APPENDIX B

On-Road Mobile Sources

Appendix B

Estimation of Air Toxics from On-Road Motor Vehicles

The U.S. Environmental Protection Agency (EPA) recently developed county-level estimates of air toxics from on-road motor vehicles as part of the federal rulemaking on hazardous air pollutants (HAPs) from motor vehicles.[*] However, the base-year inventories prepared for that effort were for 1996, and because these estimates were prepared for each county in the U.S., the use of locally derived data was limited. As a result, the EPA estimates could not be used for the 1999 calendar year inventories required for this study, and independent estimates were prepared.

The general approach used to develop HAP inventories for this project followed the methodology developed by EPA and its contractors to generate the nationwide inventories used to support the federal rulemaking on motor vehicle air toxics. As explained below, this method relied on the use of the MOBTOX5b model coupled with fleet characteristics, fuel parameters, and vehicle miles traveled specific to each of the three areas analyzed in this effort (i.e., Anchorage, Fairbanks, and Juneau).

MOBTOX5b

The MOBTOX5b model was developed by Sierra Research under contract to EPA .[**] This model is similar to MOBILE5b in function and design. However, it was extensively modified to incorporate the following features:

- The base emission rates were modified to incorporate new data on in-use vehicle emissions performance and generally reflect changes that were made to EPA's MOBILE6 model;

- The emissions impacts of off-cycle operation (i.e., aggressive driving behavior and air conditioning usage) were incorporated;[***]

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[*] "Control of Emissions of Hazardous Air Pollutants from Mobile Sources," U.S. Environmental Protection Agency, Federal Register, Vol. 66, No. 61, March 29, 2001.

[**] "Analysis of the Impacts of Control Programs on Motor Vehicle Toxics Emissions and Exposure in Urban Areas and Nationwide," Prepared by Sierra Research for the U.S. Environmental Protection Agency, Report No. SR99-11-02, November 30, 1999.

[***] Note that chase car data collected by Sierra Research in Anchorage and Fairbanks during the winter indicate that road and weather conditions limit aggressive driving. As a result, the wintertime estimates prepared for this study do not include an emissions impact from aggressive driving behavior.

- Specific accounting for the emissions impacts of gasoline sulfur level was incorporated; and

- A subroutine was added to estimate emissions of benzene, 1,3-butadiene, formaldehyde, acetaldehye, and MTBE; the model also calculates total organic gas (TOG) emissions.

In addition to the standard inputs required for a MOBILE5b run (e.g., temperature, speed, fuel volatility, etc.) MOBTOX5b requires a number of additional input files that are read by the model. These input files, which are generated outside the model, are a function of local fuel specifications and are used by the model to generate the toxics estimates. Thus, it was necessary to compile data on local fuel parameters (e.g., benzene content, aromatic content, etc.) for each of the areas evaluated in this study.

Once the MOBTOX5b input parameters were compiled and the model was run, the resulting emission factors were combined with local estimates of vehicle miles traveled (VMT) to generate an inventory for each area. Because ambient temperatures and fuel parameters change across seasons, separate inventories were prepared for the winter, spring, summer, and fall.

Finally, MOBTOX5b does not calculate emissions from all HAPs that are of interest with respect to on-road motor vehicles. Thus, the methodology used to generate the 1996 base year National Toxics Inventory (NTI)[*] was used for the compounds not calculated by MOBTOX5b. That method applies a toxics fraction (i.e., mg/mi toxic per mg/mi TOG) to the TOG emission rate calculated by the model. For some metal compounds, toxic fractions were reported as a fraction of PM_{10} emissions. For those compounds, the PART5 model was used to generate PM_{10} emission rates, and the toxics fractions contained in the documentation for the 1996 NTI were used to generate the HAP estimates. A summary of the compounds evaluated in this study is contained in Table B-1.

Specific inputs used in the modeling performed for this study are summarized below.

Fuel Specification Data - As described above, fuel specification data for each community were required to develop inputs for the MOBTOX5b model. For Anchorage, fuel surveys were conducted by ADEC and the results of those surveys were provided to Sierra. The estimates for Fairbanks made use of survey data collected by the Alliance of Automobile

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[*] "Documentation for the 1996 Base Year National Toxics Inventory for Onroad Sources," Prepared by Eastern Research Group, Inc., February 9, 2000.

Manufacturers (AAM).[**] Finally, the AAM fuel survey results for Seattle were assumed to best characterize the fuel parameters in Juneau. This assumption was necessary because fuel data collected from Juneau were not available for this study. Table B-2 details the gasoline specifications used in this analysis.

Table B-1 List of Mobile Source Air Toxics Evaluated in this Study		
Acetaldehyde	Ethylbenzene	Nickel Compounds
Acrolein	Formaldehyde	POM as 7 PAH
Arsenic Compounds	n–Hexane	POM as 16 PAH
Benzene	Lead Compounds	Propionaldehyde
1,3-Butadiene	Manganese Compounds	Styrene
Chromium Compounds	Mercury Compounds	Toluene
Dioxin/Furans	MTBE	Xylene

Table B-2 Summary of Fuel Parameters Used to Generate Toxics Estimates						
Fuel Parameter	Anchorage		Fairbanks		Juneau (Seattle)	
	Summer	Winter	Summer	Winter	Summer	Winter
RVP, psi	12.5	14.7	12.5	14.7	8.4	13.9
Oxygenate	n/a	Ethanol	n/a	n/a	n/a	n/a
Sulfur ppm	156	148	156	164	186	378
E200 %	49.8	56.1	49.8	51.5	46.1	48.8
E300 %	91.4	93.6	91.4	92.9	85.8	83.4
Aromatics %	39.4	36.0	37.1	36.5	31.0	30.3
Olefins %	0.3	0.3	0.7	0.6	4.3	8.7
Benzene %	4.20	3.80	3.86	3.44	1.94	1.84
Ethanol %	0.00	9.46	0.00	0.00	0.00	0.00

Temperature Data - Temperature data for each of the communities were also required to develop input files for the MOBTOX5b model. Temperature data were compiled from www.weatherbase.com, which is a website specializing in historical weather information.

[**] Fairbanks is one of the communities historically included in the annual AAM fuel surveys.

Tables B-3, B-4, and B-5 summarize the average seasonal temperatures for the three communities included in this analysis.

Table B-3 Anchorage Temperature Data (°F)			
Season	Average Temperature	Average High Temperature	Average Low Temperature
Winter	16.3	23.0	9.7
Spring	36.0	43.7	28.0
Summer	57.0	63.3	49.0
Fall	35.0	41.3	28.0

Table B-4 Fairbanks Temperature Data (°F)			
Season	Average Temperature	Average High Temperature	Average Low Temperature
Winter	-5.3	2.7	-15.7
Spring	30.3	42.0	18.7
Summer	59.7	69.3	49.0
Fall	24.7	32.3	16.0

Table B-5 Juneau Temperature Data (°F)			
Season	Average Temperature	Average High Temperature	Average Low Temperature
Winter	26.7	31.7	21.0
Spring	40.0	47.0	32.3
Summer	55.0	62.7	46.7
Fall	41.7	46.7	36.0

Other MOBILE5b/MOBTOX5b Inputs - In addition to temperature and fuel parameters, there are a number of other inputs that can be specified by the user to tailor a standard MOBILE run for a local area. In this analysis, the following user-inputs were included in the MOBTOX5b runs. For the most part, these inputs were provided by ADEC and reflect the most current inputs used in ADEC's MOBILE5b modeling efforts.

- Speed – The VMT data (summarized below) were provided as a function of vehicle speed; those speeds were then used as inputs to the MOBTOX5b model.

- Registration Distributions – Locally derived data on vehicle registration distributions were used.

- I/M Program – The runs performed for Anchorage and Fairbanks included the impacts of the I/M programs in those communities.

- VMT Mix – Alternative VMT mix estimates (i.e., VMT fraction by vehicle class) were used in this analysis.

- Mileage Accumulation Rates – Locality-specific mileage accumulation rates were used in this analysis.

The winter MOBTOX5b input files developed for Anchorage, Fairbanks, and Juneau are included in Attachments B-1 to B-3 of Appendix B as sample input files.

VMT Data - VMT estimates for the communities of Anchorage and Fairbanks were provided to Sierra by ADEC. For the city of Juneau, VMT estimates had to be developed by extrapolating average daily travel data on monitored roadways to the rest of the network. The results of the Juneau analysis were reviewed by ADEC for reasonableness. A summary of the VMT estimates used to generate the on-road motor vehicle toxics inventories is given in Tables B-6, B-7, and B-8 for Anchorage, Fairbanks, and Juneau, respectively.

Toxics Results

Tables B-9, B-10, and B-11 summarize the on-road motor vehicle toxic inventories developed for Anchorage, Fairbanks, and Juneau, respectively. As noted above, the estimates were prepared for calendar year 1999, and results are presented separately for winter, spring, summer, and fall. Detailed results by vehicle class are provided in Attachment B-4.

Table B-6	
Anchorage Average Daily Vehicle Miles Traveled (VMT) for 1999	
Speed (mph)	VMT (miles)
10.0	89
18.5	114,584
21.8	692,319
27.5	1,034,080
32.0	702,046
37.0	191,219
41.5	49,346
48.5	215,201
52.2	230,740
55.6	18,355

Table B-7	
Fairbanks Average Daily Vehicle Miles Traveled (VMT) for 1999	
Speed (mph)	VMT (miles)
25.0	17,572
25.1	96,030
27.8	32,926
30.1	207,987
32.0	154,972
33.8	115,578
36.0	10,383
37.8	58,204
46.4	235,506
49.1	198,668
49.9	28,417
55.0	520,905

Table B-8	
Juneau Average Daily Vehicle Miles Traveled (VMT) for 1999	
Speed (mph)	VMT (miles)
20.1	94,432
35.5	114,762
39.0	106,126
51.0	240,816

Table B-9					
Summary of Anchorage On-Road Motor Vehicle Air Toxics Emissions					
	Seasonal Emissions (lbs./day)				**Annual Emissions (tons/year)**
Pollutant	**Winter**	**Spring**	**Summer**	**Fall**	
Benzene	657.7	728.3	721.4	510.3	119.4
Acetaldehyde	99.3	37.1	30.8	79.9	11.3
Formaldehyde	131.7	101.2	84.5	110.9	19.5
1,3-Butadiene	32.2	26.5	20.1	25.9	4.8
Acrolein	7.3	6.4	5.2	6.1	1.1
Ethylbenzene	127.5	115.0	132.3	98.6	21.6
n-Hexane	64.6	76.1	211.5	50.8	18.4
Propionaldehyde	10.6	9.5	8.5	9.4	1.7
Styrene	30.1	25.6	18.2	23.4	4.4
Toluene	895.2	794.9	832.5	690.7	146.6
Xylene	506.0	448.6	463.5	390.8	82.5
Arsenic Compounds	1.36E-03	1.36E-03	1.36E-03	1.36E-03	2.49E-04
Chromium Compounds	3.48E-02	3.48E-02	3.48E-02	3.48E-02	6.35E-03
Manganese Compounds	1.37E-02	1.37E-02	1.37E-02	1.37E-02	2.50E-03
Mercury Compounds	6.80E-04	6.80E-04	6.80E-04	6.80E-04	1.24E-04
Nickel Compounds	2.59E-02	2.59E-02	2.59E-02	2.59E-02	4.72E-03
Dioxins/Furans	4.13E-07	4.13E-07	4.13E-07	4.13E-07	7.54E-08
Lead Compounds	6.24E-02	6.24E-02	6.24E-02	6.24E-02	1.14E-02
POM as 7-PAH	6.56E-02	5.65E-02	4.23E-02	5.25E-02	9.90E-03
POM as 16-PAH	1.33E-01	1.16E-01	9.13E-02	1.10E-01	2.06E-02

	Table B-10 Summary of Fairbanks On-Road Motor Vehicle Air Toxics Emissions				
Pollutant	**Seasonal Emissions (lbs./day)**				**Annual Emissions (tons/year)**
	Winter	**Spring**	**Summer**	**Fall**	
Benzene	298.2	292.2	258.5	238.6	49.6
Acetaldehyde	23.0	20.7	16.1	19.2	3.6
Formaldehyde	66.1	57.5	44.7	54.8	10.2
1,3-Butadiene	18.5	14.3	9.8	14.7	2.6
Acrolein	3.7	3.4	2.5	3.1	0.6
Ethylbenzene	58.8	52.0	53.2	47.4	9.6
n-Hexane	30.2	26.9	81.7	24.6	7.5
Propionaldehyde	5.6	5.2	4.3	4.8	0.9
Styrene	14.0	12.4	7.8	11.3	2.1
Toluene	411.5	363.7	335.9	331.1	65.8
Xylene	232.9	205.9	187.6	187.5	37.1
Arsenic Compounds	9.95E-04	9.95E-04	9.95E-04	9.95E-04	1.82E-04
Chromium Compounds	1.71E-02	1.71E-02	1.71E-02	1.71E-02	3.13E-03
Manganese Compounds	7.14E-03	7.14E-03	7.14E-03	7.14E-03	1.30E-03
Mercury Compounds	4.88E-04	4.88E-04	4.88E-04	4.88E-04	8.90E-05
Nickel Compounds	1.29E-02	1.29E-02	1.29E-02	1.29E-02	2.35E-03
Dioxins/Furans	3.08E-07	3.08E-07	3.08E-07	3.08E-07	5.63E-08
Lead Compounds	3.06E-02	3.06E-02	3.06E-02	3.06E-02	5.59E-03
POM as 7-PAH	3.15E-02	2.83E-02	1.93E-02	2.60E-02	4.79E-03
POM as 16-PAH	6.63E-02	6.00E-02	4.37E-02	5.55E-02	1.03E-02

Table B-11 Summary of Juneau On-Road Motor Vehicle Air Toxics Emissions					
	Seasonal Emissions (lbs./day)				Annual Emissions (tons/year)
Pollutant	Winter	Spring	Summer	Fall	
Benzene	109.7	79.1	66.3	88.6	15.7
Acetaldehyde	11.5	9.0	7.8	9.7	1.7
Formaldehyde	32.7	26.0	22.7	27.8	5.0
1,3-Butadiene	10.8	7.4	6.1	8.6	1.5
Acrolein	2.0	1.5	1.3	1.6	0.3
Ethylbenzene	31.2	22.7	19.8	26.1	4.6
n-Hexane	15.6	15.3	17.3	17.9	3.0
Propionaldehyde	1.9	1.5	1.3	1.7	0.3
Styrene	7.1	4.8	3.9	5.5	1.0
Toluene	219.5	156.9	133.8	180.5	31.5
Xylene	124.0	88.5	75.3	101.8	17.8
Arsenic Compounds	3.36E-05	3.39E-05	3.39E-05	3.36E-05	6.16E-06
Chromium Compounds	5.85E-03	5.85E-03	5.85E-03	5.85E-03	1.07E-03
Manganese Compounds	2.40E-03	2.40E-03	2.40E-03	2.40E-03	4.38E-04
Mercury Compounds	4.49E-05	4.49E-05	4.49E-05	4.49E-05	8.20E-06
Nickel Compounds	4.56E-03	4.57E-03	4.57E-03	4.56E-03	8.33E-04
Dioxins/Furans	5.59E-08	5.69E-08	5.69E-08	5.59E-08	1.03E-08
Lead Compounds	1.13E-02	1.13E-02	1.13E-02	1.13E-02	2.06E-03
POM as 7-PAH	1.57E-02	1.11E-02	9.20E-03	1.25E-02	2.21E-03
POM as 16-PAH	3.13E-02	2.30E-02	1.95E-02	2.56E-02	4.54E-03

Uncertainties and Recommended Improvements

The emissions modeling performed for this study was based on EPA's MOBTOX5b model. Although a significant amount of effort went into updating that model to incorporate the changes planned for MOBILE6, it is not clear that those updates are consistent with the final version of the MOBILE6 model. Thus, it is recommended that the inventories prepared for this effort be re-evaluated once MOBILE6 is finalized. EPA has indicated that it will include toxics estimates in MOBILE6.2, which is anticipated to be released near the end of 2001 or beginning of 2002.

Attachment B-1

Winter MOBTOX5b Input File for Anchorage

MOBTOX5b Input File
Anchorage – Winter I/M

```
1     PROMPT - vertical flag input, no prompting
Anchorage  - 1999 MOBTOX5b - Winter With IM
1     TAMFLG - default tampering rates
1     SPDFLG - one speed per scenario for all IV
3     VMFLAG - user supplied single VMT mix for all scenarios
4     MYMRFG - user supplied mileage accumulation rates and registration
distributions
2     NEWFLG - default exhaust emission rates
3     IMFLAG - I/M program (see I/M characteristics record below)
1     ALHFLG - no additional correction factor inputs
2     ATPFLG - anti-tampering program (see ATP characteristics record below)
5     RLFLAG - zero out refueling emissions
1     LOCFLG - read local area parameters as 2nd req'd scenario record (i.e.,for
each scenario)
2     TEMFLG - user inputs specific ambient temperature
3     OUTFMT - MOBILE4 112 column numerical output format + BMY
1     PRTFLG - print exhaust CO emission factors only
1     IDLFLG - print idle emissions results
7 1   NMHFLG - print NMHC
2     HCFLAG - print HC components
.681.191.051.006.008.030.033.000                              VMT MIX RECORD
(VMFLAG=3)
.15920 .15058 .14229 .13436 .12676 .11951 .11260 .10603 .09981 .09393 LDGV
.08839 .08320 .07834 .07384 .06967 .06585 .06237 .05923 .05644 .05399
.05189 .05012 .04870 .04762 .04689
.17133 .16070 .15057 .14095 .13183 .12322 .11510 .10750 .10039 .09379 LDGT1
.08770 .08210 .07701 .07243 .06835 .06477 .06169 .05912 .05706 .05549
.05443 .05388 .05350 .05325 .05310
.17133 .16070 .15057 .14095 .13183 .12322 .11510 .10750 .10039 .09379 LDGT2
.08770 .08210 .07701 .07243 .06835 .06477 .06169 .05912 .05706 .05549
.05443 .05388 .05350 .05325 .05310
.17251 .16185 .15185 .14246 .13365 .12539 .11764 .11037 .10355 .09715 HDGV
.09114 .08551 .08022 .07526 .07061 .06625 .06215 .05831 .05471 .05132
.04815 .04517 .04238 .03976 .03730
.17825 .16478 .15233 .14081 .13017 .12033 .11124 .10283 .09506 .08788 LDDV
.08123 .07509 .06942 .06417 .05932 .05484 .05069 .04686 .04332 .04005
.03702 .03422 .03163 .02924 .02703
.21004 .19125 .17415 .15858 .14440 .13149 .11973 .10902 .09927 .09040 LDDT
.08231 .07495 .06825 .06215 .05659 .05153 .04692 .04272 .03890 .03543
.03226 .02937 .02675 .02435 .02218
.35129 .33070 .31217 .29553 .28059 .26735 .25644 .24516 .23604 .22813 HDDV
.22030 .21492 .20911 .20377 .19897 .19430 .19210 .18841 .18547 .18084
.17203 .16336 .15516 .14737 .14000
.04786 .04475 .04164 .03853 .03543 .03232 .02921 .02611 .02300 .01989
.01678 .01368 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000
.00000 .00000 .00000 .00000 .00000      MC
 .050 .070 .078 .061 .056 .084 .070 .074 .057 .062              LDGV Reg
dist
 .069 .056 .044 .035 .033 .037 .022 .009 .009 .004
 .004 .004 .004 .003 .005
 .045 .063 .062 .076 .062 .060 .087 .046 .050 .063              LDGT1 Reg
dist
 .074 .059 .038 .029 .032 .023 .031 .020 .015 .012
 .006 .008 .004 .008 .027
 .045 .063 .062 .076 .062 .060 .087 .046 .050 .063              LDGT2 Reg
dist
 .074 .059 .038 .029 .032 .023 .031 .020 .015 .012
 .006 .008 .004 .008 .027
```

```
 .123 .214 .131 .098 .060 .031 .042 .027 .022 .023                    HDGV Reg
dist
 .026 .014 .017 .014 .006 .015 .013 .017 .012 .005
 .011 .006 .016 .003 .052
 .050 .070 .078 .061 .056 .084 .070 .074 .057 .062                    LDDV Reg
dist
 .069 .056 .044 .035 .033 .037 .022 .009 .009 .004
 .004 .004 .004 .003 .005
 .045 .063 .062 .076 .062 .060 .087 .046 .050 .063                    LDDT Reg
dist
 .074 .059 .038 .029 .032 .023 .031 .020 .015 .012
 .006 .008 .004 .008 .027
 .030 .073 .062 .031 .049 .049 .030 .044 .034 .031                    HDDV Reg
dist
 .047 .048 .045 .027 .031 .047 .035 .029 .024 .031
 .024 .031 .025 .016 .110
 .144 .168 .135 .109 .088 .070 .056 .045 .036 .029
 .023 .097 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000       MC
0107            ZM    DR1    DR2 Flex Pt  File: NTR_IM_B.BER
1 1 1 65 67  7.488  0.186                              LDGV
1 1 1 68 69  4.576  0.258
1 1 1 70 71  3.099  0.382
1 1 1 72 74  3.491  0.165
1 1 1 75 75  1.068  0.282
1 1 1 76 77  1.071  0.283
1 1 1 78 79  1.074  0.284
1 1 1 80 80  0.371  0.211
1 1 1 81 81  0.464  0.120  0.005  14.63
1 1 1 82 82  0.460  0.119  0.006  14.63
1 1 1 83 83  0.336  0.064
1 1 1 84 84  0.346  0.061
1 1 1 85 85  0.350  0.057
1 1 1 86 86  0.358  0.046
1 1 1 87 87  0.360  0.045
1 1 1 88 88  0.228  0.036
1 1 1 89 89  0.231  0.037
1 1 1 90 90  0.228  0.036
1 1 1 91 91  0.224  0.035
1 1 1 92 92  0.226  0.035
1 1 1 93 93  0.224  0.035
1 1 1 94 94  0.197  0.031
1 1 1 95 95  0.169  0.028
1 1 1 96 00  0.156  0.026  0.024   9.05
1 1 1 01 50  0.064  0.014  0.016  14.64
1 2 1 65 67  7.488  0.186                              LDGT1
1 2 1 68 69  4.576  0.258
1 2 1 70 71  3.099  0.382
1 2 1 72 74  3.470  0.176
1 2 1 75 75  1.802  0.270
1 2 1 76 76  1.813  0.272
1 2 1 77 78  1.807  0.271
1 2 1 79 80  0.876  0.282
1 2 1 81 81  1.406  0.086
1 2 1 82 82  1.406  0.086
1 2 1 83 83  1.423  0.087
1 2 1 84 84  0.495  0.061
1 2 1 85 85  0.485  0.061
1 2 1 86 86  0.456  0.062
1 2 1 87 87  0.446  0.066
1 2 1 88 88  0.334  0.049
1 2 1 89 89  0.333  0.047
1 2 1 90 90  0.319  0.045
```

```
1 2 1 91 91  0.293  0.044
1 2 1 92 92  0.313  0.042
1 2 1 93 93  0.312  0.042
1 2 1 94 94  0.264  0.037
1 2 1 95 95  0.216  0.033
1 2 1 96 00  0.192  0.031  0.027  11.84
1 2 1 01 50  0.073  0.015  0.017  17.20
1 3 1 65 69  9.885  0.186                      LDGT2
1 3 1 70 73  6.486  0.258
1 3 1 74 78  6.486  0.176
1 3 1 79 80  0.887  0.286
1 3 1 81 81  1.404  0.086
1 3 1 82 82  1.404  0.086
1 3 1 83 83  1.427  0.088
1 3 1 84 84  0.501  0.061
1 3 1 85 85  0.502  0.063
1 3 1 86 86  0.487  0.067
1 3 1 87 87  0.470  0.069
1 3 1 88 88  0.349  0.051
1 3 1 89 89  0.344  0.048
1 3 1 90 90  0.336  0.048
1 3 1 91 91  0.293  0.044
1 3 1 92 95  0.313  0.042
1 3 1 96 96  0.264  0.038
1 3 1 97 00  0.216  0.034  0.029  13.93
1 3 1 01 50  0.214  0.034  0.028  13.93
1 4 1 80 80  4.285  0.203                      HDGV
1 4 1 81 83  4.289  0.201
1 4 1 84 84  4.366  0.205
1 4 1 85 85  3.148  0.065
1 4 1 86 86  2.791  0.065
1 4 1 87 87  1.347  0.126
1 4 1 88 89  1.194  0.036
1 4 1 90 90  0.879  0.042
1 4 1 91 97  0.851  0.039
1 4 1 98 50  0.863  0.039
1 5 1 65 74  1.406  0.089                      LDDV
1 5 1 75 79  0.454  0.078
1 5 1 80 93  0.310  0.033
1 5 1 94 94  0.261  0.028
1 5 1 95 95  0.213  0.023
1 5 1 96 96  0.189  0.020
1 5 1 97 97  0.189  0.020
1 5 1 98 98  0.189  0.020
1 5 1 99 99  0.189  0.020
1 5 1 00 00  0.189  0.020
1 5 1 01 50  0.057  0.006
1 6 1 65 80  0.916  0.089                      LDDT
1 6 1 81 95  0.458  0.044
1 6 1 96 96  0.369  0.036
1 6 1 97 97  0.281  0.027
1 6 1 98 98  0.281  0.027
1 6 1 99 99  0.281  0.027
1 6 1 00 00  0.281  0.027
1 6 1 01 50  0.281  0.027
1 7 1 88 88  0.879  0.000                      HDDV
1 7 1 89 89  0.886  0.000
1 7 1 90 90  0.746  0.000
1 7 1 91 91  0.652  0.000
1 7 1 92 92  0.653  0.000
1 7 1 93 93  0.632  0.000
1 7 1 94 94  0.362  0.000
1 7 1 95 95  0.359  0.000
```

```
 1 7 1 96 50  0.357  0.000
85 23 75 80 00 00 090 222 2221 2111                    I/M CHARACTERISTICS RECORD
(IMFLAG=2)
85 23 75 20 00 00 090 222 1112 2111
0.85 0.85 0.00 0.70 0.00                               Alt Effectiveness
85 68 20 2222 22 090. 22112221                         ATP CHARACTERISTICS RECORD
(ATPFLG=2)
TX EVP FRACTIONS : An99wb.evp
TX EXH EMISSIONS : An99wb_b.exh
OFFCYCLE FACTORS : no_off.off
 1 99 10.0  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 18.5  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 21.8  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 27.5  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 32.0  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 37.0  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 41.5  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 48.5  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 52.2  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
 1 99 55.6  20. 20.6 27.3 20.6  1                      1ST REQUIRED SCENARIO
RECORD
1999              C  10.  30. 14.7 14.7 20 1 1 1       LAP CHARACTERISTICS RECORD
(LOCFLG=1)
```

Attachment B-2

Winter MOBTOX5b Input File for Fairbanks

MOBTOX5b Input File
Fairbanks Winter I/M


```
1    PROMPT - vertical flag input, no prompting
Fairbanks  - 1999 MOBTOX5b - Winter With IM
1    TAMFLG - default tampering rates
1    SPDFLG - one speed per scenario for all IV
3    VMFLAG - user supplied single VMT mix for all scenarios
4    MYMRFG - user supplied mileage accumulation rates and registration
distributions
2    NEWFLG - user-input exhaust emission rates
3    IMFLAG - I/M program (see I/M characteristics record below)
1    ALHFLG - no additional correction factor inputs
2    ATPFLG - anti-tampering program (see ATP characteristics record below)
5    RLFLAG - zero out refueling emissions
1    LOCFLG - read in local area parameters as 2nd req'd scenario record (i.e.,
for each scenario)
2    TEMFLG - user inputs specific ambient temperature
3    OUTFMT - MOBILE4 112 column numerical output format
1    PRTFLG - print exhaust TOG emission factors only
1    IDLFLG - do not print idle emissions results
7 1  NMHFLG - print NMHC
2    HCFLAG - print HC components
.561.255.071.006.009.046.052.000                              VMT MIX RECORD
(VMFLAG=3)
.16549 .15702 .14895 .14128 .13401 .12714 .12066 .11459 .10892 .10364 LDGV
.09876 .09428 .09020 .08652 .08324 .08036 .07788 .07580 .07411 .07283
.07194 .07145 .07136 .07130 .07127
.18615 .17538 .16517 .15551 .14640 .13784 .12984 .12239 .11549 .10915 LDGT1
.10336 .09812 .09344 .08931 .08573 .08270 .08023 .07831 .07695 .07613
.07587 .07567 .07552 .07540 .07532
.18615 .17538 .16517 .15551 .14640 .13784 .12984 .12239 .11549 .10915 LDGT2
.10336 .09812 .09344 .08931 .08573 .08270 .08023 .07831 .07695 .07613
.07587 .07567 .07552 .07540 .07532
.17251 .16185 .15185 .14246 .13365 .12539 .11764 .11037 .10355 .09715 HDGV
.09114 .08551 .08022 .07526 .07061 .06625 .06215 .05831 .05471 .05132
.04815 .04517 .04238 .03976 .03730
.17825 .16478 .15233 .14081 .13017 .12033 .11124 .10283 .09506 .08788 LDGV
.08123 .07509 .06942 .06417 .05932 .05484 .05069 .04686 .04332 .04005
.03702 .03422 .03163 .02924 .02703
.21004 .19125 .17415 .15858 .14440 .13149 .11973 .10902 .09927 .09040 LDDT
.08231 .07495 .06825 .06215 .05659 .05153 .04692 .04272 .03890 .03543
.03226 .02937 .02675 .02435 .02218
.35129 .33070 .31217 .29553 .28059 .26735 .25644 .24516 .23604 .22813 HDDV
.22030 .21492 .20911 .20377 .19897 .19430 .19210 .18841 .18547 .18084
.17203 .16336 .15516 .14737 .14000
.04786 .04475 .04164 .03853 .03543 .03232 .02921 .02611 .02300 .01989
.01678 .01368 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000
.00000 .00000 .00000 .00000 .00000     MC
 .055 .073 .087 .084 .066 .087 .068 .078 .058 .062                LDGV Reg
dist
 .061 .045 .032 .030 .026 .026 .018 .013 .004 .004
 .002 .004 .002 .002 .013
 .050 .066 .064 .069 .064 .071 .092 .054 .049 .063                LDGT1 Reg
dist
 .055 .050 .042 .029 .027 .033 .019 .015 .008 .015
 .007 .009 .007 .009 .033
 .050 .066 .064 .069 .064 .071 .092 .054 .049 .063                LDGT2 Reg
dist
 .055 .050 .042 .029 .027 .033 .019 .015 .008 .015
 .007 .009 .007 .009 .033
```

```
 .187 .194 .118 .045 .024 .038 .019 .026 .012 .014                HDGV Reg
dist
 .017 .009 .012 .014 .012 .024 .017 .019 .017 .007
 .014 .007 .017 .005 .135
 .055 .073 .087 .084 .066 .087 .068 .078 .058 .062                LDDV Reg
dist
 .061 .045 .032 .030 .026 .026 .018 .013 .004 .004
 .002 .004 .002 .002 .013
 .050 .066 .064 .069 .064 .071 .092 .054 .049 .063                LDDT Reg
dist
 .055 .050 .042 .029 .027 .033 .019 .015 .008 .015
 .007 .009 .007 .009 .033
 .028 .058 .044 .041 .089 .031 .043 .026 .036 .035                HDDV Reg
dist
 .040 .034 .020 .021 .022 .037 .029 .022 .032 .040
 .037 .023 .025 .014 .174
 .144 .168 .135 .109 .088 .070 .056 .045 .036 .029
 .023 .097 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000      MC
0107          ZM   DR1   DR2 Flex Pt  File: NTR_IM_B.BER
1 1 1 65 67  7.488  0.186                     LDGV
1 1 1 68 69  4.576  0.258
1 1 1 70 71  3.099  0.382
1 1 1 72 74  3.491  0.165
1 1 1 75 75  1.068  0.282
1 1 1 76 77  1.071  0.283
1 1 1 78 79  1.074  0.284
1 1 1 80 80  0.371  0.211
1 1 1 81 81  0.464  0.120  0.005  14.63
1 1 1 82 82  0.460  0.119  0.006  14.63
1 1 1 83 83  0.336  0.064
1 1 1 84 84  0.346  0.061
1 1 1 85 85  0.350  0.057
1 1 1 86 86  0.358  0.046
1 1 1 87 87  0.360  0.045
1 1 1 88 88  0.228  0.036
1 1 1 89 89  0.231  0.037
1 1 1 90 90  0.228  0.036
1 1 1 91 91  0.224  0.035
1 1 1 92 92  0.226  0.035
1 1 1 93 93  0.224  0.035
1 1 1 94 94  0.197  0.031
1 1 1 95 95  0.169  0.028
1 1 1 96 00  0.156  0.026  0.024   9.05
1 1 1 01 50  0.064  0.014  0.016  14.64
1 2 1 65 67  7.488  0.186                     LDGT1
1 2 1 68 69  4.576  0.258
1 2 1 70 71  3.099  0.382
1 2 1 72 74  3.470  0.176
1 2 1 75 75  1.802  0.270
1 2 1 76 76  1.813  0.272
1 2 1 77 78  1.807  0.271
1 2 1 79 80  0.876  0.282
1 2 1 81 81  1.406  0.086
1 2 1 82 82  1.406  0.086
1 2 1 83 83  1.423  0.087
1 2 1 84 84  0.495  0.061
1 2 1 85 85  0.485  0.061
1 2 1 86 86  0.456  0.062
1 2 1 87 87  0.446  0.066
1 2 1 88 88  0.334  0.049
1 2 1 89 89  0.333  0.047
1 2 1 90 90  0.319  0.045
```

```
1 2 1 91 91  0.293  0.044
1 2 1 92 92  0.313  0.042
1 2 1 93 93  0.312  0.042
1 2 1 94 94  0.264  0.037
1 2 1 95 95  0.216  0.033
1 2 1 96 00  0.192  0.031  0.027  11.84
1 2 1 01 50  0.073  0.015  0.017  17.20
1 3 1 65 69  9.885  0.186                    LDGT2
1 3 1 70 73  6.486  0.258
1 3 1 74 78  6.486  0.176
1 3 1 79 80  0.887  0.286
1 3 1 81 81  1.404  0.086
1 3 1 82 82  1.404  0.086
1 3 1 83 83  1.427  0.088
1 3 1 84 84  0.501  0.061
1 3 1 85 85  0.502  0.063
1 3 1 86 86  0.487  0.067
1 3 1 87 87  0.470  0.069
1 3 1 88 88  0.349  0.051
1 3 1 89 89  0.344  0.048
1 3 1 90 90  0.336  0.048
1 3 1 91 91  0.293  0.044
1 3 1 92 95  0.313  0.042
1 3 1 96 96  0.264  0.038
1 3 1 97 00  0.216  0.034  0.029  13.93
1 3 1 01 50  0.214  0.034  0.028  13.93
1 4 1 80 80  4.285  0.203                    HDGV
1 4 1 81 83  4.289  0.201
1 4 1 84 84  4.366  0.205
1 4 1 85 85  3.148  0.065
1 4 1 86 86  2.791  0.065
1 4 1 87 87  1.347  0.126
1 4 1 88 89  1.194  0.036
1 4 1 90 90  0.879  0.042
1 4 1 91 97  0.851  0.039
1 4 1 98 50  0.863  0.039
1 5 1 65 74  1.406  0.089                    LDDV
1 5 1 75 79  0.454  0.078
1 5 1 80 93  0.310  0.033
1 5 1 94 94  0.261  0.028
1 5 1 95 95  0.213  0.023
1 5 1 96 96  0.189  0.020
1 5 1 97 97  0.189  0.020
1 5 1 98 98  0.189  0.020
1 5 1 99 99  0.189  0.020
1 5 1 00 00  0.189  0.020
1 5 1 01 50  0.057  0.006
1 6 1 65 80  0.916  0.089                    LDDT
1 6 1 81 95  0.458  0.044
1 6 1 96 96  0.369  0.036
1 6 1 97 97  0.281  0.027
1 6 1 98 98  0.281  0.027
1 6 1 99 99  0.281  0.027
1 6 1 00 00  0.281  0.027
1 6 1 01 50  0.281  0.027
1 7 1 88 88  0.879  0.000                    HDDV
1 7 1 89 89  0.886  0.000
1 7 1 90 90  0.746  0.000
1 7 1 91 91  0.652  0.000
1 7 1 92 92  0.653  0.000
1 7 1 93 93  0.632  0.000
1 7 1 94 94  0.362  0.000
1 7 1 95 95  0.359  0.000
```

```
1 7 1 96 50  0.357  0.000
85 23 75 80 00 00 093 222 2221 2111                    I/M CHARACTERISTICS RECORD
(IMFLAG=2)
85 23 75 20 00 00 093 222 1112 2111                    I/M CHARACTERISTICS RECORD
(IMFLAG=2)
0.85 0.85 0.00 0.70 0.00                                Alt Effectiveness
85 75 20 2222 22 093. 22112221                         ATP CHARACTERISTICS RECORD
(ATPFLG=2)
TX EVP FRACTIONS : Fb99wb.evp
TX EXH EMISSIONS : Fb99wb_b.exh
OFFCYCLE FACTORS : no_off.off
1 99 25.0  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 25.1  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 27.8  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 30.1  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 32.0  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 33.8  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 36.0  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 37.8  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 46.4  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 49.1  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 49.9  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 55.0  20. 20.6 27.3 20.6  1                        1ST REQUIRED SCENARIO
RECORD
1999           C 10.  30.  9.0  9.0 20 1 1 1           LAP CHARACTERISTICS RECORD
(LOCFLG=1)
```

Attachment B-3

Winter MOBTOX5b Input File for Juneau

MOBTOX5b Input File
Juneau – Winter Non-I/M


```
1     PROMPT - vertical flag input, no prompting
Juneau   - 1999 MOBTOX5b - Winter No IM
1     TAMFLG - default tampering rates
1     SPDFLG - one speed per scenario for all IV
1     VMFLAG - Use MOBILE5 VMT mix
3     MYMRFG - Input registration distributions by age
2     NEWFLG - user-input exhaust emission rates
1     IMFLAG - I/M program (see I/M characteristics record below)
1     ALHFLG - no additional correction factor inputs
1     ATPFLG - anti-tampering program (see ATP characteristics record below)
5     RLFLAG - zero out refueling emissions
1     LOCFLG - read local area parameters as 2nd req'd scenario record (i.e.,
for ea. scenario)
2     TEMFLG - user inputs specific ambient temperature
3     OUTFMT - MOBILE4 112 column numerical output format
1     PRTFLG - print exhaust TOG emission factors only
1     IDLFLG - do not print idle emissions results
7 1   NMHFLG - print NMHC
2     HCFLAG - print HC components
 .035 .058 .054 .051 .045 .062 .060 .059 .058 .067          LDGV Reg Dist
 .068 .064 .052 .046 .043 .041 .036 .021 .014 .009
 .007 .008 .006 .004 .034
 .023 .049 .048 .056 .049 .065 .059 .049 .048 .052          LDGT1 Reg Dist
 .060 .057 .040 .033 .040 .042 .042 .032 .026 .020
 .015 .018 .014 .011 .054
 .024 .048 .036 .051 .046 .055 .075 .052 .045 .049          LDGT2 Reg Dist
 .062 .051 .034 .031 .044 .054 .042 .039 .020 .030
 .016 .019 .018 .013 .044
 .076 .097 .049 .090 .063 .090 .069 .021 .028 .035          HDGV Reg Dist
 .021 .021 .021 .021 .028 .007 .056 .014 .049 .021
 .014 .028 .007 .000 .076
 .035 .058 .054 .051 .045 .062 .060 .059 .058 .067          LDDV Reg Dist
 .068 .064 .052 .046 .043 .041 .036 .021 .014 .009
 .007 .008 .006 .004 .034
 .023 .049 .048 .056 .049 .065 .059 .049 .048 .052          LDDT Reg Dist
 .060 .057 .040 .033 .040 .042 .042 .032 .026 .020
 .015 .018 .014 .011 .054
 .018 .030 .018 .028 .028 .028 .022 .022 .030 .030          HDDV Reg Dist
 .042 .046 .036 .042 .028 .052 .052 .022 .026 .042
 .052 .048 .034 .006 .218
 .044 .087 .055 .047 .054 .054 .038 .040 .034 .020
 .014 .570 .000 .000 .000 .000 .000 .000 .000 .000          MC Reg Dist
 .000 .000 .000 .000 .000
0106         ZM    DR1   DR2 Flex Pt  File: NTR_NO_B.BER
1 1 1 65 67  7.488  0.186                      LDGV
1 1 1 68 69  4.576  0.258
1 1 1 70 71  3.099  0.382
1 1 1 72 74  3.491  0.165
1 1 1 75 75  1.068  0.282
1 1 1 76 77  1.071  0.283
1 1 1 78 79  1.074  0.284
1 1 1 80 80  0.371  0.211
1 1 1 81 81  0.401  0.223  0.005  14.63
1 1 1 82 82  0.400  0.221  0.005  14.63
1 1 1 83 83  0.232  0.116
1 1 1 84 84  0.257  0.110
1 1 1 85 85  0.278  0.102
1 1 1 86 86  0.334  0.082
1 1 1 87 87  0.338  0.080
```

```
1 1 1 88 88  0.223  0.057
1 1 1 89 89  0.222  0.058
1 1 1 90 90  0.219  0.056
1 1 1 91 91  0.216  0.055
1 1 1 92 92  0.214  0.055
1 1 1 93 93  0.213  0.055
1 1 1 94 94  0.190  0.042
1 1 1 95 95  0.167  0.028
1 1 1 96 00  0.156  0.022  0.047  3.13
1 1 1 01 50  0.064  0.010  0.038  3.72
1 2 1 65 67  7.488  0.186                    LDGT1
1 2 1 68 69  4.576  0.258
1 2 1 70 71  3.099  0.382
1 2 1 72 74  3.470  0.176
1 2 1 75 75  1.802  0.270
1 2 1 76 76  1.813  0.272
1 2 1 77 78  1.807  0.271
1 2 1 79 80  0.876  0.282
1 2 1 81 81  1.319  0.183
1 2 1 82 82  1.319  0.183
1 2 1 83 83  1.335  0.185
1 2 1 84 84  0.446  0.109
1 2 1 85 85  0.434  0.109
1 2 1 86 86  0.401  0.111
1 2 1 87 87  0.384  0.117
1 2 1 88 88  0.331  0.077
1 2 1 89 89  0.331  0.073
1 2 1 90 90  0.320  0.071
1 2 1 91 91  0.296  0.068
1 2 1 92 92  0.314  0.066
1 2 1 93 93  0.313  0.065
1 2 1 94 94  0.264  0.052
1 2 1 95 95  0.216  0.040
1 2 1 96 00  0.192  0.033  0.052  3.38
1 2 1 01 50  0.073  0.018  0.040  4.59
1 3 1 65 69  9.885  0.186                    LDGT2
1 3 1 70 73  6.486  0.258
1 3 1 74 78  6.486  0.176
1 3 1 79 80  0.887  0.286
1 3 1 81 81  1.317  0.182
1 3 1 82 82  1.317  0.182
1 3 1 83 83  1.339  0.186
1 3 1 84 84  0.452  0.110
1 3 1 85 85  0.450  0.113
1 3 1 86 86  0.428  0.119
1 3 1 87 87  0.405  0.123
1 3 1 88 88  0.346  0.080
1 3 1 89 89  0.342  0.076
1 3 1 90 90  0.337  0.075
1 3 1 91 91  0.296  0.068
1 3 1 92 92  0.314  0.066
1 3 1 93 93  0.313  0.065
1 3 1 94 94  0.313  0.065
1 3 1 95 95  0.313  0.065
1 3 1 96 96  0.265  0.052
1 3 1 97 00  0.216  0.040  0.055  3.38
1 3 1 01 50  0.214  0.039  0.054  3.38
1 4 1 80 80  4.285  0.203                    HDGV
1 4 1 81 83  4.289  0.201
1 4 1 84 84  4.366  0.205
1 4 1 85 85  3.148  0.065
1 4 1 86 86  2.791  0.065
1 4 1 87 87  1.347  0.126
```

```
1 4 1 88 89  1.194  0.036
1 4 1 90 90  0.879  0.042
1 4 1 91 97  0.851  0.039
1 4 1 98 50  0.863  0.039
1 5 1 65 74  1.406  0.089                              LDDV
1 5 1 75 79  0.454  0.078
1 5 1 80 93  0.310  0.033
1 5 1 94 94  0.261  0.028
1 5 1 95 95  0.213  0.023
1 5 1 96 96  0.189  0.020
1 5 1 97 97  0.189  0.020
1 5 1 98 98  0.189  0.020
1 5 1 99 99  0.189  0.020
1 5 1 00 00  0.189  0.020
1 5 1 01 50  0.057  0.006
1 6 1 65 80  0.916  0.089                              LDDT
1 6 1 81 95  0.458  0.044
1 6 1 96 96  0.369  0.036
1 6 1 97 50  0.281  0.027
1 7 1 88 88  0.879  0.000                              HDDV
1 7 1 89 89  0.886  0.000
1 7 1 90 90  0.746  0.000
1 7 1 91 91  0.652  0.000
1 7 1 92 92  0.653  0.000
1 7 1 93 93  0.632  0.000
1 7 1 94 94  0.362  0.000
1 7 1 95 95  0.359  0.000
1 7 1 96 50  0.357  0.000
TX EVP FRACTIONS : SE99wb.evp
TX EXH EMISSIONS : SE99wb_b.exh
OFFCYCLE FACTORS : ntrno96b.off
1 99 20.1 26.7 20.6 27.3 20.6  1                     1ST REQUIRED SCENARIO
RECORD
1999           C 21.0 31.7 13.7 13.7 20 1 1 1     LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 35.5 26.7 20.6 27.3 20.6  1                     1ST REQUIRED SCENARIO
RECORD
1999           C 21.0 31.7 13.7 13.7 20 1 1 1     LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 39.0 26.7 20.6 27.3 20.6  1                     1ST REQUIRED SCENARIO
RECORD
1999           C 21.0 31.7 13.7 13.7 20 1 1 1     LAP CHARACTERISTICS RECORD
(LOCFLG=1)
1 99 51.0 26.7 20.6 27.3 20.6  1                     1ST REQUIRED SCENARIO
RECORD
1999           C 21.0 31.7 13.7 13.7 20 1 1 1     LAP CHARACTERISTICS RECORD
(LOCFLG=1)
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Attachment B-4

Detailed 1999 Emission Results for
On-Road Mobile Sources

Vehicle classes used in the following tables are consistent with standard EPA classification. The classes are defined as:

- Light-duty gasoline vehicles (LDGV)
- Light-duty gasoline trucks (LDGT1), less than 6,000 lbs gross vehicle weight (GVW)
- Light-duty gasoline trucks (LDGT2), 6,000 – 8,500 lbs GVW
- Heavy-duty gasoline vehicles (HDGV), 8,500+ lbs GVW
- Light-duty Diesel vehicles (LDDV)
- Light-duty Diesel trucks (LDDT), less than 8,5000 lbs GVW
- Heavy-duty Diesel Vehicles (HDDV), 8,500 lbs GVW
- Motorcycles (MC).

On-Road Mobile Source Emissions

Anchorage - Summer

		lbs. per Day							
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	9.541296	4.716728	1.573876	0.229352	0.254633	1.362127	2.44805	0
Dioxins/Furans	15	2.83E-09	7.93E-10	2.12E-10	2.49E-11	4.61E-08	1.73E-07	1.9E-07	0
Acetaldehyde	35	9.896597	5.297502	1.588804	0.253731	0.348092	1.861432	11.55781	0
Acrolein	39	1.925457	0.838533	0.237588	0.204284	0.096504	0.517835	1.333533	0
Arsenic Compounds	46	0	0	0	0	0.000218	0.001078	6.59E-05	0
Benzene	48	490.5377	169.1238	48.84856	5.117222	0.566199	3.026657	4.213522	0
Chromium Compounds	75	0.024137	0.00677	0.001808	0.000191	0.000218	0.001078	0.000603	0
Ethylbenzene	99	89.99534	31.20844	8.866169	1.125383	0.055145	0.295906	0.762019	0
Formaldehyde	109	26.50008	14.18336	4.41183	1.108352	1.092816	5.842005	31.38444	0
n-Hexane	118	152.597	42.19154	12.02632	1.670916	0.15165	0.813741	2.095552	0
Lead Compounds	124	0.042401	0.015196	0.004057	0.000781	0	0	0	0
Manganese Compound	127	0.008094	0.00227	0.000606	0.000381	0.000327	0.001617	0.000376	0
Mercury Compounds	128	0	0	0	3.18E-05	0.000109	0.000539	0	0
Nickel Compounds	146	0.017554	0.004923	0.001315	0.000223	0.000109	0.000539	0.001209	0
POM as 16 PAH	162	0.038722	0.016692	0.004633	0.000531	0.001473	0.007902	0.021299	0
Propionaldehyde	164	1.925457	0.838533	0.237588	0.027857	0.488036	2.618765	2.324157	0
Styrene	172	10.91092	4.751687	1.34633	0	0.057903	0.310701	0.80012	0
Toluene	176	563.4256	202.5456	57.51559	7.204029	0.088233	0.473449	1.21923	0
Xylene	185	312.0689	112.7819	32.02382	4.003346	0.132349	0.710174	1.828845	0
POM as 7 PAH		0.021407	0.009304	0.00251	0.000279	0.000421	0.002259	0.006089	0

Anchorage - Spring

		lbs. per Day							
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	13.56169	6.63761	2.117176	0.25838	0.242863	1.280024	2.353164	0
Dioxins/Furans	15	2.83E-09	7.93E-10	2.12E-10	2.49E-11	4.61E-08	1.73E-07	1.9E-07	0
Acetaldehyde	35	13.95392	7.494939	2.190341	0.292434	0.332036	1.749458	11.10818	0
Acrolein	39	2.764664	1.211323	0.338683	0.240424	0.092256	0.487893	1.282017	0
Arsenic Compounds	46	0	0	0	0	0.000218	0.001078	6.59E-05	0
Benzene	48	473.2474	188.9318	54.57641	4.159609	0.539982	2.844283	4.050319	0
Chromium Compounds	75	0.024137	0.00677	0.001808	0.000191	0.000218	0.001078	0.000603	0
Ethylbenzene	99	72.75345	31.41399	8.877417	0.864715	0.052718	0.278796	0.732581	0

On-Road Mobile Source Emissions

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
Formaldehyde	109	37.40749	19.88429	5.961001	1.253733	1.042095	5.489492	30.16226	0
n-Hexane	118	47.50755	19.40949	5.712939	0.569327	0.144974	0.766689	2.014599	0
Lead Compounds	124	0.042401	0.015196	0.004057	0.000781	0	0	0	0
Manganese Compoun	127	0.008094	0.00227	0.000606	0.000381	0.000327	0.001617	0.000376	0
Mercury Compounds	128	0	0	0	3.18E-05	0.000109	0.000539	0	0
Nickel Compounds	146	0.017554	0.004923	0.001315	0.000223	0.000109	0.000539	0.001209	0
POM as 16 PAH	162	0.055599	0.024113	0.006604	0.000625	0.001408	0.007445	0.020477	0
Propionaldehyde	164	2.764664	1.211323	0.338683	0.032785	0.466552	2.467345	2.234373	0
Styrene	172	15.66643	6.864164	1.919203	0	0.055354	0.292736	0.76921	0
Toluene	176	506.1295	219.277	61.81426	6.012506	0.084348	0.446074	1.17213	0
Xylene	185	284.5516	123.3352	34.75686	3.380063	0.126522	0.669111	1.758195	0
POM as 7 PAH		0.030738	0.01344	0.003577	0.000328	0.000402	0.002128	0.005854	0

Anchorage - Winter

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	16.90561	8.216965	2.730787	0.302165	0.254633	1.362127	2.44805	0
Dioxins/Furans	15	2.83E-09	7.93E-10	2.12E-10	2.49E-11	4.61E-08	1.73E-07	1.9E-07	0
Acetaldehyde	35	50.95519	26.72184	7.053214	0.801629	0.348092	1.861432	11.55781	0
Acrolein	39	3.25049	1.448249	0.404227	0.260039	0.096504	0.517835	1.333533	0
Arsenic Compounds	46	0	0	0	0	0.000218	0.001078	6.59E-05	0
Benzene	48	421.9153	174.1096	49.97759	3.848393	0.566199	3.026657	4.213522	0
Chromium Compounds	75	0.024137	0.00677	0.001808	0.000191	0.000218	0.001078	0.000603	0
Ethylbenzene	99	80.01247	35.58742	9.931681	0.869483	0.055145	0.295906	0.762019	0
Formaldehyde	109	51.96744	30.88465	8.892679	1.62873	1.092816	5.842005	31.38444	0
n-Hexane	118	39.0634	17.21626	4.801432	0.415872	0.15165	0.813741	2.095552	0
Lead Compounds	124	0.042401	0.015196	0.004057	0.000781	0	0	0	0
Manganese Compoun	127	0.008094	0.00227	0.000606	0.000381	0.000327	0.001617	0.000376	0
Mercury Compounds	128	0	0	0	3.18E-05	0.000109	0.000539	0	0
Nickel Compounds	146	0.017554	0.004923	0.001315	0.000223	0.000109	0.000539	0.001209	0
POM as 16 PAH	162	0.065369	0.028829	0.007882	0.000676	0.001473	0.007902	0.021299	0
Propionaldehyde	164	3.25049	1.448249	0.404227	0.03546	0.488036	2.618765	2.324157	0
Styrene	172	18.41944	8.206747	2.29062	0	0.057903	0.310701	0.80012	0
Toluene	176	565.4321	251.5947	70.21684	6.150217	0.088233	0.473449	1.21923	0
Xylene	185	318.5519	141.7507	39.56094	3.465321	0.132349	0.710174	1.828845	0
POM as 7 PAH		0.036139	0.016069	0.00427	0.000355	0.000421	0.002259	0.006089	0

On-Road Mobile Source Emissions

Anchorage - Fall

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	13.02317	6.357706	2.169821	0.27402	0.254633	1.362127	2.44805	0
Dioxins/Furans	15	2.83E-09	7.93E-10	2.12E-10	2.49E-11	4.61E-08	1.73E-07	1.9E-07	0
Acetaldehyde	35	39.43202	20.5469	5.476855	0.71675	0.348092	1.861432	11.55781	0
Acrolein	39	2.50323	1.111423	0.312347	0.232648	0.096504	0.517835	1.333533	0
Arsenic Compounds	46	0	0	0	0	0.000218	0.001078	6.59E-05	0
Benzene	48	326.4972	133.8549	38.67416	3.436438	0.566199	3.026657	4.213522	0
Chromium Compounds	75	0.024137	0.00677	0.001808	0.000191	0.000218	0.001078	0.000603	0
Ethylbenzene	99	61.70459	27.33516	7.680612	0.777256	0.055145	0.295906	0.762019	0
Formaldehyde	109	40.20282	23.90846	6.99782	1.469152	1.092816	5.842005	31.38444	0
n-Hexane	118	30.34536	13.28662	3.729495	0.370122	0.15165	0.813741	2.095552	0
Lead Compounds	124	0.042401	0.015196	0.004057	0.000781	0	0	0	0
Manganese Compounds	127	0.008094	0.00227	0.000606	0.000381	0.000327	0.001617	0.000376	0
Mercury Compounds	128	0	0	0	3.18E-05	0.000109	0.000539	0	0
Nickel Compounds	146	0.017554	0.004923	0.001315	0.000223	0.000109	0.000539	0.001209	0
POM as 16 PAH	162	0.050341	0.022124	0.006091	0.000605	0.001473	0.007902	0.021299	0
Propionaldehyde	164	2.50323	1.111423	0.312347	0.031725	0.488036	2.618765	2.324157	0
Styrene	172	14.18497	6.298062	1.769964	0	0.057903	0.310701	0.80012	0
Toluene	176	435.907	193.2114	54.29091	5.498957	0.088233	0.473449	1.21923	0
Xylene	185	245.5695	108.8539	30.58729	3.098451	0.132349	0.710174	1.828845	0
POM as 7 PAH		0.027831	0.012332	0.003299	0.000318	0.000421	0.002259	0.006089	0

On-Road Mobile Source Emissions

Fairbanks - Summer

		lbs. per Day							
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	3.244996	3.017166	1.056203	0.120809	0.097356	0.728714	1.56358	0
Dioxins/Furans	15	1.16E-09	5.26E-10	1.46E-10	1.24E-11	2.58E-08	1.32E-07	1.49E-07	0
Acetaldehyde	35	3.256308	3.195821	0.994968	0.123409	0.133081	0.996273	7.380993	0
Acrolein	39	0.61671	0.494371	0.145245	0.092632	0.037015	0.278313	0.851683	0
Arsenic Compounds	46	0	0	0	0	0.000122	0.000822	5.16E-05	0
Benzene	48	137.1412	88.1694	26.40083	2.259582	0.216349	1.619441	2.691077	0
Chromium Compounds	75	0.009884	0.004493	0.001251	9.48E-05	0.000122	0.000822	0.000473	0
Ethylbenzene	99	28.35488	18.23064	5.386422	0.542536	0.021151	0.159036	0.486676	0
Formaldehyde	109	8.898132	8.831832	2.858351	0.57669	0.417417	3.126319	20.04085	0
n-Hexane	118	47.44745	24.3617	7.249509	0.855633	0.058166	0.437349	1.338359	0
Lead Compounds	124	0.017363	0.010085	0.002808	0.000388	0	0	0	0
Manganese Compound	127	0.003315	0.001507	0.000419	0.00019	0.000183	0.001233	0.000295	0
Mercury Compounds	128	0	0	0	1.58E-05	6.09E-05	0.000411	0	0
Nickel Compounds	146	0.007188	0.003267	0.00091	0.000111	6.09E-05	0.000411	0.000947	0
POM as 16 PAH	162	0.012402	0.009841	0.002832	0.000241	0.000565	0.004247	0.013603	0
Propionaldehyde	164	0.61671	0.494371	0.145245	0.012632	0.187189	1.407469	1.484362	0
Styrene	172	3.494691	2.801437	0.823054	0	0.022209	0.166988	0.51101	0
Toluene	176	177.9404	118.5087	34.98009	3.43954	0.033842	0.254458	0.778682	0
Xylene	185	98.59232	66.00354	19.47944	1.90866	0.050763	0.381687	1.168023	0
POM as 7 PAH		0.006857	0.005485	0.001534	0.000126	0.000161	0.001214	0.003889	0

Fairbanks - Spring

		lbs. per Day							
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	5.243659	4.915113	1.609518	0.147775	0.097356	0.728714	1.56358	0
Dioxins/Furans	15	1.16E-09	5.26E-10	1.46E-10	1.24E-11	2.58E-08	1.32E-07	1.49E-07	0
Acetaldehyde	35	5.252044	5.246694	1.565697	0.152901	0.133081	0.996273	7.380993	0
Acrolein	39	1.008841	0.824337	0.235318	0.116265	0.037015	0.278313	0.851683	0
Arsenic Compounds	46	0	0	0	0	0.000122	0.000822	5.16E-05	0
Benzene	48	144.0856	109.6321	32.22955	1.764254	0.216349	1.619441	2.691077	0
Chromium Compounds	75	0.009884	0.004493	0.001251	9.48E-05	0.000122	0.000822	0.000473	0
Ethylbenzene	99	24.87035	20.26614	5.784738	0.388429	0.021151	0.159036	0.486676	0

On-Road Mobile Source Emissions

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
Formaldehyde	109	14.34721	14.41028	4.405678	0.706659	0.417417	3.126319	20.04085	0
n-Hexane	118	12.23705	9.829642	2.804504	0.184966	0.058166	0.437349	1.338359	0
Lead Compounds	124	0.017363	0.010085	0.002808	0.000388	0	0	0	0
Manganese Compounc	127	0.003315	0.001507	0.000419	0.00019	0.000183	0.001233	0.000295	0
Mercury Compounds	128	0	0	0	1.58E-05	6.09E-05	0.000411	0	0
Nickel Compounds	146	0.007188	0.003267	0.00091	0.000111	6.09E-05	0.000411	0.000947	0
POM as 16 PAH	162	0.020288	0.01641	0.004589	0.000302	0.000565	0.004247	0.013603	0
Propionaldehyde	164	1.008841	0.824337	0.235318	0.015854	0.187189	1.407469	1.484362	0
Styrene	172	5.716766	4.671241	1.333466	0	0.022209	0.166988	0.51101	0
Toluene	176	175.6904	143.2599	40.89274	2.74807	0.033842	0.254458	0.778682	0
Xylene	185	98.97541	80.71262	23.03903	1.548432	0.050763	0.381687	1.168023	0
POM as 7 PAH		0.011216	0.009146	0.002486	0.000159	0.000161	0.001214	0.003889	0

Fairbanks - Winter

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	6.955195	6.753338	2.144414	0.163714	0.10269	0.780176	1.614344	0
Dioxins/Furans	15	1.16E-09	5.26E-10	1.46E-10	1.24E-11	2.58E-08	1.32E-07	1.49E-07	0
Acetaldehyde	35	6.135501	6.074211	1.781499	0.168986	0.140351	1.06621	7.622596	0
Acrolein	39	1.121051	0.952104	0.269227	0.128109	0.039141	0.297974	0.880852	0
Arsenic Compounds	46	0	0	0	0	0.000122	0.000822	5.16E-05	0
Benzene	48	145.5567	113.2002	32.91331	1.833177	0.228309	1.734046	2.778823	0
Chromium Compounds	75	0.009884	0.004493	0.001251	9.48E-05	0.000122	0.000822	0.000473	0
Ethylbenzene	99	27.61949	23.39643	6.61553	0.428203	0.022367	0.170271	0.503344	0
Formaldehyde	109	16.98942	18.34226	5.495439	0.782853	0.44057	3.346525	20.69693	0
n-Hexane	118	13.54616	11.32026	3.20012	0.204429	0.061508	0.468244	1.384196	0
Lead Compounds	124	0.017363	0.010085	0.002808	0.000388	0	0	0	0
Manganese Compounc	127	0.003315	0.001507	0.000419	0.00019	0.000183	0.001233	0.000295	0
Mercury Compounds	128	0	0	0	1.58E-05	6.09E-05	0.000411	0	0
Nickel Compounds	146	0.007188	0.003267	0.00091	0.000111	6.09E-05	0.000411	0.000947	0
POM as 16 PAH	162	0.022545	0.018953	0.00525	0.000333	0.000597	0.004547	0.014069	0
Propionaldehyde	164	1.121051	0.952104	0.269227	0.017469	0.197944	1.506896	1.5352	0
Styrene	172	6.352621	5.395254	1.525622	0	0.023485	0.178784	0.528511	0
Toluene	176	195.1401	165.4062	46.77045	3.029116	0.035786	0.272433	0.805351	0
Xylene	185	109.9346	93.19119	26.3509	1.706765	0.05368	0.40865	1.208026	0
POM as 7 PAH		0.012464	0.010564	0.002844	0.000175	0.000171	0.0013	0.004022	0

On-Road Mobile Source Emissions

Fairbanks - Fall

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	5.373369	5.209527	1.706549	0.143721	0.091987	0.677536	1.512033	0
Dioxins/Furans	15	1.16E-09	5.26E-10	1.46E-10	1.24E-11	2.58E-08	1.32E-07	1.49E-07	0
Acetaldehyde	35	4.801668	4.684751	1.403262	0.149956	0.125692	0.926048	7.139077	0
Acrolein	39	0.902141	0.760755	0.218409	0.114878	0.035159	0.258763	0.823568	0
Arsenic Compounds	46	0	0	0	0	0.000122	0.000822	5.16E-05	0
Benzene	48	115.7292	90.23195	26.66597	1.644367	0.204208	1.505829	2.602586	0
Chromium Compounds	75	0.009884	0.004493	0.001251	9.48E-05	0.000122	0.000822	0.000473	0
Ethylbenzene	99	22.25621	18.70839	5.370481	0.383969	0.020091	0.147864	0.47061	0
Formaldehyde	109	13.17538	13.99349	4.298748	0.688328	0.394249	2.906026	19.3848	0
n-Hexane	118	10.99222	9.087859	2.607239	0.183279	0.055249	0.406627	1.294178	0
Lead Compounds	124	0.017363	0.010085	0.002808	0.000388	0	0	0	0
Manganese Compound	127	0.003315	0.001507	0.000419	0.00019	0.000183	0.001233	0.000295	0
Mercury Compounds	128	0	0	0	1.58E-05	6.09E-05	0.000411	0	0
Nickel Compounds	146	0.007188	0.003267	0.00091	0.000111	6.09E-05	0.000411	0.000947	0
POM as 16 PAH	162	0.018143	0.015144	0.004259	0.000299	0.000536	0.003948	0.013154	0
Propionaldehyde	164	0.902141	0.760755	0.218409	0.015665	0.177802	1.3086	1.435361	0
Styrene	172	5.112135	4.310947	1.237651	0	0.021095	0.155258	0.494141	0
Toluene	176	157.1958	132.2391	37.96194	2.716222	0.032145	0.236583	0.752976	0
Xylene	185	88.55442	74.50283	21.38764	1.530465	0.048217	0.354875	1.129464	0
POM as 7 PAH		0.01003	0.008441	0.002307	0.000157	0.000153	0.001129	0.00376	0

On-Road Mobile Source Emissions

Juneau - Summer

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	2.709372	1.260883	0.986037	0.364853	0.010277	0.007307	0.659626	0.115494
Dioxins/Furans	15	4.42E-10	1.31E-10	6.4E-11	2.91E-11	1.97E-09	9.87E-10	5.33E-08	3.55E-12
Acetaldehyde	35	2.25268	1.165737	0.835989	0.378503	0.014041	0.009991	3.113331	0.075344
Acrolein	39	0.357073	0.17144	0.113015	0.285711	0.003906	0.002782	0.359422	0.007533
Arsenic Compounds	46	0	0	0	0	9.32E-06	6.15E-06	1.85E-05	0
Benzene	48	35.33252	15.61288	10.21573	3.372609	0.022852	0.016242	1.135116	0.604152
Chromium Compounds	75	0.003775	0.001123	0.000546	0.000223	9.32E-06	6.15E-06	0.000169	0
Ethylbenzene	99	10.40977	4.827613	3.153673	1.166288	0.002232	0.00159	0.205384	0
Formaldehyde	109	6.108008	3.455438	2.605695	1.745734	0.044095	0.031349	8.45359	0.281221
n-Hexane	118	9.215049	3.90655	2.487925	1.098051	0.006138	0.004372	0.564806	0
Lead Compounds	124	0.006631	0.00252	0.001226	0.000914	0	0	0	2.15E-05
Manganese Compounds	127	0.001266	0.000377	0.000183	0.000446	1.4E-05	9.23E-06	0.000105	0
Mercury Compounds	128	0	0	0	3.72E-05	4.66E-06	3.08E-06	0	0
Nickel Compounds	146	0.002745	0.000817	0.000397	0.00026	4.66E-06	3.08E-06	0.000339	0
POM as 16 PAH	162	0.007181	0.003413	0.002204	0.000742	5.96E-05	4.25E-05	0.005741	0.000144
Propionaldehyde	164	0.357073	0.17144	0.113015	0.038961	0.019754	0.014071	0.626421	0
Styrene	172	2.023412	0.971495	0.640418	0	0.002344	0.001669	0.215653	0
Toluene	176	70.80422	33.08107	21.65322	7.888938	0.003571	0.002544	0.328614	0
Xylene	185	39.68594	18.5608	12.15223	4.418411	0.005357	0.003816	0.492922	0
POM as 7 PAH		0.00397	0.001902	0.001194	0.00039	1.7E-05	1.21E-05	0.001641	7.42E-05

Juneau - Spring

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	3.430766	1.594686	1.203667	0.399381	0.010277	0.007307	0.659626	0.130352
Dioxins/Furans	15	4.42E-10	1.31E-10	6.4E-11	2.91E-11	1.97E-09	9.87E-10	5.33E-08	3.55E-12
Acetaldehyde	35	2.847801	1.475511	1.029637	0.417133	0.014041	0.009991	3.113331	0.08502
Acrolein	39	0.452061	0.218761	0.140878	0.317514	0.003906	0.002782	0.359422	0.008504
Arsenic Compounds	46	0	0	0	0	9.32E-06	6.15E-06	1.85E-05	0
Benzene	48	42.40972	19.08539	12.3515	3.518509	0.022852	0.016242	1.135116	0.613112
Chromium Compounds	75	0.003775	0.001123	0.000546	0.000223	9.32E-06	6.15E-06	0.000169	0
Ethylbenzene	99	11.90851	5.726056	3.704801	1.174411	0.002232	0.00159	0.205384	0

On-Road Mobile Source Emissions

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
Formaldehyde	109	7.708015	4.363539	3.185735	1.913115	0.044095	0.031349	8.45359	0.317405
n-Hexane	118	7.805532	3.665722	2.41329	0.85044	0.006138	0.004372	0.564806	0
Lead Compounds	124	0.006631	0.00252	0.001226	0.000914	0	0	0	2.15E-05
Manganese Compounds	127	0.001266	0.000377	0.000183	0.000446	1.4E-05	9.23E-06	0.000105	0
Mercury Compounds	128	0	0	0	3.72E-05	4.66E-06	3.08E-06	0	0
Nickel Compounds	146	0.002745	0.000817	0.000397	0.00026	4.66E-06	3.08E-06	0.000339	0
POM as 16 PAH	162	0.009091	0.004355	0.002747	0.000825	5.96E-05	4.25E-05	0.005741	0.000162
Propionaldehyde	164	0.452061	0.218761	0.140878	0.043297	0.019754	0.014071	0.626421	0
Styrene	172	2.56168	1.239646	0.798311	0	0.002344	0.001669	0.215653	0
Toluene	176	82.82523	39.88387	25.77743	8.114322	0.003571	0.002544	0.328614	0
Xylene	185	46.56379	22.42682	14.49265	4.55778	0.005357	0.003816	0.492922	0
POM as 7 PAH		0.005026	0.002427	0.001488	0.000434	1.7E-05	1.21E-05	0.001641	8.38E-05

Juneau - Winter

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	5.395436	2.373347	1.709703	0.457978	0.010535	0.007593	0.672822	0.153894
Dioxins/Furans	15	4.43E-10	1.31E-10	6.4E-11	2.91E-11	1.97E-09	9.87E-10	5.23E-08	3.55E-12
Acetaldehyde	35	4.114701	2.109553	1.42708	0.478146	0.014398	0.010375	3.176571	0.100354
Acrolein	39	0.689563	0.321559	0.200479	0.36382	0.004008	0.002884	0.366578	0.010031
Arsenic Compounds	46	0	0	0	0	9.32E-06	6.15E-06	1.81E-05	0
Benzene	48	61.29821	26.40255	16.41886	3.675992	0.023424	0.01687	1.158155	0.687051
Chromium Compounds	75	0.003781	0.001117	0.000546	0.000223	9.32E-06	6.15E-06	0.000166	0
Ethylbenzene	99	16.95312	7.90668	4.925674	1.220899	0.00229	0.001648	0.209473	0
Formaldehyde	109	10.85448	6.156838	4.358449	2.193782	0.045199	0.032561	8.624576	0.374657
n-Hexane	118	8.223641	3.838066	2.381256	0.59524	0.006298	0.004532	0.57605	0
Lead Compounds	124	0.006642	0.002507	0.001226	0.000914	0	0	0	2.15E-05
Manganese Compounds	127	0.001268	0.000374	0.000183	0.000446	1.4E-05	9.23E-06	0.000104	0
Mercury Compounds	128	0	0	0	3.72E-05	4.66E-06	3.08E-06	0	0
Nickel Compounds	146	0.00275	0.000812	0.000397	0.00026	4.66E-06	3.08E-06	0.000332	0
POM as 16 PAH	162	0.013867	0.006401	0.003909	0.000945	6.12E-05	4.4E-05	0.005855	0.000191
Propionaldehyde	164	0.689563	0.321559	0.200479	0.049612	0.020267	0.014585	0.638892	0
Styrene	172	3.907525	1.822169	1.13605	0	0.002405	0.00173	0.219947	0
Toluene	176	119.8398	55.88968	34.82447	8.6284	0.003664	0.002637	0.335157	0
Xylene	185	67.51768	31.4881	19.62049	4.86109	0.005496	0.003955	0.502735	0
POM as 7 PAH		0.007667	0.003568	0.002118	0.000497	1.75E-05	1.26E-05	0.001674	9.88E-05

On-Road Mobile Source Emissions

Juneau - Fall

lbs. per Day

		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC
1,3 Butadiene	9	4.146624	1.839205	1.366736	0.419955	0.010535	0.007593	0.672822	0.133059
Dioxins/Furans	15	4.43E-10	1.31E-10	6.4E-11	2.91E-11	1.97E-09	9.87E-10	5.23E-08	3.55E-12
Acetaldehyde	35	3.178452	1.63564	1.133666	0.435595	0.014398	0.010375	3.176571	0.086758
Acrolein	39	0.529523	0.247847	0.157271	0.328974	0.004008	0.002884	0.366578	0.008687
Arsenic Compounds	46	0	0	0	0	9.32E-06	6.15E-06	1.81E-05	0
Benzene	48	48.9112	20.98137	13.28811	3.537212	0.023424	0.01687	1.158155	0.643321
Chromium Compounds	75	0.003781	0.001117	0.000546	0.000223	9.32E-06	6.15E-06	0.000166	0
Ethylbenzene	99	14.06628	6.488807	4.143602	1.234245	0.00229	0.001648	0.209473	0
Formaldehyde	109	8.417013	4.787897	3.487827	2.009539	0.045199	0.032561	8.624576	0.323948
n-Hexane	118	9.499256	4.157412	2.717532	0.934155	0.006298	0.004532	0.57605	0
Lead Compounds	124	0.006642	0.002507	0.001226	0.000914	0	0	0	2.15E-05
Manganese Compounds	127	0.001268	0.000374	0.000183	0.000446	1.4E-05	9.23E-06	0.000104	0
Mercury Compounds	128	0	0	0	3.72E-05	4.66E-06	3.08E-06	0	0
Nickel Compounds	146	0.00275	0.000812	0.000397	0.00026	4.66E-06	3.08E-06	0.000332	0
POM as 16 PAH	162	0.010649	0.004934	0.003067	0.000855	6.12E-05	4.4E-05	0.005855	0.000166
Propionaldehyde	164	0.529523	0.247847	0.157271	0.04486	0.020267	0.014585	0.638892	0
Styrene	172	3.000629	1.404469	0.891202	0	0.002405	0.00173	0.219947	0
Toluene	176	97.64624	45.19442	28.81824	8.500767	0.003664	0.002637	0.335157	0
Xylene	185	54.88208	25.41279	16.20134	4.77281	0.005496	0.003955	0.502735	0
POM as 7 PAH		0.005887	0.00275	0.001661	0.000449	1.75E-05	1.26E-05	0.001674	8.56E-05

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
1	79345	1,1,2,2-Tetrachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	79005	1,1,2-Trichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	57147	1,1-Dimethyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	120821	1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	96128	1,2-Dibromo-3-chloropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	122667	1,2-Diphenylhydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	106887	1,2-Epoxybutane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	75558	1,2-Propylenimine (2-Methyl aziridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	106990	1,3-Butadiene	2.420	1.183	0.392	0.049	0.046	0.245	0.442	0.000	4.776
10	542756	1,3-Dichloropropene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	1120714	1,3-Propane sultone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	106467	1,4-Dichlorobenzene(p)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	540841	2,24-Trimethylpentane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	95954	2,4,5-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	88062	2,4,6-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	94757	2,4-D, salts and esters	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	51285	2,4-Dinitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	121142	2,4-Dinitrotoluene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	584849	2,4-Tolluene diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	95807	2,4-Toluene diamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	53963	2-Acetylaminofluorene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	532274	2-Chloroacetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	79469	2-Nitropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	91941	3,3-Dichlorobenzidene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	119904	3,3-Dimethoxybenzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	119937	3,3-Dimethyl benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	101144	4,4-Methylene bis (2-chloroaniline)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	101779	4,4'-Methylenedianiline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	534521	4,6-Dinitro-o-cresol, and salts	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32	92671	4-Aminobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33	92933	4-Nitrobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	100027	4-Nitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	75070	Acetaldehyde	5.212	2.740	0.744	0.094	0.063	0.335	2.089	0.000	11.277
36	60355	Acetamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	75058	Acetonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	98862	Acetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	107028	Acrolein	0.477	0.210	0.059	0.043	0.017	0.093	0.241	0.000	1.140
40	79061	Acrylamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	79107	Acrylic Acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
42	107131	Acrylonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43	107051	Allyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44	62533	Aniline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45	N/A	Antimony Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46	N/A	Arsenic Compounds (inorganic includir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47	1332214	Asbestos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48	71432	Benzene (including benzene from gaso	78.119	30.387	8.764	0.756	0.102	0.544	0.762	0.000	119.433
49	92875	Benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	98077	Benzotricholoride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51	100447	Benzyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	N/A	Beryllium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
53	57578	beta-Propiolactone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54	92524	Biphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56	542881	Bis(chloromethyl)ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57	75252	Bromoform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58	N/A	Cadmium Compouns	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59	156627	Calcium cyanamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60	133062	Captan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
61	63252	Carbaryl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62	75150	Carbon disulfide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
63	56235	Carbon tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64	463581	Carbonyl sufide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	120809	Catechol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
66	133904	Chloramben	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67	57749	Chlordane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
68	7782505	Chlorine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
69	79118	Chloroacetic acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	108907	Chlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
71	510156	Chlorobenzilate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72	67663	Chloroform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73	107302	Chloromethyl methyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74	126998	Chloroprene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	N/A	Chromium Chompounds	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.006
76	N/A	Cobalt Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77	N/A	Coke Oven Emissions	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78	1319773	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
79	95487	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	108394	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
81	106445	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82	98828	Cumene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
83	N/A	Cyanide Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
84	3547044	DDE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	334883	Diazomethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86	132649	Dibenzofurans	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87	84742	Dibutylphthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]e	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
89	62737	Dichlorvos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	111422	Diethanolamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91	64675	Diethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92	60117	Dimethyl aminoazobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93	79447	Dimethyl caramoyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	68122	Dimethyl formamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	131113	Dimethyl phthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	77781	Dimethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypro	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	140885	Ethyl acrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	100414	Ethyl benzene	13.891	5.728	1.613	0.166	0.010	0.053	0.138	0.000	21.599
100	51796	Ethyl carbamate (Urethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	75003	Ethyl chloride (Chloroethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	1006934	Ethylene dibromide (Dibromoethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	107062	Ethylene dichloride (1,2-Dichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	107211	Ethylene glycol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	151564	Ethylene imine (Axiridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
106	75218	Ethylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107	96457	Ethylene thiourea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108	75343	Ethylidene dichloride (1,1-Dichloroetha	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109	5000	Formaldehyde	7.121	4.054	1.198	0.249	0.197	1.050	5.672	0.000	19.542
110	N/A	Glycol ethers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111	76448	Heptachlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112	118741	Hexachlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
113	87683	Hexachlorobutadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
114	77474	Hexachlorocyclopentadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	67721	Hexachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
116	822060	Hexamethylene-1,6 diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117	680319	Hexamethylphosphoramide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
118	110543	Hexane	12.297	4.202	1.199	0.138	0.027	0.146	0.379	0.000	18.388
119	302012	Hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	7647010	Hydrochloric acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122	123319	Hydroquinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
123	78591	Isophorone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
124	N/A	Lead Compounds	0.008	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.011
125	58899	Lindane (all isomers)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
126	108316	Maleic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127	N/A	Manganese Compounds	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
128	N/A	Mercury Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
129	67561	Methanol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	72435	Methoxychlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
131	74839	Methyl bromide(Bromomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132	71556	Methyl chloroform (1,1,1-Trichloroethar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	78933	Methyl ethyl ketone (2-Butanone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
134	60344	Methyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	74884	Methyl iodide (Iodomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
136	108101	Methyl isobutyl ketone (Hexone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137	624839	Methyl isocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
138	80626	Methyl methacrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
139	1634044	Methyl tert butyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	74873	Methylchloride (Chloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
141	75092	Methylene chloride(Dichloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142	101688	Methylene diphenyl diisocyante (MDI)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
143	N/A	Mineral fibers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	121697	N,N-Diethyl anniline (N,N-Dimethylanir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	91203	Naphthalene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
146	N/A	Nickel Compounds	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.005
147	98953	Nitrobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	62759	N-Nitrosodimethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
149	59892	N-Nitrosomorpholine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	684935	N-Nitroso-N-methylurea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
151	90040	o-Anisidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152	95534	o-Toluidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
153	56382	Parathion	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
154	82688	Pentachloromitrobenzene (Quintobenz	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	87865	Pentachlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
156	108952	Phenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157	75445	Phosgene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
158	7723140	Phosphorus	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
159	7803512	Phospine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	85449	Phthalic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
161	1336363	Polychlorinated biphenyls (Aroclors)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	N/A	Polycylic Organic Matter	0.010	0.004	0.001	0.000	0.000	0.001	0.004	0.000	0.021
163	106503	p-Phenylemediamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	123386	Propionaldehyde	0.477	0.210	0.059	0.006	0.088	0.471	0.420	0.000	1.731

Annual On-Road Motor Vehicle HAP Emissions (ton/yr) - 1999

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
165	114261	Propoxur(Baygon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
166	78875	Propylene dichloride (1,2-Dichloroprop:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	75569	Propylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	91225	Quinoline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
169	106514	Quinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	N/A	Radionuclides (including radon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
171	N/A	Selenium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172	100425	Styrene	2.700	1.192	0.334	0.000	0.010	0.056	0.145	0.000	4.437
173	96093	Styrene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
174	127184	Tetrachloroethylene (Perchloroethylene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	7550450	Titanium tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
176	108883	Toluene	94.485	39.540	11.125	1.134	0.016	0.085	0.220	0.000	146.606
177	8001352	Toxaphene (chlorinated camphene)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
178	79016	Trichloroethylene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
179	121448	Triethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	1582098	Trifluralin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
181	108054	Vinyl acetate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
182	593602	Vinyl bromide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
183	75014	Vinyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
184	75354	Vinylidene chloride (1,1-Dichloroethyle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
185	1330207	Xylenes (isomers and mixture)	52.959	22.207	6.247	0.636	0.024	0.128	0.331	0.000	82.531
186	95476	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
187	108383	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
188	106423	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Totals:	270.2	111.7	31.7	3.3	0.6	3.2	10.8	0.0	431.5

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
1	79345	1,1,2,2-Tetrachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	79005	1,1,2-Trichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	57147	1,1-Dimethyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	120821	1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	96128	1,2-Dibromo-3-chloropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	122667	1,2-Diphenylhydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	106887	1,2-Epoxybutane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	75558	1,2-Propylenimine (2-Methyl aziridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	106990	1,3-Butadiene	0.950	0.908	0.297	0.026	0.018	0.133	0.285	0.000	2.617
10	542756	1,3-Dichloropropene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	1120714	1,3-Propane sultone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	106467	1,4-Dichlorobenzene(p)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	540841	2,24-Trimethylpentane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	95954	2,4,5-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	88062	2,4,6-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	94757	2,4-D, salts and esters	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	51285	2,4-Dinitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	121142	2,4-Dinitrotoluene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	584849	2,4-Toluene diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	95807	2,4-Toluene diamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	53963	2-Acetylaminofluorene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	532274	2-Chloroacetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	79469	2-Nitropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	91941	3,3-Dichlorobenzidene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	119904	3,3-Dimethoxybenzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	119937	3,3-Dimethyl benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	101144	4,4-Methylene bis (2-chloroaniline)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	101779	4,4'-Methylenedianiline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	534521	4,6-Dinitro-o-cresol, and salts	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32	92671	4-Aminobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33	92933	4-Nitrobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	100027	4-Nitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	75070	Acetaldehyde	0.887	0.876	0.262	0.027	0.024	0.182	1.347	0.000	3.606
36	60355	Acetamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	75058	Acetonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	98862	Acetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	107028	Acrolein	0.166	0.138	0.040	0.021	0.007	0.051	0.155	0.000	0.578
40	79061	Acrylamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	79107	Acrylic Acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
42	107131	Acrylonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43	107051	Allyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44	62533	Aniline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45	N/A	Antimony Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46	N/A	Arsenic Compounds (inorganic includir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47	1332214	Asbestos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48	71432	Benzene (including benzene from gasc	24.752	18.306	5.393	0.342	0.039	0.296	0.491	0.000	49.620
49	92875	Benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	98077	Benzotricholoride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51	100447	Benzyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	N/A	Beryllium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
53	57578	beta-Propiolactone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54	92524	Biphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56	542881	Bis(chloromethyl)ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57	75252	Bromoform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58	N/A	Cadmium Compouns	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59	156627	Calcium cyanamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60	133062	Captan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
61	63252	Carbaryl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62	75150	Carbon disulfide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
63	56235	Carbon tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64	463581	Carbonyl sufide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	120809	Catechol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
66	133904	Chloramben	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67	57749	Chlordane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
68	7782505	Chlorine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
69	79118	Chloroacetic acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	108907	Chlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
71	510156	Chlorobenzilate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72	67663	Chloroform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73	107302	Chloromethyl methyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74	126998	Chloroprene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	N/A	Chromium Chompounds	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.003
76	N/A	Cobalt Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77	N/A	Coke Oven Emissions	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78	1319773	Cresols/Creshlic acid (isomers and mix	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
79	95487	Cresols/Creshlic acid (isomers and mix	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	108394	Cresols/Creshlic acid (isomers and mix	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
81	106445	Cresols/Creshlic acid (isomers and mix	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82	98828	Cumene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
83	N/A	Cyanide Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
84	3547044	DDE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	334883	Diazomethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86	132649	Dibenzofurans	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87	84742	Dibutylphthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]e	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
89	62737	Dichlorvos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	111422	Diethanolamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91	64675	Diethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92	60117	Dimethyl aminoazobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93	79447	Dimethyl caramoyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	68122	Dimethyl formamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	131113	Dimethyl phthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	77781	Dimethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypro	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	140885	Ethyl acrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	100414	Ethyl benzene	4.704	3.677	1.057	0.080	0.004	0.029	0.089	0.000	9.639
100	51796	Ethyl carbamate (Urethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	75003	Ethyl chloride (Chloroethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	1006934	Ethylene dibromide (Dibromoethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	107062	Ethylene dichloride (1,2-Dichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	107211	Ethylene glycol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	151564	Ethylene imine (Axiridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
106	75218	Ethylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107	96457	Ethylene thiourea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108	75343	Ethylidene dichloride (1,1-Dichloroetha	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109	5000	Formaldehyde	2.437	2.536	0.778	0.126	0.076	0.571	3.657	0.000	10.181
110	N/A	Glycol ethers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111	76448	Heptachlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112	118741	Hexachlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
113	87683	Hexachlorobutadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
114	77474	Hexachlorocyclopentadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	67721	Hexachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
116	822060	Hexamethylene-1,6 diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117	680319	Hexamethylphosphoramide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
118	110543	Hexane	3.843	2.491	0.724	0.065	0.011	0.080	0.244	0.000	7.457
119	302012	Hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	7647010	Hydrochloric acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122	123319	Hydroquinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
123	78591	Isophorone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
124	N/A	Lead Compounds	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.006
125	58899	Lindane (all isomers)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
126	108316	Maleic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127	N/A	Manganese Compounds	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
128	N/A	Mercury Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
129	67561	Methanol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	72435	Methoxychlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
131	74839	Methyl bromide(Bromomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132	71556	Methyl chloroform (1,1,1-Trichloroethar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	78933	Methyl ethyl ketone (2-Butanone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
134	60344	Methyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	74884	Methyl iodide (Iodomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
136	108101	Methyl isobutyl ketone (Hexone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137	624839	Methyl isocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
138	80626	Methyl methacrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
139	1634044	Methyl tert butyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	74873	Methylchloride (Chloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
141	75092	Methylene chloride(Dichloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142	101688	Methylene diphenyl diisocyante (MDI)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
143	N/A	Mineral fibers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	121697	N,N-Diethyl anniline (N,N-Dimethylanir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	91203	Naphthalene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
146	N/A	Nickel Compounds	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.002
147	98953	Nitrobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	62759	N-Nitrosodimethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
149	59892	N-Nitrosomorpholine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	684935	N-Nitroso-N-methylurea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
151	90040	o-Anisidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152	95534	o-Toluidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
153	56382	Parathion	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
154	82688	Pentachloromitrobenzene (Quintobenz	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	87865	Pentachlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
156	108952	Phenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157	75445	Phosgene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
158	7723140	Phosphorus	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
159	7803512	Phospine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	85449	Phthalic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
161	1336363	Polychlorinated biphenyls (Aroclors)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	N/A	Polycylic Organic Matter	0.003	0.003	0.001	0.000	0.000	0.001	0.002	0.000	0.010
163	106503	p-Phenylemediamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	123386	Propionaldehyde	0.166	0.138	0.040	0.003	0.034	0.257	0.271	0.000	0.909

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
165	114261	Propoxur(Baygon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
166	78875	Propylene dichloride (1,2-Dichloroprop:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	75569	Propylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	91225	Quinoline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
169	106514	Quinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	N/A	Radionuclides (including radon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
171	N/A	Selenium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172	100425	Styrene	0.943	0.784	0.224	0.000	0.004	0.030	0.093	0.000	2.079
173	96093	Styrene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
174	127184	Tetrachloroethylene (Perchloroethylen(	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	7550450	Titanium tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
176	108883	Toluene	32.210	25.523	7.328	0.544	0.006	0.046	0.142	0.000	65.800
177	8001352	Toxaphene (chlorinated camphene)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
178	79016	Trichloroethylene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
179	121448	Triethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	1582098	Trifluralin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
181	108054	Vinyl acetate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
182	593602	Vinyl bromide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
183	75014	Vinyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
184	75354	Vinylidene chloride (1,1-Dichloroethyle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
185	1330207	Xylenes (isomers and mixture)	18.070	14.345	4.118	0.305	0.009	0.070	0.213	0.000	37.131
186	95476	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
187	108383	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
188	106423	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Totals:	89.1	69.7	20.3	1.5	0.2	1.7	7.0	0.0	189.6

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
1	79345	1,1,2,2-Tetrachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	79005	1,1,2-Trichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	57147	1,1-Dimethyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	120821	1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	96128	1,2-Dibromo-3-chloropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	122667	1,2-Diphenylhydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	106887	1,2-Epoxybutane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	75558	1,2-Propylenimine (2-Methyl aziridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	106990	1,3-Butadiene	0.716	0.322	0.240	0.075	0.002	0.001	0.122	0.024	1.502
10	542756	1,3-Dichloropropene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	1120714	1,3-Propane sultone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	106467	1,4-Dichlorobenzene(p)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	540841	2,24-Trimethylpentane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	95954	2,4,5-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	88062	2,4,6-Trichlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	94757	2,4-D, salts and esters	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	51285	2,4-Dinitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	121142	2,4-Dinitrotoluene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	584849	2,4-Toluene diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	95807	2,4-Toluene diamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	53963	2-Acetylaminofluorene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	532274	2-Chloroacetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	79469	2-Nitropropane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	91941	3,3-Dichlorobenzidene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	119904	3,3-Dimethoxybenzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	119937	3,3-Dimethyl benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	101144	4,4-Methylene bis (2-chloroaniline)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	101779	4,4'-Methylenedianiline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	534521	4,6-Dinitro-o-cresol, and salts	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32	92671	4-Aminobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33	92933	4-Nitrobiphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	100027	4-Nitrophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	75070	Acetaldehyde	0.565	0.291	0.202	0.078	0.003	0.002	0.574	0.016	1.731
36	60355	Acetamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	75058	Acetonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	98862	Acetophenone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	107028	Acrolein	0.093	0.044	0.028	0.059	0.001	0.001	0.066	0.002	0.292
40	79061	Acrylamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	79107	Acrylic Acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annual On-Road Motor Vehicle HAP Emissions (ton/yr) - 1999

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
42	107131	Acrylonitrile	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43	107051	Allyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44	62533	Aniline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45	N/A	Antimony Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46	N/A	Arsenic Compounds (inorganic includir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47	1332214	Asbestos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48	71432	Benzene (including benzene from gaso	8.575	3.745	2.385	0.644	0.004	0.003	0.209	0.116	15.682
49	92875	Benzidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	98077	Benzotricholoride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51	100447	Benzyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	N/A	Beryllium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
53	57578	beta-Propiolactone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54	92524	Biphenyl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56	542881	Bis(chloromethyl)ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57	75252	Bromoform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58	N/A	Cadmium Compouns	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59	156627	Calcium cyanamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60	133062	Captan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
61	63252	Carbaryl	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62	75150	Carbon disulfide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
63	56235	Carbon tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64	463581	Carbonyl sufide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	120809	Catechol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
66	133904	Chloramben	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67	57749	Chlordane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
68	7782505	Chlorine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
69	79118	Chloroacetic acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	108907	Chlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
71	510156	Chlorobenzilate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72	67663	Chloroform	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73	107302	Chloromethyl methyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74	126998	Chloroprene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	N/A	Chromium Chompounds	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
76	N/A	Cobalt Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77	N/A	Coke Oven Emissions	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78	1319773	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
79	95487	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	108394	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
81	106445	Cresols/Creshlic acid (isomers and mi>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82	98828	Cumene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annual On-Road Motor Vehicle HAP Emissions (ton/yr) - 1999

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
83	N/A	Cyanide Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
84	3547044	DDE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	334883	Diazomethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86	132649	Dibenzofurans	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87	84742	Dibutylphthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]e	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
89	62737	Dichlorvos	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	111422	Diethanolamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91	64675	Diethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92	60117	Dimethyl aminoazobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93	79447	Dimethyl caramoyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	68122	Dimethyl formamide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	131113	Dimethyl phthalate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	77781	Dimethyl sulfate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypro	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	140885	Ethyl acrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	100414	Ethyl benzene	2.434	1.138	0.727	0.219	0.000	0.000	0.038	0.000	4.556
100	51796	Ethyl carbamate (Urethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	75003	Ethyl chloride (Chloroethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	1006934	Ethylene dibromide (Dibromoethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	107062	Ethylene dichloride (1,2-Dichloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	107211	Ethylene glycol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	151564	Ethylene imine (Axiridine)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
106	75218	Ethylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107	96457	Ethylene thiourea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108	75343	Ethylidene dichloride (1,1-Dichloroetha	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109	5000	Formaldehyde	1.510	0.856	0.622	0.359	0.008	0.006	1.558	0.059	4.978
110	N/A	Glycol ethers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111	76448	Heptachlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112	118741	Hexachlorobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
113	87683	Hexachlorobutadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
114	77474	Hexachlorocyclopentadiene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	67721	Hexachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
116	822060	Hexamethylene-1,6 diisocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117	680319	Hexamethylphosphoramide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
118	110543	Hexane	1.585	0.710	0.456	0.159	0.001	0.001	0.104	0.000	3.016
119	302012	Hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	7647010	Hydrochloric acid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122	123319	Hydroquinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
123	78591	Isophorone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
124	N/A	Lead Compounds	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
125	58899	Lindane (all isomers)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
126	108316	Maleic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127	N/A	Manganese Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
128	N/A	Mercury Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
129	67561	Methanol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	72435	Methoxychlor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
131	74839	Methyl bromide(Bromomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132	71556	Methyl chloroform (1,1,1-Trichloroethar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	78933	Methyl ethyl ketone (2-Butanone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
134	60344	Methyl hydrazine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	74884	Methyl iodide (Iodomethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
136	108101	Methyl isobutyl ketone (Hexone)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137	624839	Methyl isocyanate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
138	80626	Methyl methacrylate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
139	1634044	Methyl tert butyl ether	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	74873	Methylchloride (Chloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
141	75092	Methylene chloride(Dichloromethane)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142	101688	Methylene diphenyl diisocyante (MDI)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
143	N/A	Mineral fibers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	121697	N,N-Diethyl anniline (N,N-Dimethylanir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	91203	Naphthalene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
146	N/A	Nickel Compounds	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
147	98953	Nitrobenzene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	62759	N-Nitrosodimethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
149	59892	N-Nitrosomorpholine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	684935	N-Nitroso-N-methylurea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
151	90040	o-Anisidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152	95534	o-Toluidine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
153	56382	Parathion	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
154	82688	Pentachloromitrobenzene (Quintobenz	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	87865	Pentachlorophenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
156	108952	Phenol	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157	75445	Phosgene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
158	7723140	Phosphorus	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
159	7803512	Phospine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	85449	Phthalic anhydride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
161	1336363	Polychlorinated biphenyls (Aroclors)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	N/A	Polycylic Organic Matter	0.002	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.005
163	106503	p-Phenylemediamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	123386	Propionaldehyde	0.093	0.044	0.028	0.008	0.004	0.003	0.115	0.000	0.294

Section 112 Hazardous Air Pollutants

No.	CAS No.	Chemical Name	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	On-Road Mobile Totals
165	114261	Propoxur(Baygon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
166	78875	Propylene dichloride (1,2-Dichloroprop:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	75569	Propylene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	91225	Quinoline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
169	106514	Quinone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	N/A	Radionuclides (including radon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
171	N/A	Selenium Compounds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172	100425	Styrene	0.524	0.248	0.158	0.000	0.000	0.000	0.040	0.000	0.971
173	96093	Styrene oxide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
174	127184	Tetrachloroethylene (Perchloroethylene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	7550450	Titanium tetrachloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
176	108883	Toluene	16.932	7.941	5.068	1.512	0.001	0.000	0.061	0.000	31.514
177	8001352	Toxaphene (chlorinated camphene)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
178	79016	Trichloroethylene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
179	121448	Triethylamine	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	1582098	Trifluralin	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
181	108054	Vinyl acetate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
182	593602	Vinyl bromide	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
183	75014	Vinyl chloride	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
184	75354	Vinylidene chloride (1,1-Dichloroethyle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
185	1330207	Xylenes (isomers and mixture)	9.520	4.466	2.850	0.849	0.001	0.001	0.091	0.000	17.777
186	95476	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
187	108383	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
188	106423	Xylenes (isomers and mixture)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Totals:	42.6	19.8	12.8	4.0	0.0	0.0	3.0	0.2	82.3