

Appendix B
Alternative Fast-Pass IM240 Standards

**Alternative Fast-Pass IM240 Standards
Corresponding to Composite Start-up Emission Standards
in §85.2205(a)(2)(i) and §85.2205(a)(2)(ii)
Light Duty Vehicles**

Sec	Low Altitude			Low Altitude			Low Altitude			High Altitude		
	1981-1982			1983-1990			1991-1995			1982		
	HC	CO	NOx	HC	CO	NOx	HC	CO	NOx	HC	CO	NOx
30	0.330	4.189	0.250	0.330	1.941	0.251	0.174	1.307	0.222	0.330	7.391	0.250
31	0.342	4.278	0.267	0.342	1.983	0.268	0.179	1.329	0.246	0.342	7.667	0.267
32	0.353	4.366	0.283	0.353	2.025	0.285	0.184	1.350	0.270	0.353	7.944	0.283
33	0.364	4.455	0.300	0.365	2.067	0.302	0.189	1.372	0.294	0.364	8.220	0.300
34	0.375	4.544	0.316	0.376	2.108	0.320	0.194	1.394	0.318	0.375	8.497	0.316
35	0.386	4.633	0.333	0.388	2.150	0.337	0.199	1.416	0.342	0.386	8.773	0.333
36	0.398	4.728	0.336	0.399	2.230	0.339	0.201	1.453	0.345	0.398	9.011	0.336
37	0.409	4.823	0.339	0.410	2.310	0.342	0.203	1.490	0.348	0.409	9.249	0.339
38	0.420	4.917	0.342	0.420	2.390	0.344	0.205	1.527	0.350	0.420	9.488	0.342
39	0.431	5.012	0.345	0.431	2.471	0.347	0.207	1.565	0.353	0.431	9.726	0.345
40	0.443	5.107	0.348	0.442	2.551	0.349	0.209	1.602	0.356	0.443	9.964	0.348
41	0.458	5.429	0.371	0.458	2.738	0.373	0.214	1.642	0.373	0.458	10.527	0.371
42	0.474	5.751	0.394	0.473	2.926	0.397	0.219	1.682	0.390	0.474	11.090	0.394
43	0.489	6.073	0.418	0.489	3.114	0.422	0.224	1.722	0.407	0.489	11.652	0.418
44	0.505	6.395	0.441	0.505	3.302	0.446	0.228	1.763	0.425	0.505	12.215	0.441
45	0.521	6.717	0.465	0.520	3.489	0.470	0.233	1.803	0.442	0.521	12.778	0.465
46	0.535	6.985	0.480	0.536	3.589	0.486	0.238	1.867	0.465	0.535	13.265	0.480
47	0.550	7.254	0.496	0.552	3.688	0.501	0.244	1.932	0.487	0.550	13.751	0.496
48	0.565	7.522	0.512	0.568	3.787	0.517	0.250	1.997	0.510	0.565	14.238	0.512
49	0.580	7.791	0.527	0.584	3.887	0.533	0.255	2.061	0.533	0.580	14.724	0.527
50	0.594	8.060	0.543	0.600	3.986	0.549	0.261	2.126	0.555	0.594	15.211	0.543
51	0.611	8.511	0.567	0.617	4.029	0.571	0.268	2.152	0.573	0.611	15.550	0.567
52	0.628	8.962	0.590	0.633	4.072	0.594	0.275	2.179	0.590	0.628	15.889	0.590
53	0.644	9.413	0.613	0.649	4.115	0.616	0.282	2.205	0.608	0.644	16.228	0.613
54	0.661	9.865	0.637	0.665	4.157	0.638	0.290	2.232	0.625	0.661	16.567	0.637
55	0.678	10.316	0.660	0.681	4.200	0.661	0.297	2.258	0.643	0.678	16.907	0.660
56	0.691	10.818	0.675	0.696	4.263	0.676	0.302	2.348	0.654	0.691	17.199	0.675
57	0.705	11.320	0.689	0.710	4.326	0.691	0.306	2.437	0.666	0.705	17.492	0.689
58	0.718	11.822	0.703	0.725	4.388	0.707	0.311	2.526	0.677	0.718	17.785	0.703
59	0.731	12.325	0.718	0.740	4.451	0.722	0.316	2.616	0.688	0.731	18.078	0.718
60	0.745	12.827	0.732	0.754	4.514	0.737	0.320	2.705	0.700	0.745	18.371	0.732
61	0.758	13.228	0.743	0.767	4.589	0.748	0.323	2.726	0.707	0.758	18.609	0.743
62	0.772	13.629	0.754	0.780	4.664	0.758	0.326	2.746	0.714	0.772	18.847	0.754
63	0.786	14.029	0.764	0.794	4.740	0.769	0.329	2.767	0.722	0.786	19.085	0.764
64	0.799	14.430	0.775	0.807	4.815	0.780	0.332	2.787	0.729	0.799	19.323	0.775
65	0.813	14.831	0.786	0.820	4.891	0.790	0.335	2.808	0.736	0.813	19.562	0.786
66	0.827	15.046	0.794	0.833	4.945	0.799	0.340	2.812	0.742	0.827	19.887	0.794
67	0.841	15.261	0.803	0.846	4.999	0.808	0.345	2.816	0.747	0.841	20.213	0.803

68	0.855	15.476	0.811	0.859	5.053	0.817	0.350	2.820	0.753	0.855	20.539	0.811
69	0.869	15.692	0.820	0.872	5.107	0.826	0.355	2.825	0.758	0.869	20.865	0.820
70	0.883	15.907	0.828	0.885	5.162	0.835	0.360	2.829	0.764	0.883	21.191	0.828
71	0.894	16.118	0.838	0.896	5.226	0.846	0.364	2.847	0.783	0.894	21.396	0.838
72	0.905	16.330	0.848	0.906	5.291	0.857	0.367	2.865	0.802	0.905	21.602	0.848
73	0.917	16.542	0.858	0.917	5.356	0.868	0.371	2.884	0.822	0.917	21.808	0.858
74	0.928	16.753	0.868	0.928	5.421	0.878	0.375	2.902	0.841	0.928	22.013	0.868
75	0.939	16.965	0.878	0.939	5.486	0.889	0.378	2.921	0.860	0.939	22.219	0.878
76	0.953	17.199	0.891	0.952	5.553	0.900	0.387	2.982	0.874	0.953	22.685	0.891
77	0.967	17.432	0.904	0.965	5.620	0.911	0.396	3.044	0.888	0.967	23.151	0.904
78	0.981	17.666	0.917	0.978	5.687	0.922	0.405	3.106	0.902	0.981	23.617	0.917
79	0.994	17.900	0.930	0.991	5.754	0.933	0.414	3.167	0.916	0.994	24.083	0.930
80	1.008	18.133	0.944	1.004	5.821	0.944	0.423	3.229	0.930	1.008	24.549	0.944
81	1.019	18.182	0.951	1.015	5.842	0.951	0.428	3.240	0.945	1.019	24.570	0.951
82	1.031	18.231	0.958	1.026	5.863	0.959	0.432	3.250	0.959	1.031	24.591	0.958
83	1.042	18.280	0.965	1.037	5.883	0.966	0.437	3.261	0.973	1.042	24.612	0.965
84	1.053	18.329	0.972	1.048	5.904	0.973	0.441	3.271	0.987	1.053	24.633	0.972
85	1.065	18.378	0.979	1.059	5.925	0.980	0.445	3.281	1.002	1.065	24.654	0.979
86	1.072	18.393	0.980	1.067	5.970	0.981	0.448	3.290	1.003	1.072	24.666	0.980
87	1.079	18.408	0.981	1.075	6.015	0.982	0.452	3.298	1.004	1.079	24.678	0.981
88	1.086	18.423	0.982	1.083	6.060	0.982	0.455	3.306	1.005	1.086	24.690	0.982
89	1.093	18.438	0.983	1.091	6.105	0.983	0.458	3.315	1.006	1.093	24.703	0.983
90	1.099	18.453	0.983	1.099	6.151	0.984	0.462	3.323	1.007	1.099	24.715	0.983
91	1.107	18.467	0.984	1.106	6.185	0.985	0.463	3.360	1.008	1.107	24.737	0.984
92	1.114	18.481	0.985	1.114	6.219	0.986	0.464	3.397	1.008	1.114	24.758	0.985
93	1.121	18.495	0.985	1.122	6.253	0.986	0.465	3.434	1.009	1.121	24.780	0.985
94	1.128	18.509	0.986	1.129	6.287	0.987	0.466	3.470	1.009	1.128	24.801	0.986
95	1.135	18.523	0.986	1.137	6.321	0.988	0.468	3.507	1.010	1.135	24.823	0.986
96	1.149	18.681	0.992	1.150	6.489	0.993	0.472	3.536	1.011	1.149	25.193	0.992
97	1.162	18.840	0.997	1.163	6.657	0.999	0.477	3.565	1.012	1.162	25.563	0.997
98	1.176	18.998	1.002	1.176	6.825	1.004	0.481	3.594	1.013	1.176	25.933	1.002
99	1.189	19.157	1.008	1.189	6.992	1.009	0.486	3.623	1.014	1.189	26.303	1.008
100	1.203	19.315	1.013	1.202	7.160	1.014	0.490	3.651	1.015	1.203	26.672	1.013
101	1.223	20.090	1.049	1.224	7.269	1.049	0.499	3.685	1.042	1.223	27.821	1.049
102	1.244	20.864	1.085	1.245	7.378	1.084	0.509	3.719	1.069	1.244	28.969	1.085
103	1.264	21.639	1.121	1.266	7.487	1.119	0.518	3.753	1.097	1.264	30.117	1.121
104	1.285	22.414	1.157	1.287	7.596	1.154	0.527	3.787	1.124	1.285	31.265	1.157
105	1.305	23.189	1.193	1.309	7.705	1.189	0.537	3.821	1.151	1.305	32.414	1.193
106	1.319	23.461	1.224	1.323	7.835	1.215	0.541	3.842	1.194	1.319	33.103	1.224
107	1.333	23.733	1.255	1.338	7.965	1.241	0.545	3.863	1.237	1.333	33.792	1.255
108	1.346	24.006	1.286	1.352	8.095	1.267	0.548	3.884	1.280	1.346	34.481	1.286
109	1.360	24.278	1.317	1.367	8.225	1.293	0.552	3.904	1.323	1.360	35.170	1.317
110	1.374	24.550	1.348	1.382	8.355	1.319	0.556	3.925	1.366	1.374	35.859	1.348
111	1.385	24.846	1.356	1.394	8.414	1.327	0.562	3.931	1.368	1.385	36.177	1.356
112	1.396	25.141	1.363	1.406	8.472	1.336	0.568	3.937	1.371	1.396	36.495	1.363

113	1.407	25.437	1.371	1.418	8.531	1.345	0.574	3.943	1.374	1.407	36.813	1.371
114	1.417	25.732	1.378	1.430	8.590	1.354	0.580	3.949	1.377	1.417	37.132	1.378
115	1.428	26.028	1.386	1.442	8.649	1.363	0.586	3.956	1.380	1.428	37.450	1.386
116	1.437	26.045	1.388	1.451	8.735	1.364	0.590	3.975	1.380	1.437	37.554	1.388
117	1.446	26.062	1.389	1.460	8.821	1.365	0.593	3.995	1.381	1.446	37.658	1.389
118	1.455	26.079	1.391	1.469	8.907	1.366	0.597	4.015	1.382	1.455	37.761	1.391
119	1.464	26.096	1.393	1.479	8.992	1.368	0.600	4.035	1.383	1.464	37.865	1.393
120	1.472	26.114	1.394	1.488	9.078	1.369	0.604	4.055	1.383	1.472	37.969	1.394
121	1.488	26.293	1.408	1.501	9.152	1.385	0.610	4.152	1.400	1.488	38.310	1.408
122	1.503	26.472	1.422	1.514	9.227	1.401	0.615	4.250	1.417	1.503	38.650	1.422
123	1.518	26.651	1.435	1.527	9.301	1.417	0.621	4.348	1.433	1.518	38.990	1.435
124	1.534	26.830	1.449	1.540	9.375	1.434	0.627	4.445	1.450	1.534	39.330	1.449
125	1.549	27.010	1.463	1.553	9.449	1.450	0.632	4.543	1.466	1.549	39.671	1.463
126	1.559	27.151	1.471	1.563	9.519	1.458	0.636	4.567	1.470	1.559	39.865	1.471
127	1.569	27.292	1.479	1.572	9.590	1.467	0.639	4.592	1.473	1.569	40.059	1.479
128	1.579	27.433	1.487	1.582	9.661	1.475	0.642	4.617	1.476	1.579	40.254	1.487
129	1.590	27.575	1.495	1.592	9.731	1.484	0.645	4.641	1.479	1.590	40.448	1.495
130	1.600	27.716	1.502	1.601	9.802	1.492	0.648	4.666	1.482	1.600	40.642	1.502
131	1.612	27.878	1.506	1.615	9.849	1.496	0.653	4.685	1.483	1.612	40.790	1.506
132	1.624	28.040	1.509	1.628	9.895	1.500	0.657	4.704	1.485	1.624	40.937	1.509
133	1.635	28.202	1.512	1.642	9.942	1.504	0.661	4.724	1.486	1.635	41.084	1.512
134	1.647	28.365	1.515	1.655	9.989	1.508	0.666	4.743	1.488	1.647	41.231	1.515
135	1.659	28.527	1.519	1.669	10.035	1.512	0.670	4.762	1.489	1.659	41.379	1.519
136	1.676	28.833	1.542	1.685	10.104	1.534	0.678	4.785	1.507	1.676	42.023	1.542
137	1.693	29.140	1.566	1.700	10.173	1.557	0.685	4.807	1.524	1.693	42.668	1.566
138	1.709	29.446	1.589	1.716	10.241	1.580	0.693	4.830	1.541	1.709	43.312	1.589
139	1.726	29.753	1.613	1.732	10.310	1.603	0.700	4.853	1.559	1.726	43.957	1.613
140	1.743	30.060	1.636	1.747	10.378	1.626	0.708	4.875	1.576	1.743	44.602	1.636
141	1.756	30.160	1.651	1.762	10.506	1.640	0.716	4.886	1.592	1.756	45.010	1.651
142	1.770	30.260	1.666	1.777	10.633	1.655	0.723	4.897	1.608	1.770	45.419	1.666
143	1.783	30.361	1.681	1.791	10.761	1.669	0.731	4.908	1.624	1.783	45.828	1.681
144	1.797	30.461	1.696	1.806	10.888	1.684	0.738	4.918	1.640	1.797	46.237	1.696
145	1.810	30.562	1.711	1.821	11.016	1.699	0.746	4.929	1.656	1.810	46.646	1.711
146	1.822	30.592	1.720	1.830	11.101	1.709	0.751	4.954	1.663	1.822	46.945	1.720
147	1.834	30.622	1.730	1.840	11.187	1.720	0.755	4.979	1.671	1.834	47.244	1.730
148	1.846	30.653	1.740	1.850	11.273	1.730	0.760	5.004	1.679	1.846	47.544	1.740
149	1.858	30.683	1.750	1.860	11.359	1.741	0.765	5.029	1.687	1.858	47.843	1.750
150	1.869	30.713	1.760	1.869	11.445	1.752	0.770	5.054	1.694	1.869	48.143	1.760
151	1.880	30.741	1.767	1.879	11.504	1.759	0.775	5.060	1.711	1.880	48.423	1.767
152	1.890	30.768	1.775	1.890	11.564	1.767	0.780	5.065	1.727	1.890	48.704	1.775
153	1.900	30.796	1.783	1.900	11.624	1.775	0.785	5.070	1.743	1.900	48.984	1.783
154	1.910	30.823	1.791	1.910	11.683	1.783	0.791	5.075	1.760	1.910	49.265	1.791
155	1.920	30.850	1.798	1.920	11.743	1.790	0.796	5.080	1.776	1.920	49.545	1.798
156	1.949	32.415	1.828	1.945	12.434	1.821	0.819	5.150	1.813	1.949	50.517	1.828
157	1.977	33.980	1.858	1.971	13.125	1.852	0.842	5.220	1.850	1.977	51.489	1.858

158	2.006	35.545	1.888	1.996	13.816	1.883	0.865	5.290	1.887	2.006	52.461	1.888
159	2.034	37.110	1.918	2.022	14.507	1.913	0.888	5.360	1.924	2.034	53.433	1.918
160	2.063	38.674	1.948	2.047	15.198	1.944	0.911	5.430	1.961	2.063	54.406	1.948
161	2.105	41.040	2.043	2.092	16.627	2.038	0.951	7.045	2.030	2.105	56.279	2.043
162	2.147	43.405	2.138	2.137	18.056	2.133	0.992	8.661	2.099	2.147	58.152	2.138
163	2.190	45.770	2.234	2.182	19.485	2.227	1.032	10.276	2.168	2.190	60.026	2.234
164	2.232	48.136	2.329	2.227	20.914	2.321	1.073	11.891	2.237	2.232	61.899	2.329
165	2.275	50.501	2.424	2.272	22.343	2.415	1.113	13.506	2.306	2.275	63.773	2.424
166	2.304	52.979	2.509	2.300	23.672	2.502	1.163	14.131	2.357	2.304	65.726	2.509
167	2.333	55.458	2.593	2.328	25.002	2.589	1.213	14.755	2.409	2.333	67.678	2.593
168	2.362	57.937	2.678	2.356	26.331	2.676	1.263	15.380	2.460	2.362	69.631	2.678
169	2.391	60.415	2.762	2.385	27.660	2.763	1.313	16.004	2.512	2.391	71.584	2.762
170	2.420	62.894	2.847	2.413	28.989	2.849	1.363	16.628	2.564	2.420	73.536	2.847
171	2.451	63.874	2.890	2.442	29.484	2.892	1.386	16.692	2.603	2.451	75.553	2.890
172	2.481	64.855	2.933	2.472	29.978	2.934	1.410	16.756	2.643	2.481	77.570	2.933
173	2.512	65.835	2.976	2.502	30.473	2.976	1.433	16.820	2.683	2.512	79.587	2.976
174	2.542	66.815	3.019	2.532	30.967	3.019	1.457	16.883	2.723	2.542	81.604	3.019
175	2.573	67.796	3.062	2.562	31.462	3.061	1.480	16.947	2.762	2.573	83.621	3.062
176	2.598	68.919	3.122	2.588	32.216	3.119	1.494	17.044	2.809	2.598	85.074	3.122
177	2.623	70.042	3.181	2.615	32.970	3.178	1.508	17.141	2.856	2.623	86.528	3.181
178	2.648	71.165	3.240	2.641	33.725	3.236	1.522	17.238	2.903	2.648	87.981	3.240
179	2.674	72.287	3.300	2.668	34.479	3.295	1.536	17.335	2.949	2.674	89.434	3.300
180	2.699	73.410	3.359	2.694	35.233	3.353	1.550	17.431	2.996	2.699	90.888	3.359
181	2.726	74.714	3.432	2.718	35.950	3.424	1.565	17.453	3.040	2.726	92.421	3.432
182	2.753	76.017	3.504	2.743	36.666	3.495	1.580	17.475	3.084	2.753	93.953	3.504
183	2.780	77.320	3.576	2.767	37.382	3.567	1.595	17.497	3.129	2.780	95.486	3.576
184	2.807	78.623	3.648	2.791	38.099	3.638	1.610	17.519	3.173	2.807	97.019	3.648
185	2.834	79.927	3.720	2.816	38.815	3.709	1.624	17.540	3.217	2.834	98.552	3.720
186	2.861	81.488	3.804	2.843	39.562	3.795	1.639	17.816	3.277	2.861	100.583	3.804
187	2.888	83.049	3.889	2.869	40.309	3.880	1.654	18.091	3.337	2.888	102.615	3.889
188	2.915	84.611	3.973	2.896	41.056	3.965	1.668	18.366	3.397	2.915	104.646	3.973
189	2.942	86.172	4.057	2.923	41.803	4.051	1.683	18.641	3.457	2.942	106.677	4.057
190	2.969	87.733	4.141	2.950	42.550	4.136	1.697	18.916	3.518	2.969	108.709	4.141
191	2.994	88.668	4.196	2.975	43.279	4.190	1.711	19.891	3.565	2.994	110.057	4.196
192	3.019	89.603	4.250	3.001	44.008	4.243	1.724	20.866	3.612	3.019	111.405	4.250
193	3.044	90.538	4.304	3.027	44.737	4.297	1.737	21.840	3.658	3.044	112.753	4.304
194	3.070	91.473	4.358	3.052	45.466	4.351	1.750	22.815	3.705	3.070	114.101	4.358
195	3.095	92.407	4.412	3.078	46.195	4.404	1.763	23.790	3.752	3.095	115.449	4.412
196	3.120	93.768	4.485	3.105	46.747	4.477	1.778	24.992	3.794	3.120	116.561	4.485
197	3.145	95.129	4.558	3.132	47.299	4.549	1.793	26.194	3.836	3.145	117.674	4.558
198	3.169	96.490	4.630	3.159	47.852	4.622	1.808	27.396	3.877	3.169	118.786	4.630
199	3.194	97.851	4.703	3.186	48.404	4.694	1.823	28.597	3.919	3.194	119.899	4.703
200	3.219	99.212	4.775	3.213	48.957	4.767	1.838	29.799	3.960	3.219	121.011	4.775
201	3.242	99.878	4.821	3.234	49.204	4.812	1.858	29.975	4.004	3.242	121.695	4.821
202	3.266	100.544	4.867	3.255	49.451	4.858	1.877	30.152	4.047	3.266	122.378	4.867

203	3.289	101.210	4.914	3.277	49.698	4.904	1.897	30.328	4.090	3.289	123.062	4.914
204	3.312	101.876	4.960	3.298	49.945	4.950	1.916	30.504	4.133	3.312	123.745	4.960
205	3.335	102.542	5.006	3.320	50.192	4.996	1.936	30.680	4.176	3.335	124.429	5.006
206	3.362	103.507	5.037	3.346	50.698	5.029	1.948	30.747	4.193	3.362	125.599	5.037
207	3.388	104.472	5.069	3.373	51.205	5.063	1.961	30.813	4.209	3.388	126.769	5.069
208	3.415	105.437	5.101	3.399	51.711	5.097	1.973	30.879	4.225	3.415	127.939	5.101
209	3.441	106.402	5.132	3.426	52.218	5.130	1.986	30.946	4.241	3.441	129.109	5.132
210	3.468	107.366	5.164	3.452	52.724	5.164	1.998	31.012	4.257	3.468	130.279	5.164
211	3.488	108.519	5.234	3.472	53.327	5.233	2.006	32.744	4.311	3.488	132.009	5.234
212	3.509	109.671	5.304	3.492	53.931	5.303	2.015	34.476	4.365	3.509	133.740	5.304
213	3.530	110.823	5.374	3.513	54.534	5.372	2.023	36.207	4.419	3.530	135.470	5.374
214	3.550	111.976	5.444	3.533	55.137	5.442	2.031	37.939	4.473	3.550	137.201	5.444
215	3.571	113.128	5.514	3.553	55.740	5.511	2.039	39.671	4.527	3.571	138.931	5.514
216	3.591	113.763	5.564	3.571	56.057	5.559	2.044	39.822	4.565	3.591	140.070	5.564
217	3.612	114.398	5.613	3.589	56.373	5.606	2.048	39.973	4.602	3.612	141.208	5.613
218	3.632	115.033	5.663	3.608	56.689	5.654	2.053	40.125	4.640	3.632	142.347	5.663
219	3.652	115.668	5.713	3.626	57.005	5.701	2.058	40.276	4.677	3.652	143.485	5.713
220	3.672	116.304	5.763	3.644	57.321	5.749	2.062	40.427	4.715	3.672	144.624	5.763
221	3.693	116.644	5.775	3.669	57.474	5.761	2.076	40.526	4.724	3.693	144.903	5.775
222	3.714	116.984	5.787	3.693	57.626	5.773	2.089	40.626	4.732	3.714	145.182	5.787
223	3.736	117.324	5.799	3.717	57.779	5.785	2.103	40.725	4.741	3.736	145.462	5.799
224	3.757	117.663	5.811	3.741	57.931	5.797	2.117	40.825	4.750	3.757	145.741	5.811
225	3.778	118.003	5.823	3.766	58.084	5.809	2.130	40.924	4.759	3.778	146.020	5.823
226	3.795	118.158	5.828	3.782	58.158	5.814	2.160	40.962	4.764	3.795	146.177	5.828
227	3.811	118.312	5.833	3.798	58.232	5.820	2.190	41.000	4.770	3.811	146.334	5.833
228	3.828	118.466	5.838	3.815	58.307	5.825	2.219	41.038	4.775	3.828	146.491	5.838
229	3.845	118.621	5.842	3.831	58.381	5.830	2.249	41.076	4.781	3.845	146.648	5.842
230	3.862	118.775	5.847	3.848	58.455	5.835	2.278	41.114	4.786	3.862	146.805	5.847
231	3.873	118.885	5.852	3.858	58.534	5.840	2.285	41.142	4.790	3.873	147.057	5.852
232	3.884	118.995	5.856	3.868	58.612	5.845	2.292	41.171	4.794	3.884	147.308	5.856
233	3.896	119.105	5.860	3.879	58.690	5.850	2.299	41.199	4.797	3.896	147.560	5.860
234	3.907	119.215	5.865	3.889	58.769	5.855	2.306	41.228	4.801	3.907	147.812	5.865
235	3.918	119.325	5.869	3.900	58.847	5.860	2.313	41.256	4.805	3.918	148.064	5.869
236	3.924	119.407	5.874	3.907	58.990	5.865	2.315	41.285	4.808	3.924	148.450	5.874
237	3.930	119.488	5.878	3.913	59.132	5.869	2.318	41.313	4.812	3.930	148.837	5.878
238	3.935	119.570	5.883	3.920	59.275	5.874	2.320	41.341	4.815	3.935	149.223	5.883
239	3.941	119.651	5.887	3.927	59.418	5.878	2.322	41.369	4.818	3.941	149.609	5.887
240	3.947	119.733	5.892	3.934	59.560	5.883	2.325	41.397	4.822	3.947	149.996	5.892

Alternative Fast-Pass IM240 Standards
Corresponding to Composite Start-up Emission Standards in §85.2205(a)(2)(iv)

Light Duty Truck 1&2

Sec	1982-1983			1984-1987			1988-1990			1991		
	HC	CO	NOx	HC	CO	NOx	HC	CO	NOx	HC	CO	NOx
30	1.064	14.776	0.562	0.585	10.661	0.513	0.585	10.661	0.298	0.477	5.069	0.254
31	1.091	15.338	0.610	0.609	11.033	0.551	0.609	11.033	0.319	0.494	5.129	0.270
32	1.118	15.900	0.657	0.633	11.405	0.590	0.633	11.405	0.340	0.512	5.189	0.285
33	1.145	16.462	0.705	0.657	11.777	0.629	0.657	11.777	0.361	0.529	5.249	0.300
34	1.172	17.023	0.752	0.681	12.149	0.667	0.681	12.149	0.382	0.547	5.309	0.316
35	1.199	17.585	0.800	0.705	12.521	0.706	0.705	12.521	0.403	0.564	5.369	0.331
36	1.237	17.834	0.804	0.730	12.895	0.711	0.730	12.895	0.407	0.582	5.562	0.334
37	1.275	18.084	0.808	0.754	13.269	0.716	0.754	13.269	0.410	0.601	5.755	0.336
38	1.313	18.333	0.813	0.779	13.643	0.721	0.779	13.643	0.414	0.619	5.948	0.339
39	1.351	18.582	0.817	0.803	14.018	0.727	0.803	14.018	0.418	0.637	6.142	0.341
40	1.389	18.832	0.822	0.828	14.392	0.732	0.828	14.392	0.422	0.656	6.335	0.344
41	1.459	19.867	0.869	0.854	15.098	0.796	0.854	15.098	0.451	0.681	6.890	0.368
42	1.529	20.902	0.915	0.880	15.805	0.861	0.880	15.805	0.479	0.707	7.445	0.392
43	1.599	21.937	0.962	0.907	16.511	0.925	0.907	16.511	0.508	0.732	7.999	0.416
44	1.669	22.972	1.009	0.933	17.217	0.989	0.933	17.217	0.536	0.758	8.554	0.440
45	1.738	24.008	1.056	0.959	17.924	1.053	0.959	17.924	0.565	0.783	9.109	0.464
46	1.784	24.572	1.098	0.989	18.458	1.096	0.989	18.458	0.587	0.799	9.593	0.480
47	1.830	25.136	1.140	1.019	18.992	1.138	1.019	18.992	0.609	0.816	10.076	0.496
48	1.876	25.701	1.182	1.050	19.526	1.180	1.050	19.526	0.631	0.832	10.560	0.512
49	1.922	26.265	1.224	1.080	20.060	1.223	1.080	20.060	0.652	0.848	11.044	0.528
50	1.968	26.830	1.266	1.110	20.594	1.265	1.110	20.594	0.674	0.864	11.527	0.543
51	2.020	27.642	1.305	1.146	21.719	1.294	1.146	21.719	0.701	0.891	12.038	0.563
52	2.072	28.454	1.343	1.182	22.845	1.324	1.182	22.845	0.728	0.917	12.549	0.582
53	2.124	29.266	1.381	1.218	23.970	1.353	1.218	23.970	0.755	0.943	13.059	0.601
54	2.176	30.079	1.420	1.254	25.095	1.382	1.254	25.095	0.782	0.969	13.570	0.621
55	2.228	30.891	1.458	1.290	26.221	1.411	1.290	26.221	0.809	0.995	14.081	0.640
56	2.265	31.485	1.490	1.310	26.449	1.449	1.310	26.449	0.826	1.015	14.438	0.653
57	2.302	32.078	1.522	1.330	26.677	1.486	1.330	26.677	0.842	1.035	14.796	0.666
58	2.340	32.672	1.555	1.350	26.905	1.523	1.350	26.905	0.859	1.055	15.154	0.679
59	2.377	33.266	1.587	1.370	27.133	1.560	1.370	27.133	0.876	1.075	15.512	0.692
60	2.415	33.860	1.619	1.390	27.361	1.597	1.390	27.361	0.892	1.095	15.870	0.705
61	2.451	34.449	1.637	1.405	27.372	1.611	1.405	27.372	0.903	1.109	16.268	0.714
62	2.487	35.037	1.656	1.420	27.383	1.625	1.420	27.383	0.915	1.124	16.667	0.723
63	2.523	35.626	1.674	1.434	27.393	1.639	1.434	27.393	0.926	1.138	17.066	0.732
64	2.559	36.215	1.693	1.449	27.404	1.653	1.449	27.404	0.938	1.153	17.465	0.741
65	2.595	36.804	1.711	1.464	27.415	1.667	1.464	27.415	0.949	1.167	17.863	0.750
66	2.639	37.463	1.737	1.497	28.054	1.699	1.497	28.054	0.960	1.182	18.249	0.759
67	2.683	38.122	1.763	1.530	28.694	1.732	1.530	28.694	0.972	1.196	18.635	0.768
68	2.728	38.782	1.789	1.563	29.333	1.765	1.563	29.333	0.983	1.211	19.020	0.777

69	2.772	39.441	1.815	1.596	29.972	1.797	1.596	29.972	0.994	1.225	19.406	0.786
70	2.817	40.100	1.841	1.629	30.612	1.830	1.629	30.612	1.005	1.239	19.792	0.795
71	2.859	40.631	1.862	1.650	31.097	1.854	1.650	31.097	1.016	1.255	19.906	0.805
72	2.901	41.161	1.884	1.672	31.583	1.878	1.672	31.583	1.028	1.271	20.020	0.815
73	2.943	41.692	1.906	1.694	32.068	1.902	1.694	32.068	1.039	1.287	20.134	0.825
74	2.985	42.222	1.928	1.715	32.554	1.925	1.715	32.554	1.051	1.303	20.248	0.835
75	3.027	42.753	1.950	1.737	33.039	1.949	1.737	33.039	1.062	1.318	20.362	0.845
76	3.061	43.694	1.978	1.760	33.193	1.977	1.760	33.193	1.074	1.331	20.782	0.859
77	3.096	44.636	2.007	1.782	33.347	2.005	1.782	33.347	1.085	1.344	21.202	0.874
78	3.130	45.577	2.035	1.805	33.501	2.033	1.805	33.501	1.096	1.357	21.623	0.888
79	3.165	46.519	2.063	1.828	33.655	2.061	1.828	33.655	1.108	1.370	22.043	0.902
80	3.200	47.461	2.092	1.851	33.809	2.089	1.851	33.809	1.119	1.382	22.463	0.916
81	3.237	47.831	2.111	1.872	34.035	2.111	1.872	34.035	1.131	1.407	22.571	0.925
82	3.275	48.201	2.130	1.894	34.261	2.132	1.894	34.261	1.144	1.431	22.678	0.934
83	3.313	48.571	2.149	1.915	34.488	2.154	1.915	34.488	1.156	1.455	22.786	0.942
84	3.351	48.941	2.168	1.937	34.714	2.175	1.937	34.714	1.169	1.480	22.894	0.951
85	3.389	49.311	2.187	1.958	34.941	2.197	1.958	34.941	1.181	1.504	23.001	0.960
86	3.432	49.503	2.189	1.973	35.115	2.200	1.973	35.115	1.182	1.531	23.112	0.961
87	3.475	49.694	2.192	1.988	35.289	2.203	1.988	35.289	1.182	1.558	23.223	0.963
88	3.518	49.886	2.194	2.002	35.463	2.206	2.002	35.463	1.183	1.586	23.334	0.964
89	3.562	50.077	2.197	2.017	35.637	2.209	2.017	35.637	1.184	1.613	23.445	0.966
90	3.605	50.269	2.199	2.032	35.811	2.212	2.032	35.811	1.185	1.640	23.556	0.967
91	3.645	50.447	2.200	2.044	35.968	2.213	2.044	35.968	1.186	1.654	23.558	0.968
92	3.686	50.626	2.201	2.056	36.125	2.214	2.056	36.125	1.187	1.668	23.560	0.968
93	3.727	50.805	2.202	2.068	36.282	2.215	2.068	36.282	1.188	1.682	23.562	0.968
94	3.767	50.984	2.203	2.081	36.440	2.216	2.081	36.440	1.189	1.696	23.564	0.969
95	3.808	51.162	2.204	2.093	36.597	2.217	2.093	36.597	1.190	1.710	23.567	0.969
96	3.853	51.779	2.212	2.111	36.968	2.227	2.111	36.968	1.195	1.727	23.924	0.978
97	3.898	52.395	2.219	2.129	37.339	2.236	2.129	37.339	1.201	1.744	24.282	0.987
98	3.943	53.012	2.227	2.147	37.710	2.245	2.147	37.710	1.207	1.762	24.639	0.996
99	3.988	53.628	2.234	2.165	38.081	2.254	2.165	38.081	1.213	1.779	24.997	1.004
100	4.033	54.245	2.242	2.183	38.453	2.263	2.183	38.453	1.218	1.796	25.355	1.013
101	4.081	55.131	2.322	2.221	40.429	2.342	2.221	40.429	1.259	1.819	25.871	1.045
102	4.128	56.016	2.403	2.258	42.405	2.420	2.258	42.405	1.299	1.842	26.387	1.076
103	4.175	56.902	2.484	2.295	44.382	2.498	2.295	44.382	1.340	1.865	26.903	1.107
104	4.223	57.788	2.565	2.333	46.358	2.576	2.333	46.358	1.380	1.887	27.419	1.139
105	4.270	58.674	2.646	2.370	48.335	2.654	2.370	48.335	1.421	1.910	27.935	1.170
106	4.300	59.222	2.721	2.404	49.060	2.740	2.404	49.060	1.458	1.936	28.221	1.201
107	4.331	59.771	2.797	2.437	49.785	2.826	2.437	49.785	1.495	1.962	28.506	1.232
108	4.361	60.319	2.872	2.471	50.511	2.912	2.471	50.511	1.531	1.988	28.792	1.263
109	4.391	60.868	2.948	2.504	51.236	2.998	2.504	51.236	1.568	2.014	29.077	1.294
110	4.421	61.416	3.023	2.538	51.962	3.084	2.538	51.962	1.605	2.040	29.363	1.325
111	4.449	61.935	3.038	2.560	52.113	3.101	2.560	52.113	1.615	2.057	29.405	1.332
112	4.476	62.455	3.053	2.582	52.265	3.118	2.582	52.265	1.624	2.074	29.447	1.338
113	4.503	62.974	3.067	2.604	52.417	3.136	2.604	52.417	1.634	2.090	29.489	1.344

114	4.531	63.493	3.082	2.625	52.569	3.153	2.625	52.569	1.644	2.107	29.531	1.350
115	4.558	64.013	3.097	2.647	52.721	3.170	2.647	52.721	1.653	2.124	29.573	1.357
116	4.600	64.559	3.099	2.673	52.723	3.173	2.673	52.723	1.656	2.152	29.865	1.359
117	4.642	65.105	3.102	2.698	52.724	3.175	2.698	52.724	1.658	2.179	30.157	1.361
118	4.684	65.651	3.105	2.723	52.726	3.178	2.723	52.726	1.661	2.207	30.449	1.363
119	4.726	66.197	3.108	2.749	52.728	3.181	2.749	52.728	1.663	2.234	30.741	1.365
120	4.768	66.743	3.111	2.774	52.729	3.184	2.774	52.729	1.666	2.262	31.033	1.368
121	4.804	67.600	3.134	2.799	53.168	3.206	2.799	53.168	1.684	2.276	31.230	1.383
122	4.840	68.458	3.156	2.824	53.606	3.229	2.824	53.606	1.703	2.290	31.428	1.399
123	4.876	69.315	3.179	2.850	54.044	3.251	2.850	54.044	1.722	2.304	31.625	1.415
124	4.911	70.173	3.202	2.875	54.483	3.274	2.875	54.483	1.741	2.318	31.823	1.431
125	4.947	71.030	3.224	2.900	54.921	3.296	2.900	54.921	1.759	2.332	32.020	1.446
126	4.983	71.729	3.241	2.920	55.078	3.310	2.920	55.078	1.770	2.355	32.099	1.453
127	5.019	72.427	3.257	2.941	55.236	3.323	2.941	55.236	1.780	2.377	32.178	1.460
128	5.055	73.126	3.274	2.961	55.393	3.337	2.961	55.393	1.790	2.399	32.256	1.468
129	5.091	73.825	3.290	2.981	55.551	3.350	2.981	55.551	1.800	2.422	32.335	1.475
130	5.126	74.523	3.307	3.001	55.708	3.364	3.001	55.708	1.811	2.444	32.413	1.482
131	5.178	75.331	3.311	3.027	55.921	3.370	3.027	55.921	1.813	2.464	32.638	1.484
132	5.230	76.139	3.316	3.052	56.134	3.376	3.052	56.134	1.816	2.485	32.862	1.487
133	5.282	76.947	3.321	3.078	56.346	3.382	3.078	56.346	1.819	2.505	33.086	1.490
134	5.334	77.755	3.326	3.103	56.559	3.388	3.103	56.559	1.822	2.525	33.310	1.492
135	5.386	78.563	3.331	3.129	56.771	3.394	3.129	56.771	1.825	2.545	33.534	1.495
136	5.468	79.372	3.365	3.167	57.854	3.432	3.167	57.854	1.851	2.573	34.147	1.520
137	5.549	80.181	3.398	3.206	58.937	3.469	3.206	58.937	1.877	2.600	34.760	1.546
138	5.630	80.990	3.431	3.244	60.020	3.507	3.244	60.020	1.903	2.628	35.373	1.571
139	5.712	81.798	3.464	3.283	61.102	3.544	3.283	61.102	1.929	2.655	35.985	1.596
140	5.793	82.607	3.498	3.322	62.185	3.582	3.322	62.185	1.955	2.682	36.598	1.622
141	5.825	83.486	3.536	3.342	62.366	3.639	3.342	62.366	1.977	2.702	36.880	1.639
142	5.856	84.365	3.575	3.363	62.548	3.697	3.363	62.548	1.999	2.722	37.162	1.656
143	5.888	85.245	3.613	3.383	62.729	3.754	3.383	62.729	2.021	2.742	37.444	1.673
144	5.920	86.124	3.652	3.404	62.910	3.811	3.404	62.910	2.043	2.762	37.727	1.691
145	5.951	87.003	3.690	3.425	63.091	3.869	3.425	63.091	2.065	2.782	38.009	1.708
146	5.975	87.915	3.718	3.453	63.539	3.892	3.453	63.539	2.074	2.797	38.632	1.717
147	5.998	88.827	3.745	3.482	63.987	3.916	3.482	63.987	2.082	2.811	39.255	1.726
148	6.022	89.739	3.772	3.510	64.435	3.939	3.510	64.435	2.090	2.825	39.878	1.735
149	6.046	90.652	3.800	3.539	64.883	3.963	3.539	64.883	2.098	2.839	40.501	1.743
150	6.069	91.564	3.827	3.568	65.331	3.986	3.568	65.331	2.106	2.853	41.124	1.752
151	6.099	92.475	3.852	3.595	65.704	4.000	3.595	65.704	2.117	2.868	41.450	1.765
152	6.129	93.387	3.877	3.623	66.077	4.014	3.623	66.077	2.129	2.883	41.776	1.778
153	6.159	94.298	3.901	3.650	66.450	4.029	3.650	66.450	2.141	2.898	42.102	1.791
154	6.189	95.209	3.926	3.677	66.823	4.043	3.677	66.823	2.152	2.913	42.428	1.803
155	6.219	96.121	3.951	3.705	67.197	4.057	3.705	67.197	2.164	2.927	42.754	1.816
156	6.313	97.599	4.030	3.767	69.206	4.117	3.767	69.206	2.205	2.969	44.233	1.849
157	6.407	99.077	4.110	3.829	71.215	4.176	3.829	71.215	2.247	3.011	45.712	1.882
158	6.501	100.555	4.190	3.891	73.225	4.236	3.891	73.225	2.289	3.053	47.191	1.915

159	6.595	102.033	4.269	3.953	75.234	4.295	3.953	75.234	2.330	3.095	48.670	1.948
160	6.689	103.511	4.349	4.015	77.243	4.355	4.015	77.243	2.372	3.136	50.149	1.981
161	7.010	107.552	4.542	4.078	79.985	4.551	4.078	79.985	2.472	3.182	51.569	2.071
162	7.331	111.593	4.736	4.142	82.727	4.747	4.142	82.727	2.571	3.227	52.988	2.162
163	7.652	115.634	4.930	4.205	85.469	4.943	4.205	85.469	2.671	3.272	54.408	2.252
164	7.972	119.676	5.123	4.268	88.211	5.139	4.268	88.211	2.770	3.318	55.828	2.343
165	8.293	123.717	5.317	4.332	90.953	5.335	4.332	90.953	2.870	3.363	57.247	2.434
166	8.576	125.252	5.496	4.380	93.266	5.516	4.380	93.266	2.961	3.410	58.958	2.509
167	8.859	126.786	5.676	4.428	95.579	5.696	4.428	95.579	3.053	3.458	60.670	2.584
168	9.142	128.321	5.855	4.477	97.892	5.876	4.477	97.892	3.144	3.505	62.381	2.659
169	9.425	129.855	6.034	4.525	100.205	6.056	4.525	100.205	3.235	3.552	64.092	2.735
170	9.708	131.390	6.213	4.573	102.517	6.237	4.573	102.517	3.327	3.600	65.804	2.810
171	9.788	132.095	6.318	4.618	103.813	6.345	4.618	103.813	3.373	3.644	66.939	2.863
172	9.868	132.801	6.422	4.664	105.109	6.452	4.664	105.109	3.420	3.688	68.075	2.916
173	9.948	133.506	6.527	4.709	106.404	6.560	4.709	106.404	3.467	3.732	69.210	2.969
174	10.028	134.211	6.632	4.754	107.700	6.668	4.754	107.700	3.513	3.776	70.345	3.022
175	10.107	134.917	6.736	4.799	108.995	6.776	4.799	108.995	3.560	3.821	71.481	3.075
176	10.174	137.703	6.876	4.858	110.733	6.910	4.858	110.733	3.626	3.856	73.077	3.130
177	10.242	140.490	7.016	4.917	112.471	7.045	4.917	112.471	3.692	3.891	74.674	3.185
178	10.309	143.276	7.155	4.977	114.209	7.179	4.977	114.209	3.758	3.927	76.271	3.240
179	10.376	146.063	7.295	5.036	115.946	7.313	5.036	115.946	3.824	3.962	77.867	3.295
180	10.443	148.849	7.435	5.095	117.684	7.447	5.095	117.684	3.889	3.997	79.464	3.350
181	10.506	152.900	7.603	5.158	119.775	7.621	5.158	119.775	3.979	4.024	81.282	3.430
182	10.570	156.950	7.772	5.221	121.866	7.795	5.221	121.866	4.069	4.050	83.100	3.509
183	10.634	161.001	7.941	5.284	123.956	7.969	5.284	123.956	4.159	4.077	84.919	3.589
184	10.698	165.051	8.110	5.347	126.047	8.143	5.347	126.047	4.248	4.104	86.737	3.668
185	10.761	169.102	8.279	5.411	128.138	8.318	5.411	128.138	4.338	4.131	88.555	3.748
186	10.836	171.850	8.477	5.428	129.673	8.499	5.428	129.673	4.443	4.154	90.333	3.841
187	10.911	174.598	8.675	5.446	131.209	8.681	5.446	131.209	4.547	4.178	92.110	3.934
188	10.986	177.345	8.873	5.463	132.745	8.862	5.463	132.745	4.652	4.202	93.888	4.026
189	11.061	180.093	9.071	5.481	134.281	9.043	5.481	134.281	4.756	4.225	95.665	4.119
190	11.136	182.841	9.269	5.499	135.816	9.225	5.499	135.816	4.861	4.249	97.442	4.212
191	11.307	184.591	9.422	5.561	137.198	9.386	5.561	137.198	4.932	4.285	98.856	4.274
192	11.477	186.341	9.576	5.623	138.580	9.547	5.623	138.580	5.003	4.321	100.271	4.336
193	11.648	188.091	9.730	5.686	139.961	9.708	5.686	139.961	5.074	4.357	101.685	4.398
194	11.819	189.841	9.884	5.748	141.343	9.869	5.748	141.343	5.146	4.393	103.099	4.459
195	11.990	191.591	10.038	5.810	142.724	10.030	5.810	142.724	5.217	4.430	104.513	4.521
196	12.067	194.037	10.193	5.828	144.052	10.188	5.828	144.052	5.301	4.460	106.134	4.589
197	12.144	196.482	10.348	5.845	145.381	10.346	5.845	145.381	5.385	4.490	107.755	4.658
198	12.221	198.927	10.503	5.863	146.709	10.504	5.863	146.709	5.469	4.520	109.376	4.726
199	12.298	201.373	10.658	5.880	148.037	10.662	5.880	148.037	5.553	4.550	110.997	4.795
200	12.376	203.818	10.813	5.898	149.365	10.820	5.898	149.365	5.637	4.580	112.617	4.863
201	12.463	204.868	10.912	5.942	150.214	10.948	5.942	150.214	5.692	4.623	113.207	4.906
202	12.551	205.918	11.012	5.986	151.063	11.075	5.986	151.063	5.746	4.666	113.796	4.949
203	12.639	206.967	11.111	6.029	151.912	11.203	6.029	151.912	5.801	4.709	114.385	4.993

204	12.726	208.017	11.211	6.073	152.760	11.330	6.073	152.760	5.856	4.752	114.974	5.036
205	12.814	209.067	11.310	6.117	153.609	11.458	6.117	153.609	5.911	4.795	115.563	5.079
206	12.891	211.915	11.381	6.174	154.888	11.530	6.174	154.888	5.951	4.848	116.847	5.119
207	12.969	214.764	11.452	6.231	156.166	11.601	6.231	156.166	5.990	4.901	118.131	5.160
208	13.046	217.612	11.523	6.288	157.445	11.673	6.288	157.445	6.030	4.955	119.415	5.201
209	13.124	220.460	11.594	6.345	158.724	11.745	6.345	158.724	6.070	5.008	120.699	5.241
210	13.201	223.309	11.665	6.401	160.002	11.817	6.401	160.002	6.110	5.061	121.983	5.282
211	13.243	226.365	11.862	6.451	161.606	11.984	6.451	161.606	6.194	5.090	123.498	5.355
212	13.285	229.421	12.060	6.500	163.210	12.152	6.500	163.210	6.278	5.119	125.012	5.429
213	13.327	232.478	12.257	6.550	164.814	12.319	6.550	164.814	6.362	5.147	126.526	5.502
214	13.370	235.534	12.455	6.599	166.418	12.486	6.599	166.418	6.446	5.176	128.040	5.576
215	13.412	238.591	12.653	6.649	168.022	12.653	6.649	168.022	6.530	5.204	129.554	5.649
216	13.470	240.891	12.778	6.693	168.948	12.780	6.693	168.948	6.585	5.240	130.345	5.695
217	13.528	243.191	12.904	6.737	169.874	12.906	6.737	169.874	6.640	5.275	131.136	5.741
218	13.586	245.492	13.030	6.782	170.800	13.032	6.782	170.800	6.695	5.310	131.928	5.787
219	13.645	247.792	13.156	6.826	171.726	13.159	6.826	171.726	6.750	5.345	132.719	5.833
220	13.703	250.092	13.282	6.870	172.653	13.285	6.870	172.653	6.804	5.380	133.510	5.879
221	13.896	250.710	13.307	6.946	173.200	13.314	6.946	173.200	6.818	5.436	133.899	5.888
222	14.088	251.329	13.332	7.022	173.748	13.343	7.022	173.748	6.831	5.492	134.287	5.896
223	14.281	251.947	13.358	7.098	174.295	13.371	7.098	174.295	6.844	5.548	134.676	5.905
224	14.474	252.565	13.383	7.173	174.843	13.400	7.173	174.843	6.857	5.604	135.064	5.913
225	14.667	253.184	13.409	7.249	175.391	13.429	7.249	175.391	6.870	5.660	135.453	5.922
226	14.845	253.888	13.422	7.334	175.611	13.440	7.334	175.611	6.877	5.699	135.633	5.927
227	15.023	254.593	13.436	7.419	175.831	13.452	7.419	175.831	6.884	5.738	135.814	5.931
228	15.201	255.297	13.450	7.504	176.051	13.464	7.504	176.051	6.891	5.776	135.995	5.936
229	15.379	256.002	13.464	7.589	176.271	13.475	7.589	176.271	6.897	5.815	136.176	5.941
230	15.557	256.706	13.478	7.674	176.491	13.487	7.674	176.491	6.904	5.854	136.356	5.946
231	15.658	257.286	13.488	7.710	176.612	13.498	7.710	176.612	6.910	5.875	136.581	5.951
232	15.759	257.866	13.499	7.746	176.732	13.508	7.746	176.732	6.916	5.897	136.806	5.956
233	15.861	258.445	13.510	7.782	176.853	13.519	7.782	176.853	6.922	5.918	137.031	5.962
234	15.962	259.025	13.521	7.818	176.974	13.530	7.818	176.974	6.928	5.940	137.256	5.967
235	16.063	259.605	13.531	7.853	177.095	13.540	7.853	177.095	6.934	5.961	137.482	5.972
236	16.104	259.940	13.543	7.867	177.463	13.551	7.867	177.463	6.940	5.977	137.680	5.978
237	16.144	260.276	13.554	7.881	177.830	13.561	7.881	177.830	6.946	5.994	137.879	5.983
238	16.185	260.612	13.566	7.894	178.198	13.572	7.894	178.198	6.951	6.010	138.078	5.989
239	16.225	260.947	13.577	7.908	178.566	13.582	7.908	178.566	6.957	6.026	138.277	5.994
240	16.265	261.283	13.589	7.922	178.933	13.592	7.922	178.933	6.962	6.042	138.476	6.000

Alternative Fast-Pass IM240 Standards
Corresponding to Composite Start-up Emission Standards in §85.2205(a)(2)(vi)

Light Duty Truck 3&4

Sec	1982-1983			1984-1987			1988-1990			1991		
	HC	CO	NO _x	HC	CO	NO _x	HC	CO	NO _x	HC	CO	NO _x
30	1.064	14.776	0.513	0.585	10.661	0.513	0.585	10.661	0.436	0.477	5.069	0.395
31	1.091	15.338	0.551	0.609	11.033	0.551	0.609	11.033	0.463	0.494	5.129	0.420
32	1.118	15.900	0.590	0.633	11.405	0.590	0.633	11.405	0.490	0.512	5.189	0.445
33	1.145	16.462	0.629	0.657	11.777	0.629	0.657	11.777	0.517	0.529	5.249	0.470
34	1.172	17.023	0.667	0.681	12.149	0.667	0.681	12.149	0.544	0.547	5.309	0.495
35	1.199	17.585	0.706	0.705	12.521	0.706	0.705	12.521	0.572	0.564	5.369	0.520
36	1.237	17.834	0.711	0.730	12.895	0.711	0.730	12.895	0.576	0.582	5.562	0.524
37	1.275	18.084	0.716	0.754	13.269	0.716	0.754	13.269	0.580	0.601	5.755	0.527
38	1.313	18.333	0.721	0.779	13.643	0.721	0.779	13.643	0.584	0.619	5.948	0.531
39	1.351	18.582	0.727	0.803	14.018	0.727	0.803	14.018	0.588	0.637	6.142	0.535
40	1.389	18.832	0.732	0.828	14.392	0.732	0.828	14.392	0.592	0.656	6.335	0.539
41	1.459	19.867	0.796	0.854	15.098	0.796	0.854	15.098	0.636	0.681	6.890	0.578
42	1.529	20.902	0.861	0.880	15.805	0.861	0.880	15.805	0.681	0.707	7.445	0.617
43	1.599	21.937	0.925	0.907	16.511	0.925	0.907	16.511	0.726	0.732	7.999	0.657
44	1.669	22.972	0.989	0.933	17.217	0.989	0.933	17.217	0.771	0.758	8.554	0.696
45	1.738	24.008	1.053	0.959	17.924	1.053	0.959	17.924	0.815	0.783	9.109	0.735
46	1.784	24.572	1.096	0.989	18.458	1.096	0.989	18.458	0.840	0.799	9.593	0.760
47	1.830	25.136	1.138	1.019	18.992	1.138	1.019	18.992	0.866	0.816	10.076	0.785
48	1.876	25.701	1.180	1.050	19.526	1.180	1.050	19.526	0.891	0.832	10.560	0.810
49	1.922	26.265	1.223	1.080	20.060	1.223	1.080	20.060	0.916	0.848	11.044	0.835
50	1.968	26.830	1.265	1.110	20.594	1.265	1.110	20.594	0.941	0.864	11.527	0.860
51	2.020	27.642	1.294	1.146	21.719	1.294	1.146	21.719	0.978	0.891	12.038	0.893
52	2.072	28.454	1.324	1.182	22.845	1.324	1.182	22.845	1.016	0.917	12.549	0.926
53	2.124	29.266	1.353	1.218	23.970	1.353	1.218	23.970	1.053	0.943	13.059	0.959
54	2.176	30.079	1.382	1.254	25.095	1.382	1.254	25.095	1.090	0.969	13.570	0.992
55	2.228	30.891	1.411	1.290	26.221	1.411	1.290	26.221	1.128	0.995	14.081	1.026
56	2.265	31.485	1.449	1.310	26.449	1.449	1.310	26.449	1.160	1.015	14.438	1.051
57	2.302	32.078	1.486	1.330	26.677	1.486	1.330	26.677	1.192	1.035	14.796	1.077
58	2.340	32.672	1.523	1.350	26.905	1.523	1.350	26.905	1.224	1.055	15.154	1.103
59	2.377	33.266	1.560	1.370	27.133	1.560	1.370	27.133	1.256	1.075	15.512	1.129
60	2.415	33.860	1.597	1.390	27.361	1.597	1.390	27.361	1.288	1.095	15.870	1.155
61	2.451	34.487	1.611	1.405	27.372	1.611	1.405	27.372	1.301	1.109	16.268	1.166
62	2.487	35.113	1.625	1.420	27.383	1.625	1.420	27.383	1.313	1.124	16.667	1.177
63	2.523	35.740	1.639	1.434	27.393	1.639	1.434	27.393	1.326	1.138	17.066	1.188
64	2.559	36.367	1.653	1.449	27.404	1.653	1.449	27.404	1.338	1.153	17.465	1.200
65	2.595	36.994	1.667	1.464	27.415	1.667	1.464	27.415	1.351	1.167	17.863	1.211
66	2.639	37.728	1.699	1.497	28.054	1.699	1.497	28.054	1.366	1.182	18.249	1.230
67	2.683	38.462	1.732	1.530	28.694	1.732	1.530	28.694	1.382	1.196	18.635	1.250
68	2.728	39.197	1.765	1.563	29.333	1.765	1.563	29.333	1.397	1.211	19.020	1.269

69	2.772	39.931	1.797	1.596	29.972	1.797	1.596	29.972	1.412	1.225	19.406	1.289
70	2.817	40.666	1.830	1.629	30.612	1.830	1.629	30.612	1.427	1.239	19.792	1.308
71	2.859	41.083	1.854	1.650	31.097	1.854	1.650	31.097	1.443	1.255	19.906	1.321
72	2.901	41.500	1.878	1.672	31.583	1.878	1.672	31.583	1.459	1.271	20.020	1.334
73	2.943	41.918	1.902	1.694	32.068	1.902	1.694	32.068	1.475	1.287	20.134	1.347
74	2.985	42.335	1.925	1.715	32.554	1.925	1.715	32.554	1.491	1.303	20.248	1.361
75	3.027	42.753	1.949	1.737	33.039	1.949	1.737	33.039	1.507	1.318	20.362	1.374
76	3.061	43.705	1.977	1.760	33.193	1.977	1.760	33.193	1.528	1.331	20.782	1.391
77	3.096	44.657	2.005	1.782	33.347	2.005	1.782	33.347	1.550	1.344	21.202	1.409
78	3.130	45.609	2.033	1.805	33.501	2.033	1.805	33.501	1.571	1.357	21.623	1.426
79	3.165	46.562	2.061	1.828	33.655	2.061	1.828	33.655	1.593	1.370	22.043	1.444
80	3.200	47.514	2.089	1.851	33.809	2.089	1.851	33.809	1.615	1.382	22.463	1.461
81	3.237	47.873	2.111	1.872	34.035	2.111	1.872	34.035	1.623	1.407	22.571	1.475
82	3.275	48.233	2.132	1.894	34.261	2.132	1.894	34.261	1.632	1.431	22.678	1.489
83	3.313	48.592	2.154	1.915	34.488	2.154	1.915	34.488	1.640	1.455	22.786	1.503
84	3.351	48.952	2.175	1.937	34.714	2.175	1.937	34.714	1.648	1.480	22.894	1.517
85	3.389	49.311	2.197	1.958	34.941	2.197	1.958	34.941	1.657	1.504	23.001	1.531
86	3.432	49.503	2.200	1.973	35.115	2.200	1.973	35.115	1.659	1.531	23.112	1.531
87	3.475	49.694	2.203	1.988	35.289	2.203	1.988	35.289	1.661	1.558	23.223	1.532
88	3.518	49.886	2.206	2.002	35.463	2.206	2.002	35.463	1.663	1.586	23.334	1.533
89	3.562	50.077	2.209	2.017	35.637	2.209	2.017	35.637	1.665	1.613	23.445	1.533
90	3.605	50.269	2.212	2.032	35.811	2.212	2.032	35.811	1.667	1.640	23.556	1.534
91	3.645	50.447	2.213	2.044	35.968	2.213	2.044	35.968	1.668	1.654	23.558	1.534
92	3.686	50.626	2.214	2.056	36.125	2.214	2.056	36.125	1.669	1.668	23.560	1.534
93	3.727	50.805	2.215	2.068	36.282	2.215	2.068	36.282	1.671	1.682	23.562	1.535
94	3.767	50.984	2.216	2.081	36.440	2.216	2.081	36.440	1.672	1.696	23.564	1.535
95	3.808	51.162	2.217	2.093	36.597	2.217	2.093	36.597	1.674	1.710	23.567	1.535
96	3.853	51.779	2.227	2.111	36.968	2.227	2.111	36.968	1.680	1.727	23.924	1.547
97	3.898	52.395	2.236	2.129	37.339	2.236	2.129	37.339	1.686	1.744	24.282	1.558
98	3.943	53.012	2.245	2.147	37.710	2.245	2.147	37.710	1.692	1.762	24.639	1.570
99	3.988	53.628	2.254	2.165	38.081	2.254	2.165	38.081	1.698	1.779	24.997	1.581
100	4.033	54.245	2.263	2.183	38.453	2.263	2.183	38.453	1.704	1.796	25.355	1.593
101	4.081	55.131	2.342	2.221	40.429	2.342	2.221	40.429	1.779	1.819	25.871	1.636
102	4.128	56.016	2.420	2.258	42.405	2.420	2.258	42.405	1.854	1.842	26.387	1.678
103	4.175	56.902	2.498	2.295	44.382	2.498	2.295	44.382	1.928	1.865	26.903	1.721
104	4.223	57.788	2.576	2.333	46.358	2.576	2.333	46.358	2.003	1.887	27.419	1.764
105	4.270	58.674	2.654	2.370	48.335	2.654	2.370	48.335	2.078	1.910	27.935	1.807
106	4.300	59.222	2.740	2.404	49.060	2.740	2.404	49.060	2.132	1.936	28.221	1.864
107	4.331	59.771	2.826	2.437	49.785	2.826	2.437	49.785	2.187	1.962	28.506	1.921
108	4.361	60.319	2.912	2.471	50.511	2.912	2.471	50.511	2.241	1.988	28.792	1.978
109	4.391	60.868	2.998	2.504	51.236	2.998	2.504	51.236	2.296	2.014	29.077	2.035
110	4.421	61.416	3.084	2.538	51.962	3.084	2.538	51.962	2.350	2.040	29.363	2.092
111	4.449	61.935	3.101	2.560	52.113	3.101	2.560	52.113	2.365	2.057	29.405	2.107
112	4.476	62.455	3.118	2.582	52.265	3.118	2.582	52.265	2.381	2.074	29.447	2.121
113	4.503	62.974	3.136	2.604	52.417	3.136	2.604	52.417	2.396	2.090	29.489	2.135

114	4.531	63.493	3.153	2.625	52.569	3.153	2.625	52.569	2.411	2.107	29.531	2.149
115	4.558	64.013	3.170	2.647	52.721	3.170	2.647	52.721	2.426	2.124	29.573	2.163
116	4.600	64.559	3.173	2.673	52.723	3.173	2.673	52.723	2.430	2.152	29.865	2.166
117	4.642	65.105	3.175	2.698	52.724	3.175	2.698	52.724	2.433	2.179	30.157	2.169
118	4.684	65.651	3.178	2.723	52.726	3.178	2.723	52.726	2.437	2.207	30.449	2.173
119	4.726	66.197	3.181	2.749	52.728	3.181	2.749	52.728	2.441	2.234	30.741	2.176
120	4.768	66.743	3.184	2.774	52.729	3.184	2.774	52.729	2.445	2.262	31.033	2.179
121	4.804	67.600	3.206	2.799	53.168	3.206	2.799	53.168	2.467	2.276	31.230	2.200
122	4.840	68.458	3.229	2.824	53.606	3.229	2.824	53.606	2.489	2.290	31.428	2.222
123	4.876	69.315	3.251	2.850	54.044	3.251	2.850	54.044	2.512	2.304	31.625	2.243
124	4.911	70.173	3.274	2.875	54.483	3.274	2.875	54.483	2.534	2.318	31.823	2.265
125	4.947	71.030	3.296	2.900	54.921	3.296	2.900	54.921	2.557	2.332	32.020	2.286
126	4.983	71.729	3.310	2.920	55.078	3.310	2.920	55.078	2.569	2.355	32.099	2.297
127	5.019	72.427	3.323	2.941	55.236	3.323	2.941	55.236	2.580	2.377	32.178	2.307
128	5.055	73.126	3.337	2.961	55.393	3.337	2.961	55.393	2.592	2.399	32.256	2.318
129	5.091	73.825	3.350	2.981	55.551	3.350	2.981	55.551	2.604	2.422	32.335	2.329
130	5.126	74.523	3.364	3.001	55.708	3.364	3.001	55.708	2.616	2.444	32.413	2.339
131	5.178	75.331	3.370	3.027	55.921	3.370	3.027	55.921	2.619	2.464	32.638	2.343
132	5.230	76.139	3.376	3.052	56.134	3.376	3.052	56.134	2.623	2.485	32.862	2.347
133	5.282	76.947	3.382	3.078	56.346	3.382	3.078	56.346	2.627	2.505	33.086	2.350
134	5.334	77.755	3.388	3.103	56.559	3.388	3.103	56.559	2.630	2.525	33.310	2.354
135	5.386	78.563	3.394	3.129	56.771	3.394	3.129	56.771	2.634	2.545	33.534	2.358
136	5.468	79.372	3.432	3.167	57.854	3.432	3.167	57.854	2.672	2.573	34.147	2.395
137	5.549	80.181	3.469	3.206	58.937	3.469	3.206	58.937	2.711	2.600	34.760	2.431
138	5.630	80.990	3.507	3.244	60.020	3.507	3.244	60.020	2.749	2.628	35.373	2.468
139	5.712	81.798	3.544	3.283	61.102	3.544	3.283	61.102	2.787	2.655	35.985	2.505
140	5.793	82.607	3.582	3.322	62.185	3.582	3.322	62.185	2.826	2.682	36.598	2.542
141	5.825	83.486	3.639	3.342	62.366	3.639	3.342	62.366	2.851	2.702	36.880	2.574
142	5.856	84.365	3.697	3.363	62.548	3.697	3.363	62.548	2.875	2.722	37.162	2.606
143	5.888	85.245	3.754	3.383	62.729	3.754	3.383	62.729	2.900	2.742	37.444	2.638
144	5.920	86.124	3.811	3.404	62.910	3.811	3.404	62.910	2.925	2.762	37.727	2.671
145	5.951	87.003	3.869	3.425	63.091	3.869	3.425	63.091	2.949	2.782	38.009	2.703
146	5.975	87.915	3.892	3.453	63.539	3.892	3.453	63.539	2.959	2.797	38.632	2.715
147	5.998	88.827	3.916	3.482	63.987	3.916	3.482	63.987	2.968	2.811	39.255	2.726
148	6.022	89.739	3.939	3.510	64.435	3.939	3.510	64.435	2.978	2.825	39.878	2.738
149	6.046	90.652	3.963	3.539	64.883	3.963	3.539	64.883	2.987	2.839	40.501	2.750
150	6.069	91.564	3.986	3.568	65.331	3.986	3.568	65.331	2.997	2.853	41.124	2.762
151	6.099	92.475	4.000	3.595	65.704	4.000	3.595	65.704	3.007	2.868	41.450	2.774
152	6.129	93.387	4.014	3.623	66.077	4.014	3.623	66.077	3.017	2.883	41.776	2.786
153	6.159	94.298	4.029	3.650	66.450	4.029	3.650	66.450	3.028	2.898	42.102	2.799
154	6.189	95.209	4.043	3.677	66.823	4.043	3.677	66.823	3.038	2.913	42.428	2.811
155	6.219	96.121	4.057	3.705	67.197	4.057	3.705	67.197	3.049	2.927	42.754	2.823
156	6.313	97.599	4.117	3.767	69.206	4.117	3.767	69.206	3.113	2.969	44.233	2.870
157	6.407	99.077	4.176	3.829	71.215	4.176	3.829	71.215	3.178	3.011	45.712	2.917
158	6.501	100.555	4.236	3.891	73.225	4.236	3.891	73.225	3.242	3.053	47.191	2.964

159	6.595	102.033	4.295	3.953	75.234	4.295	3.953	75.234	3.307	3.095	48.670	3.011
160	6.689	103.511	4.355	4.015	77.243	4.355	4.015	77.243	3.371	3.136	50.149	3.057
161	7.010	107.552	4.551	4.078	79.985	4.551	4.078	79.985	3.503	3.182	51.569	3.181
162	7.331	111.593	4.747	4.142	82.727	4.747	4.142	82.727	3.635	3.227	52.988	3.306
163	7.652	115.634	4.943	4.205	85.469	4.943	4.205	85.469	3.767	3.272	54.408	3.430
164	7.972	119.676	5.139	4.268	88.211	5.139	4.268	88.211	3.899	3.318	55.828	3.554
165	8.293	123.717	5.335	4.332	90.953	5.335	4.332	90.953	4.030	3.363	57.247	3.678
166	8.671	125.252	5.516	4.380	93.266	5.516	4.380	93.266	4.145	3.410	58.958	3.796
167	9.050	126.786	5.696	4.428	95.579	5.696	4.428	95.579	4.260	3.458	60.670	3.914
168	9.428	128.321	5.876	4.477	97.892	5.876	4.477	97.892	4.375	3.505	62.381	4.033
169	9.806	129.855	6.056	4.525	100.205	6.056	4.525	100.205	4.490	3.552	64.092	4.151
170	10.184	131.390	6.237	4.573	102.517	6.237	4.573	102.517	4.605	3.600	65.804	4.269
171	10.426	132.095	6.345	4.618	103.813	6.345	4.618	103.813	4.673	3.644	66.939	4.322
172	10.667	132.801	6.452	4.664	105.109	6.452	4.664	105.109	4.741	3.688	68.075	4.374
173	10.909	133.506	6.560	4.709	106.404	6.560	4.709	106.404	4.808	3.732	69.210	4.426
174	11.150	134.211	6.668	4.754	107.700	6.668	4.754	107.700	4.876	3.776	70.345	4.479
175	11.392	134.917	6.776	4.799	108.995	6.776	4.799	108.995	4.944	3.821	71.481	4.531
176	11.439	137.703	6.910	4.858	110.733	6.910	4.858	110.733	5.057	3.856	73.077	4.626
177	11.486	140.490	7.045	4.917	112.471	7.045	4.917	112.471	5.171	3.891	74.674	4.722
178	11.533	143.276	7.179	4.977	114.209	7.179	4.977	114.209	5.284	3.927	76.271	4.817
179	11.581	146.063	7.313	5.036	115.946	7.313	5.036	115.946	5.398	3.962	77.867	4.912
180	11.628	148.849	7.447	5.095	117.684	7.447	5.095	117.684	5.511	3.997	79.464	5.008
181	11.671	154.282	7.621	5.158	119.775	7.621	5.158	119.775	5.641	4.024	81.282	5.111
182	11.715	159.715	7.795	5.221	121.866	7.795	5.221	121.866	5.770	4.050	83.100	5.214
183	11.759	165.147	7.969	5.284	123.956	7.969	5.284	123.956	5.900	4.077	84.919	5.318
184	11.803	170.580	8.143	5.347	126.047	8.143	5.347	126.047	6.029	4.104	86.737	5.421
185	11.846	176.013	8.318	5.411	128.138	8.318	5.411	128.138	6.159	4.131	88.555	5.524
186	11.887	179.970	8.499	5.428	129.673	8.499	5.428	129.673	6.285	4.154	90.333	5.656
187	11.928	183.927	8.681	5.446	131.209	8.681	5.446	131.209	6.411	4.178	92.110	5.787
188	11.969	187.884	8.862	5.463	132.745	8.862	5.463	132.745	6.537	4.202	93.888	5.919
189	12.010	191.841	9.043	5.481	134.281	9.043	5.481	134.281	6.663	4.225	95.665	6.050
190	12.051	195.798	9.225	5.499	135.816	9.225	5.499	135.816	6.789	4.249	97.442	6.182
191	12.090	197.691	9.386	5.561	137.198	9.386	5.561	137.198	6.875	4.285	98.856	6.266
192	12.128	199.584	9.547	5.623	138.580	9.547	5.623	138.580	6.961	4.321	100.271	6.350
193	12.166	201.476	9.708	5.686	139.961	9.708	5.686	139.961	7.047	4.357	101.685	6.435
194	12.205	203.369	9.869	5.748	141.343	9.869	5.748	141.343	7.133	4.393	103.099	6.519
195	12.243	205.262	10.030	5.810	142.724	10.030	5.810	142.724	7.219	4.430	104.513	6.603
196	12.281	208.341	10.188	5.828	144.052	10.188	5.828	144.052	7.346	4.460	106.134	6.706
197	12.319	211.419	10.346	5.845	145.381	10.346	5.845	145.381	7.473	4.490	107.755	6.810
198	12.357	214.498	10.504	5.863	146.709	10.504	5.863	146.709	7.600	4.520	109.376	6.913
199	12.395	217.577	10.662	5.880	148.037	10.662	5.880	148.037	7.727	4.550	110.997	7.017
200	12.433	220.656	10.820	5.898	149.365	10.820	5.898	149.365	7.853	4.580	112.617	7.120
201	12.509	221.810	10.948	5.942	150.214	10.948	5.942	150.214	7.929	4.623	113.207	7.195
202	12.585	222.965	11.075	5.986	151.063	11.075	5.986	151.063	8.005	4.666	113.796	7.270
203	12.661	224.119	11.203	6.029	151.912	11.203	6.029	151.912	8.080	4.709	114.385	7.345

204	12.738	225.274	11.330	6.073	152.760	11.330	6.073	152.760	8.156	4.752	114.974	7.419
205	12.814	226.429	11.458	6.117	153.609	11.458	6.117	153.609	8.232	4.795	115.563	7.494
206	12.891	228.364	11.530	6.174	154.888	11.530	6.174	154.888	8.295	4.848	116.847	7.544
207	12.969	230.299	11.601	6.231	156.166	11.601	6.231	156.166	8.357	4.901	118.131	7.594
208	13.046	232.235	11.673	6.288	157.445	11.673	6.288	157.445	8.420	4.955	119.415	7.644
209	13.124	234.170	11.745	6.345	158.724	11.745	6.345	158.724	8.483	5.008	120.699	7.694
210	13.201	236.105	11.817	6.401	160.002	11.817	6.401	160.002	8.545	5.061	121.983	7.744
211	13.233	239.385	11.984	6.451	161.606	11.984	6.451	161.606	8.670	5.090	123.498	7.846
212	13.264	242.664	12.152	6.500	163.210	12.152	6.500	163.210	8.794	5.119	125.012	7.948
213	13.296	245.943	12.319	6.550	164.814	12.319	6.550	164.814	8.919	5.147	126.526	8.051
214	13.328	249.223	12.486	6.599	166.418	12.486	6.599	166.418	9.043	5.176	128.040	8.153
215	13.359	252.502	12.653	6.649	168.022	12.653	6.649	168.022	9.168	5.204	129.554	8.255
216	13.423	253.243	12.780	6.693	168.948	12.780	6.693	168.948	9.251	5.240	130.345	8.328
217	13.487	253.983	12.906	6.737	169.874	12.906	6.737	169.874	9.334	5.275	131.136	8.400
218	13.551	254.724	13.032	6.782	170.800	13.032	6.782	170.800	9.417	5.310	131.928	8.472
219	13.615	255.464	13.159	6.826	171.726	13.159	6.826	171.726	9.500	5.345	132.719	8.545
220	13.679	256.204	13.285	6.870	172.653	13.285	6.870	172.653	9.584	5.380	133.510	8.617
221	13.852	256.417	13.314	6.946	173.200	13.314	6.946	173.200	9.598	5.436	133.899	8.630
222	14.025	256.629	13.343	7.022	173.748	13.343	7.022	173.748	9.612	5.492	134.287	8.642
223	14.198	256.841	13.371	7.098	174.295	13.371	7.098	174.295	9.627	5.548	134.676	8.655
224	14.371	257.053	13.400	7.173	174.843	13.400	7.173	174.843	9.641	5.604	135.064	8.667
225	14.544	257.265	13.429	7.249	175.391	13.429	7.249	175.391	9.655	5.660	135.453	8.680
226	14.737	257.645	13.440	7.334	175.611	13.440	7.334	175.611	9.664	5.699	135.633	8.688
227	14.929	258.025	13.452	7.419	175.831	13.452	7.419	175.831	9.674	5.738	135.814	8.696
228	15.122	258.405	13.464	7.504	176.051	13.464	7.504	176.051	9.683	5.776	135.995	8.704
229	15.315	258.785	13.475	7.589	176.271	13.475	7.589	176.271	9.692	5.815	136.176	8.712
230	15.507	259.165	13.487	7.674	176.491	13.487	7.674	176.491	9.701	5.854	136.356	8.720
231	15.616	259.629	13.498	7.710	176.612	13.498	7.710	176.612	9.710	5.875	136.581	8.727
232	15.725	260.092	13.508	7.746	176.732	13.508	7.746	176.732	9.719	5.897	136.806	8.733
233	15.834	260.556	13.519	7.782	176.853	13.519	7.782	176.853	9.728	5.918	137.031	8.740
234	15.944	261.020	13.530	7.818	176.974	13.530	7.818	176.974	9.737	5.940	137.256	8.746
235	16.053	261.484	13.540	7.853	177.095	13.540	7.853	177.095	9.746	5.961	137.482	8.753
236	16.085	261.890	13.551	7.867	177.463	13.551	7.867	177.463	9.754	5.977	137.680	8.760
237	16.117	262.296	13.561	7.881	177.830	13.561	7.881	177.830	9.761	5.994	137.879	8.767
238	16.149	262.701	13.572	7.894	178.198	13.572	7.894	178.198	9.769	6.010	138.078	8.774
239	16.181	263.107	13.582	7.908	178.566	13.582	7.908	178.566	9.777	6.026	138.277	8.781
240	16.214	263.513	13.592	7.922	178.933	13.592	7.922	178.933	9.785	6.042	138.476	8.788