

Appendix 11

Final MOBILE Emission Factors

Final MOBILE emission Factors

This Appendix contains a sample of final emission factors. These factors have been adjusted to reflect the I/M program and ATP settings discussed in Appendix 8.

The factors are difficult to display in printed format due to the size of the output file. Each output file consists of the following columns:

Column	Header	Explanation
1	RATE	Indicates this is an emission factor, in grams/mile
2	POL	Indicates pollutant (VOC, CO, or NO _x)
3	SPEED	Indicates the speed, in mph, that the factor applies to
4	ETYPE	Emission type, indicates engine operation
5	HOUR	MOBILE6 hour of the day
6	RDW	MOBILE6 roadway classification
7-34		MOBILE6 vehicle categories

As each file is 9,900 rows long, displaying the entire file is difficult in a printed format. These files are available by year and county on the CD-ROM of the conformity analysis.

The following page is an example of a small part of the 2009 emission factors generated for Harris County.

SAMPLE PAGE of a final emission factor file: summer2009harr.rat

RATE POL	SPEED	ETYPE	HOUR	RDW	LDGV	LDGT1	LDGT2	LDGT3	LDGT4
RATE VOC	2.5	COMPOSITE	HOUR00	FRWY	4.4406714	4.7415266	4.8929133	2.3938403	2.5576665
RATE VOC	5	COMPOSITE	HOUR00	FRWY	2.0659422	2.3240139	2.4312551	1.2127836	1.3279644
RATE VOC	10	COMPOSITE	HOUR00	FRWY	1.4282531	1.6475151	1.7218965	.80921667	.88799601
RATE VOC	15	COMPOSITE	HOUR00	FRWY	1.2723799	1.4770846	1.5388166	.69028443	.75503855
RATE VOC	20	COMPOSITE	HOUR00	FRWY	1.2085006	1.4111537	1.4708569	.65137445	.71393609
RATE VOC	25	COMPOSITE	HOUR00	FRWY	1.1751033	1.3766080	1.4350934	.63238966	.69363552
RATE VOC	30	COMPOSITE	HOUR00	FRWY	1.1517143	1.3526142	1.4102877	.61886477	.67923337
RATE VOC	35	COMPOSITE	HOUR00	FRWY	1.1320675	1.3318111	1.3883920	.60605472	.66522306
RATE VOC	40	COMPOSITE	HOUR00	FRWY	1.1193206	1.3190453	1.3753690	.59910607	.65798103
RATE VOC	45	COMPOSITE	HOUR00	FRWY	1.1085182	1.3082021	1.3642689	.59295564	.65153724
RATE VOC	50	COMPOSITE	HOUR00	FRWY	1.0983394	1.2977916	1.3536013	.58750182	.64579004
RATE VOC	55	COMPOSITE	HOUR00	FRWY	1.0893983	1.2883515	1.3439040	.58319145	.64118629
RATE VOC	60	COMPOSITE	HOUR00	FRWY	1.0824738	1.2809058	1.3362010	.57973927	.63744074
RATE VOC	65	COMPOSITE	HOUR00	FRWY	1.0769249	1.2748249	1.3299075	.57679152	.63427346
RATE VOC	2.5	EXH_RUNNING	HOUR00	FRWY	.51587086	.68075990	.79289603	.64193958	.76574426
RATE VOC	5	EXH_RUNNING	HOUR00	FRWY	.31711369	.40969753	.47768792	.38988128	.46504056
RATE VOC	10	EXH_RUNNING	HOUR00	FRWY	.16510543	.21161069	.24674132	.19995829	.23871612
RATE VOC	15	EXH_RUNNING	HOUR00	FRWY	.10587467	.13623614	.15871742	.12707579	.15180847
RATE VOC	20	EXH_RUNNING	HOUR00	FRWY	.09689375	.12408822	.14454051	.11666952	.13920964
RATE VOC	25	EXH_RUNNING	HOUR00	FRWY	.09159577	.11689283	.13612745	.11047799	.13170239
RATE VOC	30	EXH_RUNNING	HOUR00	FRWY	.08813927	.11217371	.13059637	.10639384	.12674094
RATE VOC	35	EXH_RUNNING	HOUR00	FRWY	.08375825	.10603046	.12336061	.10110867	.12025553
RATE VOC	40	EXH_RUNNING	HOUR00	FRWY	.08336045	.10504013	.12211319	.10048753	.11934104
RATE VOC	45	EXH_RUNNING	HOUR00	FRWY	.08296264	.10404980	.12086575	.09986642	.11842653
RATE VOC	50	EXH_RUNNING	HOUR00	FRWY	.08256483	.10305948	.11961831	.09924531	.11751204
RATE VOC	55	EXH_RUNNING	HOUR00	FRWY	.08216702	.10206913	.11837089	.09862420	.11659754
RATE VOC	60	EXH_RUNNING	HOUR00	FRWY	.08176921	.10107882	.11712343	.09800306	.11568304
RATE VOC	65	EXH_RUNNING	HOUR00	FRWY	.08132208	.10004422	.11587599	.09727801	.11473844
RATE VOC	2.5	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	5	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	10	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	15	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	20	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	25	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	30	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	35	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	40	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	45	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	50	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	55	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	60	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	65	START	HOUR00	FRWY	.23130577	.30745840	.34670913	.21304957	.25307107
RATE VOC	2.5	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	5	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	10	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	15	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	20	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	25	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	30	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	35	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	40	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	45	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	50	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	55	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	60	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	65	Hot_Soak	HOUR00	FRWY	.27339941	.28861445	.28861445	.08924606	.08924606
RATE VOC	2.5	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	5	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	10	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	15	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395

RATE VOC	20	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	25	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	30	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	35	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	40	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	45	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	50	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	55	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	60	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	65	Rest_Loss	HOUR00	FRWY	.45187214	.53674763	.53674763	.15393395	.15393395
RATE VOC	2.5	Run_Loss	HOUR00	FRWY	2.9603276	2.9167828	2.9167828	1.2867068	1.2867068
RATE VOC	5	Run_Loss	HOUR00	FRWY	.78435516	.77033251	.77033251	.35770836	.35770836
RATE VOC	10	Run_Loss	HOUR00	FRWY	.29867443	.29192078	.29192078	.14406447	.14406447
RATE VOC	15	Run_Loss	HOUR00	FRWY	.20203204	.19686485	.19686485	.09801463	.09801463
RATE VOC	20	Run_Loss	HOUR00	FRWY	.14713358	.14308193	.14308193	.06951101	.06951101
RATE VOC	25	Run_Loss	HOUR00	FRWY	.11903432	.11573152	.11573152	.05671768	.05671768
RATE VOC	30	Run_Loss	HOUR00	FRWY	.09910182	.09645692	.09645692	.04727697	.04727697
RATE VOC	35	Run_Loss	HOUR00	FRWY	.08383605	.08179705	.08179705	.03975207	.03975207
RATE VOC	40	Run_Loss	HOUR00	FRWY	.07148701	.07002142	.07002142	.03342454	.03342454
RATE VOC	45	Run_Loss	HOUR00	FRWY	.06108241	.06016859	.06016859	.02789525	.02789525
RATE VOC	50	Run_Loss	HOUR00	FRWY	.05130138	.05074850	.05074850	.02306252	.02306252
RATE VOC	55	Run_Loss	HOUR00	FRWY	.04275806	.04229866	.04229866	.01937329	.01937329
RATE VOC	60	Run_Loss	HOUR00	FRWY	.03623134	.03584323	.03584323	.01654225	.01654225
RATE VOC	65	Run_Loss	HOUR00	FRWY	.03112960	.03079712	.03079712	.01431952	.01431952
RATE VOC	2.5	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	5	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	10	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	15	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	20	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	25	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	30	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	35	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	40	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	45	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	50	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	55	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	60	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437
RATE VOC	65	Crankcase	HOUR00	FRWY	.00789592	.01116325	.01116325	.00896437	.00896437