Microscale Carbon Monoxide Impact Assessment for the Atlantic Steel Development Project

Appendix 2
MOBILE5a Input Files

Randall Guensler, Ph.D.
Michael O. Rodgers, Ph.D.
William H. Bachman, Ph.D.
John D. Leonard II, Ph.D.

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MOBILE5a Input Files

This appendix contains the MOBILE5a input files used to generate the emission rates employed in the CALINE4 dispersion model. The base input data file was provided by Dale Aspy (1999) of the US Environmental Protection Agency Region IV. The microscale modeling team modified the input file to produce emissions estimates for the January temperature conditions associated with the worst-case analyses. Emissions were predicted in 2.5-mph increments of average speed so that an appropriate emission rate look-up table could be developed for use in CALINE4 modeling. The evening files are not presented in this appendix, but differ only in ambient temperature.

The microscale modeling team ran MOBILE5a scenarios for calendar years, 1998, 2000, 2005, 2015, and 2025. The input files include vehicle fleet characteristics (model year distributions) appropriate for the Atlanta, rather than national fleet default values. The ambient temperature for morning runs was set to 14?F, and 23?F for evening scenario runs. Minimum and maximum temperatures were set at 10?F and 30?F, but do not impact carbon monoxide estimates.

The MOBILE5a model predicts increased emissions running exhaust emission rate for vehicles, based upon an assumed fraction of vehicles operating in cold start, hot start, and hot stabilized modes (Chatterjee, et al., 1997; Guensler, 1993). The microscale team employed EPA's national default values for fraction of cold start and hot start activity by catalytic converter-equipped and non-converter vehicles (20.6, 27.3, and 20.6), expending no resources to develop alternative start fractions. A forthcoming paper on engine start emissions (Guensler and Washington, 1999; Guensler and Washington, 1998) argues that there is no valid scientific basis for the use of the hot- and cold-start fraction corrections currently employed in the MOBILE model. To maintain consistency between the way that data are collected on the Federal Test Procedure and then manipulated in the MOBILE5a internal model equations, the research team decided to retain the national default values for all analyses. Note the USEPA has developed gram/start emission rates that will appear in the MOBILE6 emission rate model this year that will correct the start-related emissions flaws in the MOBILE5a model.

The MOBILE5a input files represent the inspection and maintenance program that was in place in Atlanta in 1998. At that time, the standard biennial test-only, two-speed idle test applied to all vehicles of 1975 and later model years. The 2500 rpm and idle tests have the following cutpoints: HC, 220.000; CO, 1.200and NOx, 999.000. The program assumes a 10% waiver rate and a 97% compliance rate. An anti-tampering inspection (catalyst check only) and gas cap pressure test program were also in place. In 1999, an enhanced inspection and maintenance program required dynamometer (automobile treadmill) testing of vehicles older then 5 years of age. The Acceleration Simulation Mode dynamometer test is much more stringent that a two-speed idle test, increasing the likelihood that older vehicles will fail the test and require adjustment or repair. Hence, under the ASM program, emissions should be significantly lower than under the previous biennial inspection program. To estimate the effect of the enhanced inspection and maintenance program, two MOBILE5a input files would need to be developed. One input file would apply to new vehicles (0 to 5 years of age) under a biennial two-speed idle test, and one would apply to older vehicles (5+ years of age) subject to the ASM test. Fleet emission rates would need to be hand-calculated using the model year emission rate outputs from

each MOBILE5a run (weighting by fleet penetration of each model year). Rather than undertaking the additional labor required to represent the enhanced test and develop emission rates for the hybrid program, the microscale modeling team simply used the MOBILE5a input files that represent the less stringent inspection and maintenance program. The vehicle emission rates determined using this input file are greater than those that would normally result from the current Atlanta program. Hence, the model results over-predict carbon monoxide emissions and resulting concentrations for the scenarios. If violations of ambient air quality standard do not result from the higher, more conservative emissions rates, no violations are likely under the new Atlanta inspection and maintenance program.

No reformulated fuels program was assumed to be in operation, although it is likely that future fuels programs designed to reduce emissions will be in place. As with the inspection and maintenance assumption, the fuels assumption will overestimate future fleet emission rates, making analyses more conservative.

```
Year 1998 7am Input File
1          PROMPT
 2-speed idle, bien. test-only, (asm2to.)(newfolks.)(2idle.)
1          TAMFLG
1          SPDFLG
1          VMFLAG
3          MYMRFG
1          NEWFLG
22         IMFLAG - one I/M program, tech. training
1          ALHFLG
5          ATPFLG - ATP and Pressure
2          RLFLAG
2          LOCFLG - LAP record appears once, in One-Time data section.
2          TEMFLG
5          OUTFMT - by model year
4          PRTFLG - Print exhaust HC, CO and NOx results.
1          IDLFLG
3          NMHFLG - Calculate emissions for volatile organic hydrocarbons.
1          HCFLAG - no component emissions.
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     JULMYR.LDGV..ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDGV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDGV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT1.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT1.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT1.my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT2.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT2.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT2.my ages 21-25
 .064 .062 .071 .089 .071 .069 .057 .051 .043 .023     .HDGV..my ages 1-10
 .020 .040 .034 .036 .032 .024 .027 .026 .022 .018     .HDGV..my ages 11-20
 .013 .014 .014 .009 .071                              .HDGV..my ages 21-25
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     .LDDV..my ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDDV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDDV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDDT..my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDDT..my ages 11-20
 .007 .006 .007 .005 .020                              .LDDT..my ages 21-25
 .076 .077 .113 .113 .090 .078 .081 .068 .029 .026     .HDDV..my ages 1-10
 .022 .039 .033 .034 .027 .011 .014 .017 .014 .010     .HDDV..my ages 11-20
 .007 .005 .004 .003 .009                              .HDDV..my ages 21-25
 .008 .009 .010 .013 .017 .030 .030 .025 .036 .055     .MC....my ages 1-10
 .037 .730 .000 .000 .000 .000 .000 .000 .000 .000     .MC....my ages 11-20
 0.0    0.0    0.0    0.0    0.0                       .MC....my ages 21-25
82 20 75 20 10 10 097 1 2 2221 2211 220. 1.20 999.     2500/Idle test
82 75 20 2221 12 097. 12111111                         ATP
82 75 20 2221 12 097.                                  Pressure
92 3 81. 81.                                           Stage II
bien. t.o. hybrd B  10.  30. 08.5 07.0 92 1 1 1        Local Area Parameter record
22211111 1
1 98 02.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98  5.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98  7.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 10.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 12.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 15.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 17.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 20.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 22.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 25.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 27.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 30.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 32.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 35.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 37.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 40.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 42.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 45.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 47.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 50.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 52.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 55.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 57.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 60.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 62.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 65.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 67.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 98 70.0 14.0 20.6 27.3 20.6 01                       Scenario description record
0000000000000000000000000000000000000000000000000000000000000000000000000
```

```
Year 2000 7am Input File
1          PROMPT
 2-speed idle, bien. test-only, (asm2to.)(newfolks.)(2idle.)
1          TAMFLG
1          SPDFLG
1          VMFLAG
3          MYMRFG
1          NEWFLG
22         IMFLAG - one I/M program, tech. training
1          ALHFLG
5          ATPFLG - ATP and Pressure
2          RLFLAG
2          LOCFLG - LAP record appears once, in One-Time data section.
2          TEMFLG
5          OUTFMT - by model year
4          PRTFLG - Print exhaust HC, CO and NOx results.
1          IDLFLG
3          NMHFLG - Calculate emissions for volatile organic hydrocarbons.
1          HCFLAG - no component emissions.
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     JULMYR.LDGV..ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDGV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDGV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT1.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT1.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT1.my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT2.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT2.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT2.my ages 21-25
 .064 .062 .071 .089 .071 .069 .057 .051 .043 .023     .HDGV..my ages 1-10
 .020 .040 .034 .036 .032 .024 .027 .026 .022 .018     .HDGV..my ages 11-20
 .013 .014 .014 .009 .071                              .HDGV..my ages 21-25
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     .LDDV..my ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDDV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDDV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDDT..my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDDT..my ages 11-20
 .007 .006 .007 .005 .020                              .LDDT..my ages 21-25
 .076 .077 .113 .113 .090 .078 .081 .068 .029 .026     .HDDV..my ages 1-10
 .022 .039 .033 .034 .027 .011 .014 .017 .014 .010     .HDDV..my ages 11-20
 .007 .005 .004 .003 .009                              .HDDV..my ages 21-25
 .008 .009 .010 .013 .017 .030 .030 .025 .036 .055     .MC....my ages 1-10
 .037 .730 .000 .000 .000 .000 .000 .000 .000 .000     .MC....my ages 11-20
 0.0    0.0    0.0    0.0    0.0                       .MC....my ages 21-25
82 20 75 20 10 10 097 1 2 2221 2211 220. 1.20 999.     2500/Idle test
82 75 20 2221 12 097. 12111111                         ATP
82 75 20 2221 12 097.                                  Pressure
92 3 81. 81.                                           Stage II
bien. t.o. hybrd B  10.  30. 08.5 07.0 92 1 1 1        Local Area Parameter record
22211111 1
1 00 02.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00  5.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00  7.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 10.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 12.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 15.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 17.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 20.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 22.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 25.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 27.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 30.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 32.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 35.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 37.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 40.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 42.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 45.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 47.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 50.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 52.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 55.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 57.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 60.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 62.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 00 65.0 14.0 20.6 27.3 20.6 01                       Scenario description record
0000000000000000000000000000000000000000000000000000000000000000000000000
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Year 2005 7am Input File
1          PROMPT
 2-speed idle, bien. test-only, (asm2to.)(newfolks.)(2idle.)
1          TAMFLG
1          SPDFLG
1          VMFLAG
3          MYMRFG
1          NEWFLG
22         IMFLAG - one I/M program, tech. training
1          ALHFLG
5          ATPFLG - ATP and Pressure
2          RLFLAG
2          LOCFLG - LAP record appears once, in One-Time data section.
2          TEMFLG
5          OUTFMT - by model year
4          PRTFLG - Print exhaust HC, CO and NOx results.
1          IDLFLG
3          NMHFLG - Calculate emissions for volatile organic hydrocarbons.
1          HCFLAG - no component emissions.
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     JULMYR.LDGV..ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDGV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDGV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT1.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT1.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT1.my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT2.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT2.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT2.my ages 21-25
 .064 .062 .071 .089 .071 .069 .057 .051 .043 .023     .HDGV..my ages 1-10
 .020 .040 .034 .036 .032 .024 .027 .026 .022 .018     .HDGV..my ages 11-20
 .013 .014 .014 .009 .071                              .HDGV..my ages 21-25
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     .LDDV..my ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDDV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDDV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDDT..my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDDT..my ages 11-20
 .007 .006 .007 .005 .020                              .LDDT..my ages 21-25
 .076 .077 .113 .113 .090 .078 .081 .068 .029 .026     .HDDV..my ages 1-10
 .022 .039 .033 .034 .027 .011 .014 .017 .014 .010     .HDDV..my ages 11-20
 .007 .005 .004 .003 .009                              .HDDV..my ages 21-25
 .008 .009 .010 .013 .017 .030 .030 .025 .036 .055     .MC....my ages 1-10
 .037 .730 .000 .000 .000 .000 .000 .000 .000 .000     .MC....my ages 11-20
 0.0    0.0    0.0    0.0    0.0                       .MC....my ages 21-25
82 20 75 20 10 10 097 1 2 2221 2211 220. 1.20 999.     2500/Idle test
82 75 20 2221 12 097. 12111111                         ATP
82 75 20 2221 12 097.                                  Pressure
92 3 81. 81.                                           Stage II
bien. t.o. hybrd B  10.  30. 08.5 07.0 92 1 1 1        Local Area Parameter record
22211111 1
1 05 02.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05  5.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05  7.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 10.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 12.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 15.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 17.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 20.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 22.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 25.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 27.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 30.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 32.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 35.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 37.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 40.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 42.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 45.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 47.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 50.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 52.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 55.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 57.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 60.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 62.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 05 65.0 14.0 20.6 27.3 20.6 01                       Scenario description record
0000000000000000000000000000000000000000000000000000000000000000000000000
```

```
Year 2015 7am Input File
1          PROMPT
 2-speed idle, bien. test-only, (asm2to.)(newfolks.)(2idle.)
1          TAMFLG
1          SPDFLG
1          VMFLAG
3          MYMRFG
1          NEWFLG
22         IMFLAG - one I/M program, tech. training
1          ALHFLG
5          ATPFLG - ATP and Pressure
2          RLFLAG
2          LOCFLG - LAP record appears once, in One-Time data section.
2          TEMFLG
5          OUTFMT - by model year
4          PRTFLG - Print exhaust HC, CO and NOx results.
1          IDLFLG
3          NMHFLG - Calculate emissions for volatile organic hydrocarbons.
1          HCFLAG - no component emissions.
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     JULMYR.LDGV..ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDGV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDGV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT1.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT1.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT1.my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT2.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT2.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT2.my ages 21-25
 .064 .062 .071 .089 .071 .069 .057 .051 .043 .023     .HDGV..my ages 1-10
 .020 .040 .034 .036 .032 .024 .027 .026 .022 .018     .HDGV..my ages 11-20
 .013 .014 .014 .009 .071                              .HDGV..my ages 21-25
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     .LDDV..my ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDDV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDDV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDDT..my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDDT..my ages 11-20
 .007 .006 .007 .005 .020                              .LDDT..my ages 21-25
 .076 .077 .113 .113 .090 .078 .081 .068 .029 .026     .HDDV..my ages 1-10
 .022 .039 .033 .034 .027 .011 .014 .017 .014 .010     .HDDV..my ages 11-20
 .007 .005 .004 .003 .009                              .HDDV..my ages 21-25
 .008 .009 .010 .013 .017 .030 .030 .025 .036 .055     .MC....my ages 1-10
 .037 .730 .000 .000 .000 .000 .000 .000 .000 .000     .MC....my ages 11-20
 0.0    0.0    0.0    0.0    0.0                       .MC....my ages 21-25
82 20 75 20 10 10 097 1 2 2221 2211 220. 1.20 999.     2500/Idle test
82 75 20 2221 12 097. 12111111                         ATP
82 75 20 2221 12 097.                                  Pressure
92 3 81. 81.                                           Stage II
bien. t.o. hybrd B  10.  30. 08.5 07.0 92 1 1 1        Local Area Parameter record
22211111 1
1 15 02.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15  5.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15  7.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 10.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 12.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 15.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 17.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 20.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 22.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 25.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 27.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 30.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 32.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 35.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 37.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 40.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 42.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 45.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 47.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 50.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 52.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 55.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 57.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 60.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 62.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 15 65.0 14.0 20.6 27.3 20.6 01                       Scenario description record
0000000000000000000000000000000000000000000000000000000000000000000000000
```

```
Year 2015 7am Input File
1          PROMPT
 2-speed idle, bien. test-only, (asm2to.)(newfolks.)(2idle.)
1          TAMFLG
1          SPDFLG
1          VMFLAG
3          MYMRFG
1          NEWFLG
22         IMFLAG - one I/M program, tech. training
1          ALHFLG
5          ATPFLG - ATP and Pressure
2          RLFLAG
2          LOCFLG - LAP record appears once, in One-Time data section.
2          TEMFLG
5          OUTFMT - by model year
4          PRTFLG - Print exhaust HC, CO and NOx results.
1          IDLFLG
3          NMHFLG - Calculate emissions for volatile organic hydrocarbons.
1          HCFLAG - no component emissions.
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     JULMYR.LDGV..ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDGV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDGV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT1.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT1.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT1.my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDGT2.my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDGT2.my ages 11-20
 .007 .006 .007 .005 .020                              .LDGT2.my ages 21-25
 .064 .062 .071 .089 .071 .069 .057 .051 .043 .023     .HDGV..my ages 1-10
 .020 .040 .034 .036 .032 .024 .027 .026 .022 .018     .HDGV..my ages 11-20
 .013 .014 .014 .009 .071                              .HDGV..my ages 21-25
 .067 .065 .072 .074 .072 .068 .062 .056 .046 .033     .LDDV..my ages 1-10
 .032 .074 .065 .051 .033 .026 .019 .021 .015 .011     .LDDV..my ages 11-20
 .008 .007 .005 .004 .014                              .LDDV..my ages 21-25
 .058 .066 .078 .083 .078 .082 .069 .057 .045 .026     .LDDT..my ages 1-10
 .024 .065 .068 .040 .031 .024 .015 .019 .015 .012     .LDDT..my ages 11-20
 .007 .006 .007 .005 .020                              .LDDT..my ages 21-25
 .076 .077 .113 .113 .090 .078 .081 .068 .029 .026     .HDDV..my ages 1-10
 .022 .039 .033 .034 .027 .011 .014 .017 .014 .010     .HDDV..my ages 11-20
 .007 .005 .004 .003 .009                              .HDDV..my ages 21-25
 .008 .009 .010 .013 .017 .030 .030 .025 .036 .055     .MC....my ages 1-10
 .037 .730 .000 .000 .000 .000 .000 .000 .000 .000     .MC....my ages 11-20
 0.0    0.0    0.0    0.0    0.0                       .MC....my ages 21-25
82 20 75 20 10 10 097 1 2 2221 2211 220. 1.20 999.     2500/Idle test
82 75 20 2221 12 097. 12111111                         ATP
82 75 20 2221 12 097.                                  Pressure
92 3 81. 81.                                           Stage II
bien. t.o. hybrd B  10.  30. 08.5 07.0 92 1 1 1        Local Area Parameter record
22211111 1
1 20 02.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20  5.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20  7.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 10.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 12.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 15.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 17.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 20.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 22.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 25.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 27.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 30.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 32.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 35.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 37.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 40.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 42.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 45.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 47.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 50.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 52.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 55.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 57.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 60.0 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 62.5 14.0 20.6 27.3 20.6 01                       Scenario description record
1 20 65.0 14.0 20.6 27.3 20.6 01                       Scenario description record
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