



APPENDIX AVAILABLE ON THE HEI WEB SITE

Research Report 179

**Development and Application of an Aerosol Screening Model
for Size-Resolved Urban Aerosols**

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**Appendix E. Speed- and Temperature-Dependent
CO Emission Factors from EMFAC**

Note: Appendices available only on the Web have been reviewed solely for spelling, grammar, and cross-references to the main text. They have not been formatted or fully edited by HEI.

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Appendix E. Speed- and Temperature-Dependent CO Emission Factors from EMFAC

The values from Table F.1 (from EMFAC 2007) were used when speed and temperature-dependent CO emissions were input into the model. Model and observation CO concentrations are not reported in this report as skill for CO at the Long Beach central (EPA) monitor was poor, due to large variation in background CO concentrations and limited influence of localized traffic on central monitor CO.

Table E.1. 2007 CO emission factor in g/mi for all cars in South Coast Air Basin as function of ambient temperature and traffic velocity

Traffic Velocity (miles/hr)	Temperature (K)						
	283.0	288.6	294.1	299.7	305.2	310.8	316.3
0	4.52	4.52	4.52	4.52	4.524	4.52	4.52
5	9.12	8.69	8.54	9.44	10.95	12.79	11.18
10	7.29	6.97	6.87	7.65	8.91	10.43	8.98
15	6.05	5.79	5.73	6.41	7.48	8.78	7.48
20	5.18	4.96	4.92	5.53	6.47	7.61	6.43
25	4.57	4.38	4.35	4.90	5.74	6.76	5.68
30	4.13	3.96	3.94	4.43	5.20	6.13	5.14
35	3.82	3.65	3.62	4.09	4.8	5.66	4.75
40	3.61	3.45	3.41	3.85	4.52	5.34	4.50
45	3.51	3.34	3.30	3.70	4.36	5.15	4.37
50	3.51	3.33	3.27	3.66	4.31	5.10	4.37
55	3.65	3.45	3.36	3.74	4.41	5.21	4.54
60	3.97	3.72	3.60	3.98	4.69	5.55	4.92
65	4.56	4.24	4.06	4.46	5.25	6.21	5.63