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INFORMATION
GPO

Primary Partical Mean Size[a] (μm)	Full Wind Tunnel Test		Inlet Aspiration Test		Static Fractionator Test	Volatility Test
	2 km/hr	24 km/hr	2 km/hr	24 km/hr		
Polydisperse Glycerol Aerosol				L		

[a] Aerodynamic diameter.
S = Solid particles.
L = Liquid particles.

TABLE F–3 TO SUBPART F OF PART 53—CRITICAL PARAMETERS OF IDEALIZED AMBIENT PARTICLE SIZE DISTRIBUTIONS

Idealized Distribution	Fine Particle Mode			Coarse Particle Mode			$PM_{2.5}/PM_{10}$ Ratio	FRM Sampler Expected Mass Conc. (μg/m³)
	MMD (μm)	Geo. Std. Dev.	Conc. (μg/m³)	MMD (μm)	Geo. Std. Dev.	Conc. (μg/m³)		
Coarse	0.50	2	12.0	10	2	88.0	0.27	13.814
"Typical"	0.50	2	33.3	10	2	66.7	0.55	34.284
Fine	0.85	2	85.0	15	2	15.0	0.94	78.539

TABLE F–4 TO SUBPART F OF PART 53—ESTIMATED MASS CONCENTRATION MEASUREMENT OF $PM_{2.5}$ FOR IDEALIZED COARSE AEROSOL SIZE DISTRIBUTION

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	6.001		1.000	6.001	6.001
0.625		2.129		0.999	2.129	2.127
0.750		0.982		0.998	0.982	0.980
0.875		0.730		0.997	0.730	0.728
1.000		0.551		0.995	0.551	0.548
1.125		0.428		0.991	0.428	0.424
1.250		0.346		0.987	0.346	0.342
1.375		0.294		0.980	0.294	0.288
1.500		0.264		0.969	0.264	0.256
1.675		0.251		0.954	0.251	0.239
1.750		0.250		0.932	0.250	0.233
1.875		0.258		0.899	0.258	0.232
2.000		0.272		0.854	0.272	0.232
2.125		0.292		0.791	0.292	0.231
2.250		0.314		0.707	0.314	0.222
2.375		0.339		0.602	0.339	0.204
2.500		0.366		0.480	0.366	0.176
2.625		0.394		0.351	0.394	0.138
2.750		0.422		0.230	0.422	0.097
2.875		0.449		0.133	0.449	0.060
3.000		0.477		0.067	0.477	0.032
3.125		0.504		0.030	0.504	0.015
3.250		0.530		0.012	0.530	0.006
3.375		0.555		0.004	0.555	0.002
3.500		0.579		0.001	0.579	0.001
3.625		0.602		0.000000	0.602	0.000000
3.750		0.624		0.000000	0.624	0.000000
3.875		0.644		0.000000	0.644	0.000000
4.000		0.663		0.000000	0.663	0.000000
4.125		0.681		0.000000	0.681	0.000000
4.250		0.697		0.000000	0.697	0.000000
4.375		0.712		0.000000	0.712	0.000000
4.500		0.726		0.000000	0.726	0.000000
4.625		0.738		0.000000	0.738	0.000000
4.750		0.750		0.000000	0.750	0.000000
4.875		0.760		0.000000	0.760	0.000000
5.000		0.769		0.000000	0.769	0.000000
5.125		0.777		0.000000	0.777	0.000000
5.250		0.783		0.000000	0.783	0.000000
5.375		0.789		0.000000	0.789	0.000000

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
5.500		0.794		0.000000	0.794	0.000000
5.625		0.798		0.000000	0.798	0.000000
5.75		0.801		0.000000	0.801	0.000000
		$C_{sam(exp)}$=			$C_{ideal(exp)}$=	13.814

TABLE F–5 TO SUBPART F OF PART 53—ESTIMATED MASS CONCENTRATION MEASUREMENT OF $PM_{2.5}$ FOR IDEALIZED ''TYPICAL'' COARSE AEROSOL SIZE DISTRIBUTION

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	16.651		1.000	16.651	16.651
0.625		5.899		0.999	5.899	5.893
0.750		2.708		0.998	2.708	2.703
0.875		1.996		0.997	1.996	1.990
1.000		1.478		0.995	1.478	1.471
1.125		1.108		0.991	1.108	1.098
1.250		0.846		0.987	0.846	0.835
1.375		0.661		0.980	0.661	0.648
1.500		0.532		0.969	0.532	0.516
1.675		0.444		0.954	0.444	0.424
1.750		0.384		0.932	0.384	0.358
1.875		0.347		0.899	0.347	0.312
2.000		0.325		0.854	0.325	0.277
2.125		0.314		0.791	0.314	0.248
2.250		0.312		0.707	0.312	0.221
2.375		0.316		0.602	0.316	0.190
2.500		0.325		0.480	0.325	0.156
2.625		0.336		0.351	0.336	0.118
2.750		0.350		0.230	0.350	0.081
2.875		0.366		0.133	0.366	0.049
3.000		0.382		0.067	0.382	0.026
3.125		0.399		0.030	0.399	0.012
3.250		0.416		0.012	0.416	0.005
3.375		0.432		0.004	0.432	0.002
3.500		0.449		0.001	0.449	0.000000
3.625		0.464		0.000000	0.464	0.000000
3.750		0.480		0.000000	0.480	0.000000
3.875		0.494		0.000000	0.494	0.000000
4.000		0.507		0.000000	0.507	0.000000
4.125		0.520		0.000000	0.520	0.000000
4.250				0.000000	0.532	0.000000
4.375				0.000000	0.543	0.000000
4.500				0.000000	0.553	0.000000
4.625				0.000000	0.562	0.000000
4.750				0.000000	0.570	0.000000
4.875				0.000000	0.577	0.000000
5.000				0.000000	0.584	0.000000
5.125				0.000000	0.590	0.000000
5.250				0.000000	0.595	0.000000
5.375				0.000000	0.599	0.000000
5.500				0.000000	0.603	0.000000
5.625				0.000000	0.605	0.000000
5.75				0.000000	0.608	0.000000
		$C_{sam(exp)}$=			$C_{ideal(exp)}$=	34.284