limits specified in table B–1 to subpart B of part 53 to pass the test for precision.

FIGURE B–1 TO SUBPART B OF PART 53—EXAMPLE

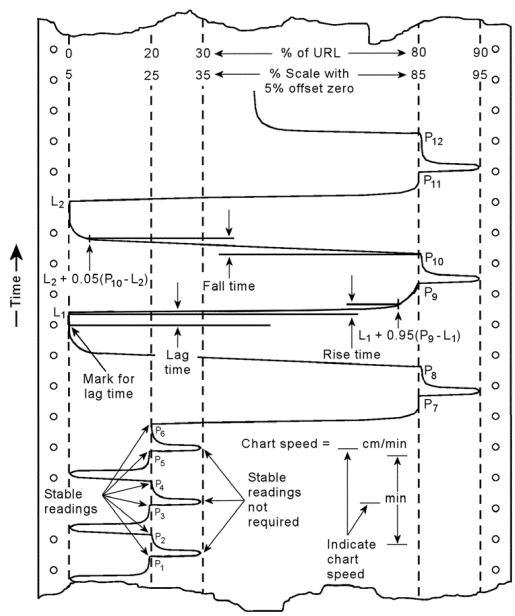

Figure B-1 to Subpart B of Part 53--Example showing the nature of the tracing obtained during the test sequence for 24-hour drift, lag time, rise time, fall time, and precision. The time scale has been greatly compressed.

TABLE B-1 TO SUBPART B OF PART 53—PERFORMANCE LIMIT SPECIFICATIONS FOR AUTOMATED METHODS

Performance parameter	Units[1]	SO_2		O_3 (Std. range)	CO		NO_2 (Std. range)	Definitions and test procedures
		Std. range[3]	Lower range[2,3]		Std. range[3]	Lower range[2,3]		
1. Range	ppm	0-0.5	<0.5	0-0.5	0-50	<50	0-0.5	Sec. 53.23(a).
2. Noise	ppm	0.001	0.0005	0.005	0.2	0.1	0.005	Sec. 53.23(b).
3. Lower detectable limit	ppm	0.002	0.001	0.010	0.4	0.2	0.010	Sec. 53.23(c).
4. Interference equivalent								
Each interferent	ppm	±0.005	[4]±0.005	±0.02	±1.0	±0.5	±0.02	Sec. 53.23(d).
Total, all interferents	ppm	---	---	0.06	---		0.04	Sec. 53.23(d).
5. Zero drift, 12 and 24 hour	ppm	±0.004	±0.002	±0.02	±0.5	±0.3	±0.02	Sec. 53.23(e).
6. Span drift, 24 hour								
20% of upper range limit	Percent	---	---	±20.0	---	---	±20.0	Sec. 53.23(e)
80% of upper range limit	Percent	±3.0	±3.0	±5.0	±2.0	±2.0	±5.0	Sec. 53.23(e).
7. Lag time	Minutes	2	2	20	2.0	2.0	20	Sec. 53.23(e).
8. Rise time	Minutes	2	2	15	2.0	2.0	15	Sec. 53.23(e).
9. Fall time	Minutes	2	2	15	2.0	2.0	15	Sec. 53.23(e).
10. Precision								
20 % of upper range limit	ppm	---	---	0.010	---	---	0.020	Sec. 53.23(e).
	Percent	2	2	---	1.0	1.0	---	Sec. 53.23(e).
80 % of upper range limit	ppm	---	---	0.010	---	---	0.030	Sec. 53.23(e).
	Percent	2	2	---	1.0	1.0	---	Sec. 53.23(e).

1. To convert from parts per million (ppm) to $\mu g/m^3$ at 25 °C and 760 mm Hg, multiply by M/0.02447, where M is the molecular weight of the gas. Percent means percent of the upper measurement range limit.
2. Tests for interference equivalent and lag time do not need to be repeated for any lower range provided the test for the standard range shows that the lower range specification (if applicable) is met for each of these test parameters.
3. For candidate analyzers having automatic or adaptive time constants or smoothing filters, describe their functional nature, and describe and conduct suitable tests to demonstrate their function aspects and verify that performances for calibration, noise, lag, rise, fall times, and precision are within specifications under all applicable conditions. For candidate analyzers with operator-selectable time constants or smoothing filters, conduct calibration, noise, lag, rise, fall times, and precision tests at the highest and lowest settings that are to be included in the FRM or FEM designation.
4. For nitric oxide interference for the SO_2 UVF method, interference equivalent is ±0.0003 ppm for the lower range.