

## **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 <sub>x</sub> )
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 2011 emission factors generated for Harris County.

**SAMPLE PAGE of a final emission factor file: summer2001harr\_LED.rat**

RATE POL	SPEED	ETYPE	HOUR	RDW	LDGV	LDGT1	LDGT2	LDGT3
RATE VOC	2.5	COMPOSITE	HOUR00	FRWY	4.0881354	5.4122670	5.5832549	2.6563053
RATE VOC	5	COMPOSITE	HOUR00	FRWY	1.9365977	2.7269949	2.8491022	1.3461504
RATE VOC	10	COMPOSITE	HOUR00	FRWY	1.3557829	1.9812234	2.0670712	.90238114
RATE VOC	15	COMPOSITE	HOUR00	FRWY	1.2126560	1.7948023	1.8667046	.77252367
RATE VOC	20	COMPOSITE	HOUR00	FRWY	1.1545089	1.7230302	1.7926654	.73028926
RATE VOC	25	COMPOSITE	HOUR00	FRWY	1.1242230	1.6848837	1.7531585	.70930493
RATE VOC	30	COMPOSITE	HOUR00	FRWY	1.1029868	1.6584856	1.7258533	.69442372
RATE VOC	35	COMPOSITE	HOUR00	FRWY	1.0852743	1.6358678	1.7020431	.68041686
RATE VOC	40	COMPOSITE	HOUR00	FRWY	1.0738913	1.6221479	1.6880684	.67290682
RATE VOC	45	COMPOSITE	HOUR00	FRWY	1.0642691	1.6105820	1.6762478	.66629341
RATE VOC	50	COMPOSITE	HOUR00	FRWY	1.0552306	1.5993744	1.6647855	.66036782
RATE VOC	55	COMPOSITE	HOUR00	FRWY	1.0473404	1.5890698	1.6542261	.65558876
RATE VOC	60	COMPOSITE	HOUR00	FRWY	1.0412778	1.5809892	1.6458907	.65176553
RATE VOC	65	COMPOSITE	HOUR00	FRWY	1.0364418	1.5744794	1.6391261	.64861936
RATE VOC	2.5	EXH_RUNNING	HOUR00	FRWY	.47244814	.73542523	.85942262	.70070415
RATE VOC	5	EXH_RUNNING	HOUR00	FRWY	.29330191	.44406569	.51918250	.42587518
RATE VOC	10	EXH_RUNNING	HOUR00	FRWY	.15307587	.22999195	.26884931	.21882467
RATE VOC	15	EXH_RUNNING	HOUR00	FRWY	.09783025	.14817744	.17308919	.13924783
RATE VOC	20	EXH_RUNNING	HOUR00	FRWY	.08973752	.13489563	.15754041	.12767803
RATE VOC	25	EXH_RUNNING	HOUR00	FRWY	.08495286	.12701652	.14830090	.12078270
RATE VOC	30	EXH_RUNNING	HOUR00	FRWY	.08182220	.12183871	.14221599	.11622458
RATE VOC	35	EXH_RUNNING	HOUR00	FRWY	.07798925	.11527142	.13445630	.11038886
RATE VOC	40	EXH_RUNNING	HOUR00	FRWY	.07784450	.11437096	.13330109	.10970497
RATE VOC	45	EXH_RUNNING	HOUR00	FRWY	.07769975	.11347051	.13214586	.10902107
RATE VOC	50	EXH_RUNNING	HOUR00	FRWY	.07755501	.11257007	.13099065	.10833719
RATE VOC	55	EXH_RUNNING	HOUR00	FRWY	.07741026	.11166963	.12983544	.10765329
RATE VOC	60	EXH_RUNNING	HOUR00	FRWY	.07726552	.11076919	.12868022	.10696938
RATE VOC	65	EXH_RUNNING	HOUR00	FRWY	.07705586	.10986875	.12752500	.10628549
RATE VOC	2.5	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	5	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	10	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	15	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	20	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	25	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	30	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	35	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	40	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	45	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	50	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	55	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	60	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036

RATE VOC	65	START	HOUR00	FRWY	.21221162	.34018936	.38717982	.23125036
RATE VOC	2.5	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	5	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	10	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	15	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	20	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	25	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	30	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	35	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	40	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	45	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	50	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	55	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	60	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	65	Hot_Soak	HOUR00	FRWY	.27173820	.39672541	.39672541	.11057751
RATE VOC	2.5	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	5	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	10	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	15	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	20	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	25	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	30	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	35	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	40	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	45	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	50	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	55	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	60	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	65	Rest_Loss	HOUR00	FRWY	.43859857	.68105530	.68105530	.17421442
RATE VOC	2.5	Run_Loss	HOUR00	FRWY	2.6845667	3.2462081	3.2462081	1.4289387
RATE VOC	5	Run_Loss	HOUR00	FRWY	.71217519	.85229557	.85229557	.39361274
RATE VOC	10	Run_Loss	HOUR00	FRWY	.27158647	.32059776	.32059776	.15689398
RATE VOC	15	Run_Loss	HOUR00	FRWY	.18370513	.21599122	.21599122	.10661335
RATE VOC	20	Run_Loss	HOUR00	FRWY	.13365083	.15750084	.15750084	.07594874
RATE VOC	25	Run_Loss	HOUR00	FRWY	.10814958	.12723350	.12723350	.06185974
RATE VOC	30	Run_Loss	HOUR00	FRWY	.09004398	.10601320	.10601320	.05153665
RATE VOC	35	Run_Loss	HOUR00	FRWY	.07616443	.08996266	.08996266	.04336551
RATE VOC	40	Run_Loss	HOUR00	FRWY	.06492619	.07714321	.07714321	.03653936
RATE VOC	45	Run_Loss	HOUR00	FRWY	.05544881	.06647781	.06647781	.03060985
RATE VOC	50	Run_Loss	HOUR00	FRWY	.04655503	.05617066	.05617066	.02536814
RATE VOC	55	Run_Loss	HOUR00	FRWY	.03880952	.04676652	.04676652	.02127298
RATE VOC	60	Run_Loss	HOUR00	FRWY	.03289168	.03958632	.03958632	.01813366
RATE VOC	65	Run_Loss	HOUR00	FRWY	.02826539	.03397699	.03397699	.01567138
RATE VOC	2.5	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	5	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	10	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	15	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	20	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	25	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	30	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	35	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	40	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	45	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	50	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	55	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020
RATE VOC	60	Crankcase	HOUR00	FRWY	.00857218	.01266361	.01266361	.01062020

RATE VOC 65 Crankcase HOUR00 FRWY .00857218 .01266361 .01266361 .01062020