

## Chapter NR 485

# CONTROL OF EMISSIONS FROM MOTOR VEHICLES, INTERNAL COMBUSTION ENGINES AND MOBILE SOURCES; TAMPERING PROHIBITION

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**Note:** Corrections made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1997, No. 493.

**NR 485.01 Applicability; purpose. (1) APPLICABILITY.** This chapter applies to all motor vehicles, internal combustion engines and mobile air contaminant sources and to their owners and operators.

**(2) PURPOSE.** This chapter is adopted under ss. 285.11, 285.13, 285.30 and 285.39, Stats., to establish emission limitations for motor vehicles, internal combustion engines and mobile air contaminant sources, to prohibit any person from tampering with the air pollution control equipment of a motor vehicle and to require tampering inspections.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; am. (2), Register, July, 1989, No. 403, eff. 8-1-89; am. (1), Register, February, 1990, No. 410, eff. 3-1-90; am. (1), Register, May, 1992, No. 437, eff. 6-1-92.

**NR 485.02 Definitions.** The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

**(1)** "Adjusted loaded vehicle weight" or "ALVW" means the numerical average of a vehicle's curb weight and its gross vehicle weight rating.

**(2)** "Air pollution control equipment" has the meaning given in s. 285.30 (6) (a) 1., Stats.

**(5)** "Basic vehicle frontal area" means the area enclosed by the geometric projection of the basic vehicle along the longitudinal axis, which includes tires but excludes mirrors and air defectors, onto a plane perpendicular to the longitudinal axis of the vehicle.

**(6)** "Curb weight" means the actual or the manufacturer's estimated weight of the vehicle in operational status with all standard equipment plus the weight of fuel at normal tank capacity and the weight of optional equipment.

**(7)** "DOT" means the Wisconsin department of transportation.

**(10)** "Gross vehicle weight rating" or "GVWR" means the weight specified by the vehicle manufacturer as the maximum allowable loaded weight of a single vehicle.

**(11)** "Heavy-duty vehicle" means any motor vehicle rated at more than 8,500 pounds GVWR or that has a vehicle curb weight of more than 6,000 pounds or that has a basic vehicle frontal area in excess of 45 square feet.

**(12)** "Homemade vehicle" has the meaning given in s. 341.268 (1) (b), Stats.

**(13)** "Light-duty truck" means any motor vehicle rated at 8,500 pounds GVWR or less and which has a vehicle curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less, and which is one of the following:

(a) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle.

(b) Designed primarily for transportation of persons and has a capacity of more than 12 persons.

(c) Available with special features enabling off-street or off-highway operation and use.

**(14)** "Light-duty vehicle" means a passenger car or passenger car derivative capable of seating 12 passengers or less.

**(15)** "Loaded vehicle weight" or "LVW" means a vehicle's curb weight, in pounds, plus 300 pounds.

**(16)** "Model year" means the nominal year of manufacture of the original vehicle within the annual production period of the vehicle as designated by the manufacturer, or if a reconstructed or homemade vehicle, the first year of titling. If the manufacturer does not designate a production period, the term "model year" means the calendar year of manufacture.

**(17)** "Reconstructed vehicle" has the meaning given in s. 341.268 (1) (d), Stats.

**(19)** "Tamper" has the meaning given in s. 285.30 (6) (a) 3., Stats.

**(20)** "Tampering inspection" means an inspection for tampering of air pollution control equipment.

**(21)** "Tier 1 emission standards" means the standards for light-duty vehicles of model year 1994 and newer and light-duty trucks of model year 1994 and newer in section 202 (g) and (h) of the federal clean air act, 42 USC 7521 (g) and (h).

**(22)** "Transient driving cycle" means the 240 second driving cycle specified in Appendix E to Subpart S of 40 CFR part 51, incorporated by reference in s. NR 484.04 (8).

**(23)** "Transient emission test" means the emission test specified in 40 CFR 51.357 (a) (11), as in effect on July 1, 1998, which consists of 240 seconds of mass emission measurement while the vehicle is driven on a dynamometer.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; r. and recr. Register, July, 1989, No. 403, eff. 8-1-89; am. (intro.), Register, June, 1993, No. 450, eff. 7-1-93; r. and recr., Register, December, 1995, No. 480, eff. 1-1-96; am. (8), (9) and (23), Register, November, 1999, No. 527, eff. 12-1-99; correction in (18) and (22) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2001, No. 541; **CR 10-049:** r. (3), (4), (8), (9), (18) Register November 2010 No. 659, eff. 12-1-10.

**NR 485.03 General limitations.** No person may cause, allow or permit emissions of particulate matter, sulfur oxides, hydrocarbons, carbon monoxide, nitrogen oxides, or odors from a motor vehicle, internal combustion engine, or mobile source which substantially contribute to the exceeding of an air standard or create air pollution.

**History:** Renum. from NR 154.17 (1), Register, September, 1986, No. 369, eff. 10-1-86; am. Register, July, 1989, No. 403, eff. 8-1-89; am. Register, May, 1992, No. 437, eff. 6-1-92.

**NR 485.04 Motor vehicle emission limitations; exemptions.** (1) **APPLICABILITY.** Except as provided in subs. (9) and (10), the emission limitations in this section apply to motor vehicles subject to inspection under s. 110.20 (6) (a), Stats., when inspected under ch. Trans 131.

(2) **TRANSIENT EMISSION TEST.** Except as provided in sub. (7), any motor vehicle undergoing the transient emission test may not emit from the exhaust system:

(a) Carbon monoxide in rates that exceed both:

1. The applicable composite emission rate in Table 1 when measured over the entire transient driving cycle.

2. The applicable phase 2 emission rate in Table 1 when measured from second 94 to the end of the transient driving cycle.

(b) Hydrocarbons in rates that exceed both:

1. The applicable composite emission rate in Table 1 when measured over the entire transient driving cycle.

2. The applicable phase 2 emission rate in Table 1 when measured from second 94 to the end of the transient driving cycle.

(c) Oxides of nitrogen in a rate that exceeds the applicable composite emission rate in Table 1 when measured over the entire transient driving cycle, except as provided in sub. (9).

(5) **GAS CAP INTEGRITY TEST.** Any motor vehicle gas cap undergoing a test for pressure leaks on a gas cap tester rig may not exhibit a pressure decay of 6 inches of water or more during a 10 second measurement period after the gas cap is pressurized to  $28 \pm 1.0$  inches of water.

(7) **FAST-PASS TRANSIENT EMISSION TEST.** Compliance with the emission limitations in sub. (2) for the transient emission test may be demonstrated prior to the completion of the test if all of the following conditions are met during the same second of the transient driving cycle:

(a) *Hydrocarbons.* For hydrocarbons, one of the following:

1. At least 30 seconds of the transient driving cycle has elapsed and the cumulative emission level of hydrocarbons, measured from the start of the cycle in grams, is less than the applicable composite fast-pass emission limitation in sub. (1) of Table 3.

2. At least 94 seconds of the transient driving cycle has elapsed and the cumulative emission level of hydrocarbons,

measured from second 94 of the cycle in grams, is less than the applicable phase 2 fast-pass emission limitation in sub. (1) of Table 3.

(b) *Carbon monoxide.* For carbon monoxide, one of the following:

1. At least 30 seconds of the transient driving cycle has elapsed and the cumulative emission level of carbon monoxide, measured from the start of the cycle in grams, is less than the applicable composite fast-pass emission limitation in sub. (2) of Table 3.

2. At least 94 seconds of the transient driving cycle has elapsed and the cumulative emission level of carbon monoxide, measured from second 94 of the cycle in grams, is less than the applicable phase 2 fast-pass emission limitation in sub. (2) of Table 3.

(c) *Oxides of nitrogen.* Except as provided in sub. (9), at least 30 seconds of the transient driving cycle has elapsed and the cumulative emission level of oxides of nitrogen, measured from the start of the cycle in grams, is less than the applicable composite fast-pass emission limitation in sub. (3) of Table 3.

(9) **EFFECTIVE DATE FOR OXIDES OF NITROGEN REQUIREMENTS.** An inspection under s. 110.20 (6) (a), Stats., shall include an inspection for emissions of oxides of nitrogen. However, the emission limitations for oxides of nitrogen in subs. (2) (c) and (7) (c) shall apply for compliance purposes only to inspections conducted after May 1, 2001.

(10) **EXEMPTIONS.** In addition to the vehicles specified in s. 285.30 (5), Stats., the following motor vehicles are exempt from the emission limitations of this section:

(a) A motor vehicle powered solely by electricity.

(b) A motor vehicle registered under s. 341.266 (2) (a) or 341.268 (2) (a), Stats., except as provided in sub. (11).

(11) **PERIODIC TESTING OF COLLECTOR AND HOBBYIST VEHICLES.** A motor vehicle registered under s. 341.266 (2) (a) or 341.268 (2) (a), Stats., shall be inspected and subject to the emission limitations of this section only in conjunction with any of the following actions:

(a) Initial registration of the vehicle under s. 341.266 (2) (a) or 341.268 (2) (a), Stats.

(b) Any transfer of ownership of the vehicle.

**Table 1**  
**Emission Limitations For The Transient Emission Test**

**(1) MOTOR VEHICLES INSPECTED BETWEEN DECEMBER 1, 1995, AND NOVEMBER 30, 1996.**

(a) *Light-Duty Vehicles.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer | 0.90                         | 0.60    | 17.5                            | 14.0    | 2.3                                |
| 1991-1995      | 1.40                         | 0.90    | 23.0                            | 18.5    | 3.0                                |
| 1983-1990      | 2.30                         | 1.40    | 35.0                            | 28.0    | 3.5                                |
| 1981-1982      | 2.30                         | 1.40    | 70.0                            | 55.0    | 3.5                                |
| 1980           | 2.30                         | 1.40    | 70.0                            | 55.0    | 7.0                                |
| 1977-1979      | 8.50                         | 5.30    | 100                             | 80.0    | 7.0                                |
| 1975-1976      | 8.50                         | 5.30    | 100                             | 80.0    | 10.5                               |
| 1973-1974      | 11.5                         | 7.25    | 175                             | 140     | 10.5                               |
| 1968-1972      | 11.5                         | 7.25    | 175                             | 140     | 11.5                               |

(b) *Light-Duty Trucks with GVWR of 6,000 pounds or less.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer | 1.15                         | 0.75    | 23.0                            | 18.5    | 3.0                                |
| 1991-1995      | 2.75                         | 1.75    | 70.0                            | 55.0    | 3.5                                |
| 1988-1990      | 3.70                         | 2.30    | 90.0                            | 72.0    | 4.0                                |
| 1984-1987      | 3.70                         | 2.30    | 90.0                            | 72.0    | 8.0                                |
| 1979-1983      | 8.50                         | 5.30    | 115                             | 90.0    | 8.0                                |
| 1975-1978      | 9.20                         | 5.80    | 140                             | 110     | 10.5                               |
| 1973-1974      | 11.5                         | 7.25    | 175                             | 140     | 10.5                               |
| 1968-1972      | 11.5                         | 7.25    | 175                             | 140     | 11.5                               |

(c) *Light-Duty Trucks with GVWR of 6,001 to 8,500 pounds and Heavy-Duty Vehicles with GVWR of 8,500 pounds or less.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1997 and newer | 1.15                         | 0.75    | 23.0                            | 18.5    | 3.0                                |
| 1991-1996      | 2.75                         | 1.75    | 70.0                            | 55.0    | 5.2                                |
| 1988-1990      | 3.70                         | 2.30    | 90.0                            | 72.0    | 5.8                                |
| 1984-1987      | 3.70                         | 2.30    | 90.0                            | 72.0    | 8.0                                |
| 1979-1983      | 8.50                         | 5.30    | 115                             | 90.0    | 8.0                                |
| 1975-1978      | 9.20                         | 5.80    | 140                             | 110     | 10.5                               |
| 1973-1974      | 11.5                         | 7.25    | 175                             | 140     | 10.5                               |
| 1968-1972      | 11.5                         | 7.25    | 175                             | 140     | 11.5                               |

(d) *Heavy-Duty Vehicles with GVWR of 8,501 to 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 2.75                         | 1.75    | 70.0                            | 55.0    | 4.5                                |
| 1991-1997      | 3.70                         | 2.30    | 70.0                            | 55.0    | 7.0                                |
| 1987-1990      | 3.70                         | 2.30    | 90.0                            | 72.0    | 9.0                                |
| 1985-1986      | 5.75                         | 3.60    | 90.0                            | 72.0    | 9.0                                |
| 1979-1984      | 8.50                         | 5.30    | 115                             | 90.0    | 9.0                                |
| 1974-1978      | 11.5                         | 7.25    | 175                             | 140     | 11.5                               |
| 1970-1973      | 11.5                         | 7.25    | 200                             | 160     | 11.5                               |
| 1968-1969      | 23.0                         | 14.5    | 230                             | 185     | 17.5                               |

**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

(e) *Heavy-Duty Vehicles with GVWR greater than 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 5.50                         | 3.50    | 140                             | 110     | 9.0                                |
| 1991-1997      | 7.40                         | 4.70    | 140                             | 110     | 14.0                               |
| 1987-1990      | 7.40                         | 4.70    | 185                             | 150     | 18.5                               |
| 1985-1986      | 11.5                         | 7.25    | 185                             | 150     | 18.5                               |
| 1979-1984      | 13.0                         | 8.20    | 205                             | 165     | 18.5                               |
| 1974-1978      | 15.0                         | 9.50    | 230                             | 185     | 23.0                               |
| 1970-1973      | 15.0                         | 9.50    | 260                             | 210     | 23.0                               |
| 1968-1969      | 27.0                         | 17.0    | 290                             | 230     | 35.0                               |

(2) MOTOR VEHICLES INSPECTED BETWEEN DECEMBER 1, 1996, AND NOVEMBER 30, 1997.

(a) *Light-Duty Vehicles.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1991-1995      | 1.25                         | 0.75    | 20.0                            | 16.0    | 2.5                                |
| 1983-1990      | 2.00                         | 1.25    | 30.0                            | 24.0    | 3.0                                |
| 1981-1982      | 2.00                         | 1.25    | 60.0                            | 48.0    | 3.0                                |
| 1980           | 2.00                         | 1.25    | 60.0                            | 48.0    | 6.0                                |
| 1977-1979      | 7.50                         | 5.00    | 90.0                            | 72.0    | 6.0                                |
| 1975-1976      | 7.50                         | 5.00    | 90.0                            | 72.0    | 9.0                                |
| 1973-1974      | 10.0                         | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |

(b) *Light-Duty Trucks with GVWR of 6,000 pounds or less.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer | 1.00                         | 0.63    | 20.0                            | 16.0    | 2.5                                |
| 1991-1995      | 2.40                         | 1.50    | 60.0                            | 48.0    | 3.0                                |
| 1988-1990      | 3.20                         | 2.00    | 80.0                            | 64.0    | 3.5                                |
| 1984-1987      | 3.20                         | 2.00    | 80.0                            | 64.0    | 7.0                                |
| 1979-1983      | 7.50                         | 5.00    | 100                             | 80.0    | 7.0                                |
| 1975-1978      | 8.00                         | 5.00    | 120                             | 96.0    | 9.0                                |
| 1973-1974      | 10.0                         | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |

(c) *Light-Duty Trucks with GVWR of 6,001 to 8,500 pounds and Heavy-Duty Vehicles with GVWR of 8,500 pounds or less.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1997 and newer | 1.00                         | 0.63    | 20.0                            | 16.0    | 2.5                                |
| 1991-1996      | 2.40                         | 1.50    | 60.0                            | 48.0    | 4.5                                |
| 1988-1990      | 3.20                         | 2.00    | 80.0                            | 64.0    | 5.0                                |
| 1984-1987      | 3.20                         | 2.00    | 80.0                            | 64.0    | 7.0                                |
| 1979-1983      | 7.50                         | 5.00    | 100                             | 80.0    | 7.0                                |
| 1975-1978      | 8.00                         | 5.00    | 120                             | 96.0    | 9.0                                |
| 1973-1974      | 10.0                         | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |

**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

(d) *Heavy-Duty Vehicles with GVWR of 8,501 to 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 2.40                         | 1.50    | 60.0                            | 48.0    | 4.0                                |
| 1991-1997      | 3.20                         | 2.00    | 60.0                            | 48.0    | 6.0                                |
| 1987-1990      | 3.20                         | 2.00    | 80.0                            | 64.0    | 8.0                                |
| 1985-1986      | 5.00                         | 3.10    | 80.0                            | 64.0    | 8.0                                |
| 1979-1984      | 7.50                         | 5.00    | 100                             | 80.0    | 8.0                                |
| 1974-1978      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |
| 1970-1973      | 10.0                         | 6.00    | 175                             | 140     | 10.0                               |
| 1968-1969      | 20.0                         | 12.5    | 200                             | 160     | 15.0                               |

(e) *Heavy-Duty Vehicles with GVWR greater than 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 4.80                         | 3.00    | 120                             | 96.0    | 8.0                                |
| 1991-1997      | 6.40                         | 4.00    | 120                             | 96.0    | 12.0                               |
| 1987-1990      | 6.40                         | 4.00    | 160                             | 128     | 16.0                               |
| 1985-1986      | 10.0                         | 6.00    | 160                             | 128     | 16.0                               |
| 1979-1984      | 11.5                         | 7.00    | 180                             | 145     | 16.0                               |
| 1974-1978      | 13.0                         | 8.00    | 200                             | 160     | 20.0                               |
| 1970-1973      | 13.0                         | 8.00    | 225                             | 180     | 20.0                               |
| 1968-1969      | 24.0                         | 15.0    | 250                             | 200     | 30.0                               |

**(3) MOTOR VEHICLES INSPECTED BETWEEN DECEMBER 1, 1997, AND NOVEMBER 30, 1998.**

(a) *Light-Duty Vehicles.*

| Model Years             | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                         | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer          | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| 1994-1995               |                              |         |                                 |         |                                    |
| Tier 1 <sup>1</sup>     | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| Not Tier 1 <sup>1</sup> | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1991-1993               | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1987-1990               | 1.10                         | 0.70    | 20.0                            | 16.0    | 2.5                                |
| 1983-1986               | 2.00                         | 1.25    | 30.0                            | 24.0    | 3.0                                |
| 1981-1982               | 2.00                         | 1.25    | 60.0                            | 48.0    | 3.0                                |
| 1980                    | 2.00                         | 1.25    | 60.0                            | 48.0    | 6.0                                |
| 1977-1979               | 7.50                         | 5.00    | 90.0                            | 72.0    | 6.0                                |
| 1975-1976               | 7.50                         | 5.00    | 90.0                            | 72.0    | 9.0                                |
| 1973-1974               | 10.00                        | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972               | 10.00                        | 6.00    | 150                             | 120     | 10.0                               |

(b) *Light-Duty Trucks with GVWR of 6,000 pounds or less.*

| Model Years                   | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                               | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer                |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) <sup>2</sup> | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| (>3750 lbs LVW) <sup>2</sup>  | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| 1994-1995                     |                              |         |                                 |         |                                    |
| Tier 1 <sup>3</sup>           |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) <sup>4</sup> | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| (>3750 lbs LVW) <sup>4</sup>  | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |

**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

| Model Years             | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                         | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| Not Tier 1 <sup>3</sup> | 1.60                         | 1.00    | 40.0                            | 32.0    | 2.5                                |
| 1991-1993               | 1.60                         | 1.00    | 40.0                            | 32.0    | 2.5                                |
| 1988-1990               | 2.20                         | 1.40    | 55.0                            | 44.0    | 3.0                                |
| 1987                    | 2.20                         | 1.40    | 55.0                            | 44.0    | 5.5                                |
| 1984-1986               | 3.20                         | 2.00    | 80.0                            | 64.0    | 7.0                                |
| 1979-1983               | 7.50                         | 5.00    | 100                             | 80.0    | 7.0                                |
| 1975-1978               | 8.00                         | 5.00    | 120                             | 96.0    | 9.0                                |
| 1973-1974               | 10.0                         | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972               | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |

(c) *Light-Duty Trucks with GVWR of 6,001 to 8,500 pounds and Heavy-Duty Vehicles with GVWR of 8,500 pounds or less.*

| Model Years                    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|--------------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1997 and newer                 |                              |         |                                 |         |                                    |
| (≤ 5750 lbs ALVW) <sup>5</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| (>5750 lbs ALVW) <sup>5</sup>  | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1996                           |                              |         |                                 |         |                                    |
| Tier 1 <sup>6</sup>            |                              |         |                                 |         |                                    |
| (≤ 5750 lbs ALVW) <sup>7</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| (>5750 lbs ALVW) <sup>7</sup>  | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| Not Tier 1 <sup>6</sup>        | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                |
| 1991-1995                      | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                |
| 1988-1990                      | 2.20                         | 1.40    | 55.0                            | 44.0    | 4.0                                |
| 1987                           | 2.20                         | 1.40    | 55.0                            | 44.0    | 5.5                                |
| 1984-1986                      | 3.20                         | 2.00    | 80.0                            | 64.0    | 7.0                                |
| 1979-1983                      | 7.50                         | 5.00    | 100                             | 80.0    | 7.0                                |
| 1975-1978                      | 8.00                         | 5.00    | 120                             | 96.0    | 9.0                                |
| 1973-1974                      | 10.0                         | 6.00    | 150                             | 120     | 9.0                                |
| 1968-1972                      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |

(d) *Heavy-Duty Vehicles with GVWR of 8,501 to 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 2.00                         | 1.25    | 30.0                            | 24.0    | 4.0                                |
| 1991-1997      | 2.00                         | 1.25    | 40.0                            | 32.0    | 5.0                                |
| 1987-1990      | 2.40                         | 1.50    | 55.0                            | 44.0    | 7.0                                |
| 1985-1986      | 5.00                         | 3.10    | 80.0                            | 64.0    | 8.0                                |
| 1979-1984      | 7.50                         | 5.00    | 100                             | 80.0    | 8.0                                |
| 1974-1978      | 10.0                         | 6.00    | 150                             | 120     | 10.0                               |
| 1970-1973      | 10.0                         | 6.00    | 175                             | 140     | 10.0                               |
| 1968-1969      | 20.0                         | 12.5    | 200                             | 160     | 15.0                               |

(e) *Heavy-Duty Vehicles with GVWR greater than 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1998 and newer | 3.50                         | 2.00    | 60.0                            | 48.0    | 7.0                                |
| 1991-1997      | 3.50                         | 2.00    | 70.0                            | 56.0    | 9.0                                |
| 1987-1990      | 4.50                         | 2.80    | 100                             | 80.0    | 13.0                               |
| 1985-1986      | 10.0                         | 6.00    | 160                             | 128     | 16.0                               |
| 1979-1984      | 11.5                         | 7.00    | 180                             | 145     | 16.0                               |

**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

| Model Years | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|             | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1974-1978   | 13.0                         | 8.00    | 200                             | 160     | 20.0                               |
| 1970-1973   | 13.0                         | 8.00    | 225                             | 180     | 20.0                               |
| 1968-1969   | 24.0                         | 15.0    | 250                             | 200     | 30.0                               |

**(4) MOTOR VEHICLES INSPECTED BETWEEN DECEMBER 1, 1998, AND MARCH 31, 2006. (a) Light-Duty Vehicles.**

| Model Years             | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                         | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer          | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| 1994-1995               |                              |         |                                 |         |                                    |
| Tier 1 <sup>1</sup>     | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| Not Tier 1 <sup>1</sup> | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1987-1993               | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1983-1986               | 2.00                         | 1.25    | 30.0                            | 24.0    | 3.0                                |
| 1981-1982               | 2.00                         | 1.25    | 60.0                            | 48.0    | 3.0                                |
| 1980                    | 2.00                         | 1.25    | 60.0                            | 48.0    | 4.0                                |
| 1977-1979               | 3.00                         | 2.00    | 65.0                            | 52.0    | 4.0                                |
| 1975-1976               | 3.00                         | 2.00    | 65.0                            | 52.0    | 6.0                                |
| 1973-1974               | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                |
| 1968-1972               | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                |

**(b) Light-Duty Trucks with GVWR of 6,000 pounds or less.**

| Model Years                   | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                               | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer                |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) <sup>2</sup> | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| (> 3750 lbs LVW) <sup>2</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| 1994-1995                     |                              |         |                                 |         |                                    |
| Tier 1 <sup>3</sup>           |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) <sup>4</sup> | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| (> 3750 lbs LVW) <sup>4</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| Not Tier 1 <sup>3</sup>       | 1.60                         | 1.00    | 40.0                            | 32.0    | 2.5                                |
| 1988-1993                     | 1.60                         | 1.00    | 40.0                            | 32.0    | 2.5                                |
| 1987                          | 1.60                         | 1.00    | 40.0                            | 32.0    | 4.5                                |
| 1984-1986                     | 3.20                         | 2.00    | 70.0                            | 56.0    | 4.5                                |
| 1979-1983                     | 3.40                         | 2.00    | 70.0                            | 56.0    | 4.5                                |
| 1975-1978                     | 4.00                         | 2.50    | 80.0                            | 64.0    | 6.0                                |
| 1973-1974                     | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                |
| 1968-1972                     | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                |

**(c) Light-Duty Trucks with GVWR of 6,001 to 8,500 pounds and Heavy-Duty Vehicles with GVWR of 8,500 pounds or less.**

| Model Years                    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|--------------------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1997 and newer                 |                              |         |                                 |         |                                    |
| (≤ 5750 lbs ALVW) <sup>5</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| (> 5750 lbs ALVW) <sup>5</sup> | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1996                           |                              |         |                                 |         |                                    |
| Tier 1 <sup>6</sup>            |                              |         |                                 |         |                                    |
| (≤ 5750 lbs ALVW) <sup>7</sup> | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |



**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

| Model Years                                  | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile)<br>Composite |
|----------------------------------------------|------------------------------|---------|---------------------------------|---------|-------------------------------------------------|
|                                              | Composite                    | Phase 2 | Composite                       | Phase 2 |                                                 |
| (>5750 lbs ALVW)/<br>Not Tier 1 <sup>6</sup> | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                             |
|                                              | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                             |
| 1988-1995                                    | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                             |
| 1987                                         | 1.60                         | 1.00    | 40.0                            | 32.0    | 4.5                                             |
| 1984-1986                                    | 3.20                         | 2.00    | 70.0                            | 56.0    | 4.5                                             |
| 1979-1983                                    | 3.40                         | 2.00    | 70.0                            | 56.0    | 4.5                                             |
| 1975-1978                                    | 4.00                         | 2.50    | 80.0                            | 64.0    | 6.0                                             |
| 1973-1974                                    | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                             |
| 1968-1972                                    | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                             |

(d) *Heavy-Duty Vehicles with GVWR of 8,501 to 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile)<br>Composite |
|----------------|------------------------------|---------|---------------------------------|---------|-------------------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 |                                                 |
| 1998 and newer | 2.00                         | 1.25    | 30.0                            | 24.0    | 4.0                                             |
| 1991-1997      | 2.00                         | 1.25    | 40.0                            | 32.0    | 5.0                                             |
| 1987-1990      | 2.00                         | 1.25    | 40.0                            | 32.0    | 6.0                                             |
| 1985-1986      | 5.00                         | 3.10    | 80.0                            | 64.0    | 8.0                                             |
| 1979-1984      | 7.50                         | 5.00    | 100                             | 80.0    | 8.0                                             |
| 1974-1978      | 10.0                         | 6.00    | 150                             | 120     | 10.0                                            |
| 1970-1973      | 10.0                         | 6.00    | 175                             | 140     | 10.0                                            |
| 1968-1969      | 20.0                         | 12.5    | 200                             | 160     | 15.0                                            |

(e) *Heavy-Duty Vehicles with GVWR greater than 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile)<br>Composite |
|----------------|------------------------------|---------|---------------------------------|---------|-------------------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 |                                                 |
| 1998 and newer | 3.50                         | 2.00    | 60.0                            | 48.0    | 7.0                                             |
| 1991-1997      | 3.50                         | 2.00    | 70.0                            | 56.0    | 9.0                                             |
| 1987-1990      | 3.50                         | 2.00    | 70.0                            | 56.0    | 11.0                                            |
| 1985-1986      | 10.0                         | 6.00    | 150                             | 120     | 16.0                                            |
| 1979-1984      | 11.5                         | 7.00    | 150                             | 120     | 16.0                                            |
| 1974-1978      | 13.0                         | 8.00    | 150                             | 120     | 20.0                                            |
| 1970-1973      | 13.0                         | 8.00    | 175                             | 140     | 20.0                                            |
| 1968-1969      | 24.0                         | 15.0    | 200                             | 160     | 30.0                                            |

**(5) MOTOR VEHICLES INSPECTED ON AND AFTER APRIL 1, 2006. (a) *Light-Duty Vehicles.***

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile)<br>Composite |
|----------------|------------------------------|---------|---------------------------------|---------|-------------------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 |                                                 |
| 1996 and newer | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                             |
| 1987-1995      | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                             |
| 1983-1986      | 2.00                         | 1.25    | 30.0                            | 24.0    | 3.0                                             |
| 1981-1982      | 2.00                         | 1.25    | 60.0                            | 48.0    | 3.0                                             |
| 1980           | 2.00                         | 1.25    | 60.0                            | 48.0    | 5.0                                             |
| 1977-1979      | 3.00                         | 2.00    | 65.0                            | 52.0    | 5.0                                             |
| 1975-1976      | 3.00                         | 2.00    | 65.0                            | 52.0    | 6.0                                             |
| 1973-1974      | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                             |
| 1968-1972      | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                             |



**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

(b) *Light-Duty Trucks with GVWR of 6,000 pounds or less.*

| Model Years      | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                  | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1996 and newer   |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) | 0.60                         | 0.40    | 10.0                            | 8.0     | 1.5                                |
| (>3750 lbs LVW)  | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| 1988-1995        |                              |         |                                 |         |                                    |
| (≤ 3750 lbs LVW) | 1.60                         | 1.00    | 40.0                            | 32.0    | 2.5                                |
| (>3750 lbs LVW)  | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                |
| 1987             | 1.60                         | 1.00    | 40.0                            | 32.0    | 5.5                                |
| 1984-1986        | 3.20                         | 2.00    | 70.0                            | 56.0    | 5.5                                |
| 1979-1983        | 3.40                         | 2.00    | 70.0                            | 56.0    | 5.5                                |
| 1975-1978        | 4.00                         | 2.50    | 80.0                            | 64.0    | 6.0                                |
| 1973-1974        | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                |
| 1968-1972        | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                |

(c) *Light-Duty Trucks with GVWR of 6,001 to 8,500 pounds and Heavy-Duty Vehicles with GVWR of 8,500 pounds or less.*

| Model Years       | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                   | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1997 and newer    |                              |         |                                 |         |                                    |
| (≤ 5750 lbs ALVW) | 0.80                         | 0.50    | 13.0                            | 10.0    | 1.8                                |
| (>5750 lbs ALVW)  | 0.80                         | 0.50    | 15.0                            | 12.0    | 2.0                                |
| 1990-1996         | 1.60                         | 1.00    | 40.0                            | 32.0    | 3.5                                |
| 1987-1989         | 1.60                         | 1.00    | 40.0                            | 32.0    | 5.5                                |
| 1984-1986         | 3.20                         | 2.00    | 70.0                            | 56.0    | 5.5                                |
| 1979-1983         | 3.40                         | 2.00    | 70.0                            | 56.0    | 5.5                                |
| 1975-1978         | 4.00                         | 2.50    | 80.0                            | 64.0    | 6.0                                |
| 1973-1974         | 7.00                         | 4.50    | 120                             | 96.0    | 6.0                                |
| 1968-1972         | 7.00                         | 4.50    | 120                             | 96.0    | 7.0                                |

(d) *Heavy-Duty Vehicles with GVWR of 8,501 to 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 2005 and newer | 1.00                         | 0.63    | 30.0                            | 24.0    | 3.0                                |
| 1998-2004      | 2.00                         | 1.25    | 30.0                            | 24.0    | 7.0                                |
| 1991-1997      | 2.00                         | 1.25    | 40.0                            | 32.0    | 9.0                                |
| 1987-1990      | 2.00                         | 1.25    | 40.0                            | 32.0    | 11.0                               |
| 1985-1986      | 5.00                         | 3.10    | 80.0                            | 64.0    | 16.0                               |
| 1979-1984      | 7.50                         | 5.00    | 100                             | 80.0    | 16.0                               |
| 1974-1978      | 10.0                         | 6.00    | 150                             | 120     | 20.0                               |
| 1970-1973      | 10.0                         | 6.00    | 175                             | 140     | 20.0                               |
| 1968-1969      | 20.0                         | 12.5    | 200                             | 160     | 30.0                               |

(e) *Heavy-Duty Vehicles with GVWR greater than 10,000 pounds.*

| Model Years    | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|----------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|                | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 2005 and newer | 1.00                         | 0.63    | 60.0                            | 48.0    | 3.0                                |
| 1998-2004      | 3.50                         | 2.00    | 60.0                            | 48.0    | 7.0                                |
| 1991-1997      | 3.50                         | 2.00    | 70.0                            | 56.0    | 9.0                                |
| 1987-1990      | 3.50                         | 2.00    | 70.0                            | 56.0    | 11.0                               |
| 1985-1986      | 10.0                         | 6.00    | 150                             | 120     | 16.0                               |

**Table 1 (continued)**  
**Emission Limitations For The Transient Emission Test**

| Model Years | Hydrocarbons<br>(grams/mile) |         | Carbon Monoxide<br>(grams/mile) |         | Oxides of Nitrogen<br>(grams/mile) |
|-------------|------------------------------|---------|---------------------------------|---------|------------------------------------|
|             | Composite                    | Phase 2 | Composite                       | Phase 2 | Composite                          |
| 1979-1984   | 11.5                         | 7.00    | 150                             | 120     | 16.0                               |
| 1974-1978   | 13.0                         | 8.00    | 150                             | 120     | 20.0                               |
| 1970-1973   | 13.0                         | 8.00    | 175                             | 140     | 20.0                               |
| 1968-1969   | 24.0                         | 15.0    | 200                             | 160     | 30.0                               |

<sup>1</sup>Upon written department approval granted to DOT, the emission limitations for "Not Tier 1" may be applied to all 1994-1995 model year light-duty vehicles. (Note: On January 7, 1998, the department issued to DOT written approval for this use of the "Not Tier 1" emission limitations until November 30, 1999.)

<sup>2</sup>Upon written department approval granted to DOT, the emission limitations for ">3750 lbs LVW" may be applied to all 1996 model year and newer light-duty trucks with GVWR of 6,000 pounds or less.

<sup>3</sup>Upon written department approval granted to DOT, the emission limitations for "Not Tier 1" may be applied to all 1994-1995 model year light-duty trucks with GVWR of 6,000 pounds or less. (Note: On January 7, 1998, the department issued to DOT written approval for this use of the "Not Tier 1" emission limitations until November 30, 1999.)

<sup>4</sup>Upon written department approval granted to DOT, the emission limitations for ">3750 lbs LVW" may be applied to all 1994-1995 model year light-duty trucks with GVWR of 6,000 pounds or less which are certified to meet Tier 1 emission standards.

<sup>5</sup>Upon written department approval granted to DOT, the emission limitations for ">5750 lbs ALVW" may be applied to all 1997 model year and newer light-duty trucks with GVWR of 6,001 to 8,500 pounds and to all 1997 model year and newer heavy-duty vehicles with GVWR of 8,500 pounds or less.

<sup>6</sup>Upon written department approval granted to DOT, the emission limitations for "Not Tier 1" may be applied to all 1996 model year light-duty trucks with GVWR of 6,001 to 8,500 pounds and to all 1996 model year heavy-duty vehicles with GVWR of 8,500 pounds or less. (Note: On January 7, 1998, the department issued to DOT written approval for this use of the "Not Tier 1" emission limitations until November 30, 1999.)

<sup>7</sup>Upon written department approval granted to DOT, the emission limitations for ">5750 lbs ALVW" may be applied to all 1996 model year light-duty trucks with GVWR of 6,001 to 8,500 pounds which are certified to meet Tier 1 emission standards and to all 1996 model year heavy-duty vehicles with GVWR of 8,500 pounds or less which are certified to meet Tier 1 emission standards.

**Table 3**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

**(1) HYDROCARBON EXHAUST EMISSIONS.**

(a) *Motor vehicles having composite hydrocarbon emission limitations in Table 1 of at least 0.60 grams/mile but less than 0.80 grams/mile.*

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.093             | N/A             | 56     | 0.189             | N/A             |
| 31     | 0.095             | N/A             | 57     | 0.196             | N/A             |
| 32     | 0.097             | N/A             | 58     | 0.203             | N/A             |
| 33     | 0.101             | N/A             | 59     | 0.207             | N/A             |
| 34     | 0.105             | N/A             | 60     | 0.209             | N/A             |
| 35     | 0.110             | N/A             | 61     | 0.210             | N/A             |
| 36     | 0.113             | N/A             | 62     | 0.212             | N/A             |
| 37     | 0.115             | N/A             | 63     | 0.212             | N/A             |
| 38     | 0.117             | N/A             | 64     | 0.213             | N/A             |
| 39     | 0.120             | N/A             | 65     | 0.214             | N/A             |
| 40     | 0.124             | N/A             | 66     | 0.215             | N/A             |
| 41     | 0.127             | N/A             | 67     | 0.216             | N/A             |
| 42     | 0.129             | N/A             | 68     | 0.218             | N/A             |
| 43     | 0.130             | N/A             | 69     | 0.221             | N/A             |
| 44     | 0.133             | N/A             | 70     | 0.222             | N/A             |
| 45     | 0.148             | N/A             | 71     | 0.224             | N/A             |
| 46     | 0.150             | N/A             | 72     | 0.225             | N/A             |
| 47     | 0.156             | N/A             | 73     | 0.227             | N/A             |
| 48     | 0.166             | N/A             | 74     | 0.228             | N/A             |
| 49     | 0.174             | N/A             | 75     | 0.230             | N/A             |
| 50     | 0.176             | N/A             | 76     | 0.231             | N/A             |
| 51     | 0.179             | N/A             | 77     | 0.231             | N/A             |
| 52     | 0.180             | N/A             | 78     | 0.231             | N/A             |
| 53     | 0.182             | N/A             | 79     | 0.236             | N/A             |
| 54     | 0.185             | N/A             | 80     | 0.240             | N/A             |
| 55     | 0.187             | N/A             | 81     | 0.243             | N/A             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 82     | 0.245             | N/A             | 145    | 0.513             | 0.053           |
| 83     | 0.247             | N/A             | 146    | 0.515             | 0.053           |
| 84     | 0.250             | N/A             | 147    | 0.516             | 0.054           |
| 85     | 0.252             | N/A             | 148    | 0.518             | 0.055           |
| 86     | 0.254             | N/A             | 149    | 0.519             | 0.056           |
| 87     | 0.257             | N/A             | 150    | 0.521             | 0.057           |
| 88     | 0.260             | N/A             | 151    | 0.522             | 0.058           |
| 89     | 0.263             | N/A             | 152    | 0.524             | 0.058           |
| 90     | 0.267             | N/A             | 153    | 0.525             | 0.059           |
| 91     | 0.269             | N/A             | 154    | 0.527             | 0.059           |
| 92     | 0.270             | N/A             | 155    | 0.528             | 0.060           |
| 93     | 0.272             | N/A             | 156    | 0.530             | 0.062           |
| 94     | 0.275             | N/A             | 157    | 0.531             | 0.064           |
| 95     | 0.278             | N/A             | 158    | 0.533             | 0.066           |
| 96     | 0.279             | N/A             | 159    | 0.534             | 0.066           |
| 97     | 0.282             | N/A             | 160    | 0.537             | 0.070           |
| 98     | 0.291             | N/A             | 161    | 0.563             | 0.077           |
| 99     | 0.297             | N/A             | 162    | 0.588             | 0.087           |
| 100    | 0.304             | N/A             | 163    | 0.604             | 0.093           |
| 101    | 0.308             | N/A             | 164    | 0.630             | 0.099           |
| 102    | 0.308             | N/A             | 165    | 0.640             | 0.103           |
| 103    | 0.309             | N/A             | 166    | 0.656             | 0.129           |
| 104    | 0.310             | N/A             | 167    | 0.677             | 0.151           |
| 105    | 0.316             | N/A             | 168    | 0.683             | 0.153           |
| 106    | 0.321             | N/A             | 169    | 0.686             | 0.162           |
| 107    | 0.323             | N/A             | 170    | 0.687             | 0.178           |
| 108    | 0.341             | N/A             | 171    | 0.689             | 0.191           |
| 109    | 0.344             | 0.012           | 172    | 0.698             | 0.200           |
| 110    | 0.347             | 0.014           | 173    | 0.711             | 0.208           |
| 111    | 0.348             | 0.017           | 174    | 0.737             | 0.216           |
| 112    | 0.350             | 0.019           | 175    | 0.764             | 0.229           |
| 113    | 0.351             | 0.019           | 176    | 0.770             | 0.239           |
| 114    | 0.353             | 0.020           | 177    | 0.776             | 0.253           |
| 115    | 0.366             | 0.021           | 178    | 0.788             | 0.258           |
| 116    | 0.385             | 0.023           | 179    | 0.806             | 0.262           |
| 117    | 0.404             | 0.026           | 180    | 0.813             | 0.273           |
| 118    | 0.421             | 0.028           | 181    | 0.824             | 0.280           |
| 119    | 0.433             | 0.028           | 182    | 0.841             | 0.284           |
| 120    | 0.435             | 0.029           | 183    | 0.849             | 0.291           |
| 121    | 0.440             | 0.031           | 184    | 0.864             | 0.314           |
| 122    | 0.446             | 0.032           | 185    | 0.871             | 0.322           |
| 123    | 0.452             | 0.033           | 186    | 0.876             | 0.324           |
| 124    | 0.458             | 0.034           | 187    | 0.881             | 0.326           |
| 125    | 0.461             | 0.034           | 188    | 0.886             | 0.328           |
| 126    | 0.468             | 0.034           | 189    | 0.891             | 0.339           |
| 127    | 0.471             | 0.036           | 190    | 0.902             | 0.348           |
| 128    | 0.474             | 0.037           | 191    | 0.914             | 0.358           |
| 129    | 0.478             | 0.037           | 192    | 0.925             | 0.370           |
| 130    | 0.481             | 0.040           | 193    | 0.938             | 0.383           |
| 131    | 0.482             | 0.041           | 194    | 0.941             | 0.395           |
| 132    | 0.483             | 0.042           | 195    | 0.944             | 0.406           |
| 133    | 0.484             | 0.044           | 196    | 0.949             | 0.413           |
| 134    | 0.485             | 0.044           | 197    | 0.960             | 0.415           |
| 135    | 0.488             | 0.044           | 198    | 0.970             | 0.416           |
| 136    | 0.494             | 0.045           | 199    | 0.976             | 0.418           |
| 137    | 0.497             | 0.045           | 200    | 0.985             | 0.420           |
| 138    | 0.500             | 0.045           | 201    | 0.993             | 0.427           |
| 139    | 0.501             | 0.048           | 202    | 0.999             | 0.438           |
| 140    | 0.503             | 0.049           | 203    | 1.006             | 0.443           |
| 141    | 0.504             | 0.049           | 204    | 1.018             | 0.448           |
| 142    | 0.506             | 0.049           | 205    | 1.031             | 0.453           |
| 143    | 0.509             | 0.051           | 206    | 1.044             | 0.456           |
| 144    | 0.511             | 0.052           | 207    | 1.056             | 0.459           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 208    | 1.067             | 0.463           | 224    | 1.160             | 0.547           |
| 209    | 1.075             | 0.466           | 225    | 1.162             | 0.554           |
| 210    | 1.082             | 0.469           | 226    | 1.172             | 0.562           |
| 211    | 1.090             | 0.482           | 227    | 1.181             | 0.568           |
| 212    | 1.097             | 0.490           | 228    | 1.184             | 0.569           |
| 213    | 1.101             | 0.497           | 229    | 1.188             | 0.574           |
| 214    | 1.103             | 0.504           | 230    | 1.192             | 0.574           |
| 215    | 1.106             | 0.508           | 231    | 1.193             | 0.574           |
| 216    | 1.109             | 0.517           | 232    | 1.197             | 0.575           |
| 217    | 1.111             | 0.521           | 233    | 1.199             | 0.575           |
| 218    | 1.113             | 0.521           | 234    | 1.203             | 0.576           |
| 219    | 1.115             | 0.523           | 235    | 1.208             | 0.577           |
| 220    | 1.118             | 0.527           | 236    | 1.209             | 0.577           |
| 221    | 1.120             | 0.531           | 237    | 1.210             | 0.577           |
| 222    | 1.128             | 0.537           | 238    | 1.211             | 0.578           |
| 223    | 1.142             | 0.544           | 239    | 1.211             | 0.580           |

(b) Motor vehicles having composite hydrocarbon emission limitations in Table 1 of at least 0.80 grams/mile but less than 1.25 grams/mile.

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.124             | N/A             | 75     | 0.307             | N/A             |
| 31     | 0.126             | N/A             | 76     | 0.308             | N/A             |
| 32     | 0.129             | N/A             | 77     | 0.308             | N/A             |
| 33     | 0.135             | N/A             | 78     | 0.308             | N/A             |
| 34     | 0.140             | N/A             | 79     | 0.314             | N/A             |
| 35     | 0.146             | N/A             | 80     | 0.320             | N/A             |
| 36     | 0.150             | N/A             | 81     | 0.324             | N/A             |
| 37     | 0.153             | N/A             | 82     | 0.327             | N/A             |
| 38     | 0.156             | N/A             | 83     | 0.329             | N/A             |
| 39     | 0.160             | N/A             | 84     | 0.333             | N/A             |
| 40     | 0.165             | N/A             | 85     | 0.336             | N/A             |
| 41     | 0.169             | N/A             | 86     | 0.339             | N/A             |
| 42     | 0.172             | N/A             | 87     | 0.343             | N/A             |
| 43     | 0.173             | N/A             | 88     | 0.347             | N/A             |
| 44     | 0.177             | N/A             | 89     | 0.350             | N/A             |
| 45     | 0.197             | N/A             | 90     | 0.356             | N/A             |
| 46     | 0.200             | N/A             | 91     | 0.358             | N/A             |
| 47     | 0.208             | N/A             | 92     | 0.360             | N/A             |
| 48     | 0.221             | N/A             | 93     | 0.363             | N/A             |
| 49     | 0.232             | N/A             | 94     | 0.367             | 0.000           |
| 50     | 0.235             | N/A             | 95     | 0.370             | 0.000           |
| 51     | 0.238             | N/A             | 96     | 0.372             | 0.000           |
| 52     | 0.240             | N/A             | 97     | 0.376             | 0.000           |
| 53     | 0.242             | N/A             | 98     | 0.388             | 0.000           |
| 54     | 0.246             | N/A             | 99     | 0.396             | 0.000           |
| 55     | 0.249             | N/A             | 100    | 0.405             | 0.001           |
| 56     | 0.252             | N/A             | 101    | 0.410             | 0.002           |
| 57     | 0.261             | N/A             | 102    | 0.411             | 0.003           |
| 58     | 0.271             | N/A             | 103    | 0.412             | 0.006           |
| 59     | 0.276             | N/A             | 104    | 0.413             | 0.007           |
| 60     | 0.278             | N/A             | 105    | 0.421             | 0.008           |
| 61     | 0.280             | N/A             | 106    | 0.428             | 0.009           |
| 62     | 0.282             | N/A             | 107    | 0.430             | 0.010           |
| 63     | 0.283             | N/A             | 108    | 0.455             | 0.013           |
| 64     | 0.284             | N/A             | 109    | 0.459             | 0.015           |
| 65     | 0.285             | N/A             | 110    | 0.462             | 0.017           |
| 66     | 0.286             | N/A             | 111    | 0.464             | 0.021           |
| 67     | 0.288             | N/A             | 112    | 0.466             | 0.024           |
| 68     | 0.291             | N/A             | 113    | 0.468             | 0.024           |
| 69     | 0.294             | N/A             | 114    | 0.471             | 0.025           |
| 70     | 0.296             | N/A             | 115    | 0.488             | 0.026           |
| 71     | 0.298             | N/A             | 116    | 0.513             | 0.029           |
| 72     | 0.300             | N/A             | 117    | 0.538             | 0.032           |
| 73     | 0.302             | N/A             | 118    | 0.561             | 0.035           |
| 74     | 0.304             | N/A             | 119    | 0.577             | 0.035           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| <b>Second</b> | <b>Composite (grams)</b> | <b>Phase 2 (grams)</b> | <b>Second</b> | <b>Composite (grams)</b> | <b>Phase 2 (grams)</b> |
|---------------|--------------------------|------------------------|---------------|--------------------------|------------------------|
| 120           | 0.580                    | 0.036                  | 180           | 1.084                    | 0.337                  |
| 121           | 0.586                    | 0.038                  | 181           | 1.099                    | 0.345                  |
| 122           | 0.594                    | 0.040                  | 182           | 1.121                    | 0.350                  |
| 123           | 0.603                    | 0.041                  | 183           | 1.132                    | 0.359                  |
| 124           | 0.610                    | 0.042                  | 184           | 1.152                    | 0.387                  |
| 125           | 0.615                    | 0.042                  | 185           | 1.161                    | 0.398                  |
| 126           | 0.624                    | 0.042                  | 186           | 1.168                    | 0.400                  |
| 127           | 0.628                    | 0.045                  | 187           | 1.175                    | 0.402                  |
| 128           | 0.632                    | 0.046                  | 188           | 1.181                    | 0.405                  |
| 129           | 0.637                    | 0.046                  | 189           | 1.188                    | 0.418                  |
| 130           | 0.641                    | 0.049                  | 190           | 1.203                    | 0.429                  |
| 131           | 0.643                    | 0.050                  | 191           | 1.219                    | 0.442                  |
| 132           | 0.644                    | 0.052                  | 192           | 1.233                    | 0.457                  |
| 133           | 0.645                    | 0.054                  | 193           | 1.251                    | 0.473                  |
| 134           | 0.647                    | 0.054                  | 194           | 1.255                    | 0.487                  |
| 135           | 0.651                    | 0.054                  | 195           | 1.258                    | 0.501                  |
| 136           | 0.658                    | 0.055                  | 196           | 1.265                    | 0.510                  |
| 137           | 0.663                    | 0.055                  | 197           | 1.280                    | 0.512                  |
| 138           | 0.666                    | 0.056                  | 198           | 1.293                    | 0.514                  |
| 139           | 0.668                    | 0.059                  | 199           | 1.301                    | 0.516                  |
| 140           | 0.670                    | 0.061                  | 200           | 1.313                    | 0.518                  |
| 141           | 0.672                    | 0.061                  | 201           | 1.324                    | 0.527                  |
| 142           | 0.675                    | 0.061                  | 202           | 1.332                    | 0.540                  |
| 143           | 0.678                    | 0.063                  | 203           | 1.341                    | 0.547                  |
| 144           | 0.681                    | 0.064                  | 204           | 1.357                    | 0.553                  |
| 145           | 0.684                    | 0.065                  | 205           | 1.375                    | 0.559                  |
| 146           | 0.686                    | 0.066                  | 206           | 1.392                    | 0.563                  |
| 147           | 0.688                    | 0.067                  | 207           | 1.408                    | 0.567                  |
| 148           | 0.690                    | 0.068                  | 208           | 1.422                    | 0.571                  |
| 149           | 0.692                    | 0.069                  | 209           | 1.433                    | 0.575                  |
| 150           | 0.694                    | 0.070                  | 210           | 1.443                    | 0.579                  |
| 151           | 0.696                    | 0.071                  | 211           | 1.453                    | 0.595                  |
| 152           | 0.698                    | 0.072                  | 212           | 1.463                    | 0.605                  |
| 153           | 0.700                    | 0.073                  | 213           | 1.468                    | 0.614                  |
| 154           | 0.702                    | 0.073                  | 214           | 1.470                    | 0.622                  |
| 155           | 0.704                    | 0.074                  | 215           | 1.474                    | 0.627                  |
| 156           | 0.706                    | 0.077                  | 216           | 1.478                    | 0.638                  |
| 157           | 0.708                    | 0.079                  | 217           | 1.481                    | 0.643                  |
| 158           | 0.710                    | 0.082                  | 218           | 1.484                    | 0.643                  |
| 159           | 0.712                    | 0.082                  | 219           | 1.487                    | 0.645                  |
| 160           | 0.716                    | 0.086                  | 220           | 1.490                    | 0.651                  |
| 161           | 0.750                    | 0.095                  | 221           | 1.493                    | 0.655                  |
| 162           | 0.784                    | 0.107                  | 222           | 1.504                    | 0.663                  |
| 163           | 0.805                    | 0.115                  | 223           | 1.522                    | 0.671                  |
| 164           | 0.840                    | 0.122                  | 224           | 1.547                    | 0.675                  |
| 165           | 0.853                    | 0.127                  | 225           | 1.549                    | 0.684                  |
| 166           | 0.874                    | 0.159                  | 226           | 1.562                    | 0.694                  |
| 167           | 0.903                    | 0.186                  | 227           | 1.574                    | 0.701                  |
| 168           | 0.910                    | 0.189                  | 228           | 1.579                    | 0.702                  |
| 169           | 0.914                    | 0.200                  | 229           | 1.584                    | 0.708                  |
| 170           | 0.916                    | 0.220                  | 230           | 1.589                    | 0.708                  |
| 171           | 0.919                    | 0.236                  | 231           | 1.590                    | 0.709                  |
| 172           | 0.931                    | 0.247                  | 232           | 1.596                    | 0.710                  |
| 173           | 0.948                    | 0.257                  | 233           | 1.598                    | 0.710                  |
| 174           | 0.983                    | 0.267                  | 234           | 1.604                    | 0.711                  |
| 175           | 1.018                    | 0.283                  | 235           | 1.610                    | 0.712                  |
| 176           | 1.027                    | 0.295                  | 236           | 1.612                    | 0.712                  |
| 177           | 1.035                    | 0.312                  | 237           | 1.613                    | 0.712                  |
| 178           | 1.051                    | 0.318                  | 238           | 1.614                    | 0.713                  |
| 179           | 1.074                    | 0.323                  | 239           | 1.615                    | 0.716                  |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

(c) Motor vehicles having composite hydrocarbon emission limitations in Table 1 of at least 1.25 grams/mile but less than 2.00 grams/mile.

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.247             | N/A             | 92     | 0.729             | N/A             |
| 31     | 0.253             | N/A             | 93     | 0.731             | N/A             |
| 32     | 0.258             | N/A             | 94     | 0.734             | 0.000           |
| 33     | 0.263             | N/A             | 95     | 0.740             | 0.000           |
| 34     | 0.268             | N/A             | 96     | 0.748             | 0.001           |
| 35     | 0.277             | N/A             | 97     | 0.759             | 0.001           |
| 36     | 0.283             | N/A             | 98     | 0.771             | 0.002           |
| 37     | 0.293             | N/A             | 99     | 0.783             | 0.003           |
| 38     | 0.297             | N/A             | 100    | 0.793             | 0.005           |
| 39     | 0.298             | N/A             | 101    | 0.810             | 0.007           |
| 40     | 0.313             | N/A             | 102    | 0.823             | 0.009           |
| 41     | 0.320             | N/A             | 103    | 0.836             | 0.011           |
| 42     | 0.327             | N/A             | 104    | 0.853             | 0.016           |
| 43     | 0.342             | N/A             | 105    | 0.871             | 0.017           |
| 44     | 0.360             | N/A             | 106    | 0.887             | 0.022           |
| 45     | 0.376             | N/A             | 107    | 0.899             | 0.029           |
| 46     | 0.389             | N/A             | 108    | 0.931             | 0.036           |
| 47     | 0.408             | N/A             | 109    | 0.947             | 0.040           |
| 48     | 0.423             | N/A             | 110    | 0.957             | 0.047           |
| 49     | 0.434             | N/A             | 111    | 0.965             | 0.052           |
| 50     | 0.444             | N/A             | 112    | 0.971             | 0.056           |
| 51     | 0.454             | N/A             | 113    | 0.977             | 0.061           |
| 52     | 0.465             | N/A             | 114    | 0.983             | 0.064           |
| 53     | 0.472             | N/A             | 115    | 1.003             | 0.072           |
| 54     | 0.478             | N/A             | 116    | 1.030             | 0.081           |
| 55     | 0.485             | N/A             | 117    | 1.041             | 0.082           |
| 56     | 0.493             | N/A             | 118    | 1.050             | 0.083           |
| 57     | 0.500             | N/A             | 119    | 1.052             | 0.092           |
| 58     | 0.505             | N/A             | 120    | 1.055             | 0.094           |
| 59     | 0.514             | N/A             | 121    | 1.061             | 0.097           |
| 60     | 0.537             | N/A             | 122    | 1.071             | 0.100           |
| 61     | 0.540             | N/A             | 123    | 1.081             | 0.103           |
| 62     | 0.543             | N/A             | 124    | 1.091             | 0.106           |
| 63     | 0.546             | N/A             | 125    | 1.102             | 0.108           |
| 64     | 0.551             | N/A             | 126    | 1.110             | 0.110           |
| 65     | 0.559             | N/A             | 127    | 1.116             | 0.112           |
| 66     | 0.567             | N/A             | 128    | 1.121             | 0.114           |
| 67     | 0.575             | N/A             | 129    | 1.125             | 0.116           |
| 68     | 0.588             | N/A             | 130    | 1.128             | 0.118           |
| 69     | 0.595             | N/A             | 131    | 1.130             | 0.120           |
| 70     | 0.601             | N/A             | 132    | 1.132             | 0.122           |
| 71     | 0.606             | N/A             | 133    | 1.134             | 0.123           |
| 72     | 0.610             | N/A             | 134    | 1.135             | 0.124           |
| 73     | 0.617             | N/A             | 135    | 1.143             | 0.127           |
| 74     | 0.631             | N/A             | 136    | 1.147             | 0.130           |
| 75     | 0.643             | N/A             | 137    | 1.156             | 0.134           |
| 76     | 0.651             | N/A             | 138    | 1.163             | 0.139           |
| 77     | 0.659             | N/A             | 139    | 1.186             | 0.146           |
| 78     | 0.667             | N/A             | 140    | 1.253             | 0.149           |
| 79     | 0.676             | N/A             | 141    | 1.262             | 0.151           |
| 80     | 0.681             | N/A             | 142    | 1.271             | 0.153           |
| 81     | 0.685             | N/A             | 143    | 1.277             | 0.155           |
| 82     | 0.689             | N/A             | 144    | 1.283             | 0.157           |
| 83     | 0.694             | N/A             | 145    | 1.291             | 0.162           |
| 84     | 0.700             | N/A             | 146    | 1.294             | 0.164           |
| 85     | 0.705             | N/A             | 147    | 1.296             | 0.166           |
| 86     | 0.709             | N/A             | 148    | 1.298             | 0.168           |
| 87     | 0.713             | N/A             | 149    | 1.303             | 0.169           |
| 88     | 0.717             | N/A             | 150    | 1.316             | 0.170           |
| 89     | 0.721             | N/A             | 151    | 1.330             | 0.171           |
| 90     | 0.724             | N/A             | 152    | 1.342             | 0.172           |
| 91     | 0.727             | N/A             | 153    | 1.348             | 0.173           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 154    | 1.353             | 0.175           | 197    | 2.079             | 0.709           |
| 155    | 1.362             | 0.178           | 198    | 2.094             | 0.725           |
| 156    | 1.365             | 0.180           | 199    | 2.109             | 0.740           |
| 157    | 1.366             | 0.189           | 200    | 2.122             | 0.754           |
| 158    | 1.373             | 0.198           | 201    | 2.130             | 0.767           |
| 159    | 1.397             | 0.203           | 202    | 2.137             | 0.775           |
| 160    | 1.423             | 0.207           | 203    | 2.157             | 0.787           |
| 161    | 1.440             | 0.214           | 204    | 2.172             | 0.795           |
| 162    | 1.452             | 0.221           | 205    | 2.194             | 0.803           |
| 163    | 1.465             | 0.229           | 206    | 2.222             | 0.854           |
| 164    | 1.509             | 0.247           | 207    | 2.245             | 0.859           |
| 165    | 1.533             | 0.274           | 208    | 2.268             | 0.872           |
| 166    | 1.555             | 0.309           | 209    | 2.279             | 0.892           |
| 167    | 1.576             | 0.318           | 210    | 2.288             | 0.896           |
| 168    | 1.598             | 0.322           | 211    | 2.301             | 0.903           |
| 169    | 1.618             | 0.333           | 212    | 2.316             | 0.924           |
| 170    | 1.636             | 0.343           | 213    | 2.332             | 0.938           |
| 171    | 1.666             | 0.356           | 214    | 2.345             | 0.941           |
| 172    | 1.685             | 0.385           | 215    | 2.354             | 0.951           |
| 173    | 1.726             | 0.409           | 216    | 2.362             | 0.966           |
| 174    | 1.742             | 0.433           | 217    | 2.368             | 0.979           |
| 175    | 1.756             | 0.453           | 218    | 2.376             | 0.980           |
| 176    | 1.769             | 0.463           | 219    | 2.384             | 0.981           |
| 177    | 1.784             | 0.507           | 220    | 2.391             | 1.005           |
| 178    | 1.802             | 0.523           | 221    | 2.395             | 1.016           |
| 179    | 1.822             | 0.528           | 222    | 2.400             | 1.022           |
| 180    | 1.843             | 0.541           | 223    | 2.405             | 1.028           |
| 181    | 1.864             | 0.549           | 224    | 2.409             | 1.035           |
| 182    | 1.884             | 0.559           | 225    | 2.413             | 1.041           |
| 183    | 1.896             | 0.571           | 226    | 2.417             | 1.045           |
| 184    | 1.915             | 0.584           | 227    | 2.426             | 1.051           |
| 185    | 1.940             | 0.598           | 228    | 2.428             | 1.055           |
| 186    | 1.958             | 0.613           | 229    | 2.431             | 1.059           |
| 187    | 1.972             | 0.624           | 230    | 2.433             | 1.064           |
| 188    | 1.985             | 0.629           | 231    | 2.441             | 1.069           |
| 189    | 1.991             | 0.629           | 232    | 2.461             | 1.071           |
| 190    | 1.993             | 0.638           | 233    | 2.476             | 1.072           |
| 191    | 1.995             | 0.648           | 234    | 2.488             | 1.073           |
| 192    | 2.001             | 0.659           | 235    | 2.498             | 1.081           |
| 193    | 2.015             | 0.663           | 236    | 2.508             | 1.083           |
| 194    | 2.031             | 0.671           | 237    | 2.516             | 1.084           |
| 195    | 2.047             | 0.681           | 238    | 2.520             | 1.085           |
| 196    | 2.063             | 0.693           | 239    | 2.523             | 1.086           |

(d) *Motor vehicles having composite hydrocarbon emission limitations in Table 1 of 2.00 grams/mile or greater.*

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.407             | N/A             | 49     | 0.679             | N/A             |
| 31     | 0.415             | N/A             | 50     | 0.696             | N/A             |
| 32     | 0.423             | N/A             | 51     | 0.712             | N/A             |
| 33     | 0.436             | N/A             | 52     | 0.727             | N/A             |
| 34     | 0.451             | N/A             | 53     | 0.745             | N/A             |
| 35     | 0.464             | N/A             | 54     | 0.760             | N/A             |
| 36     | 0.468             | N/A             | 55     | 0.776             | N/A             |
| 37     | 0.475             | N/A             | 56     | 0.797             | N/A             |
| 38     | 0.487             | N/A             | 57     | 0.814             | N/A             |
| 39     | 0.506             | N/A             | 58     | 0.826             | N/A             |
| 40     | 0.530             | N/A             | 59     | 0.837             | N/A             |
| 41     | 0.549             | N/A             | 60     | 0.849             | N/A             |
| 42     | 0.569             | N/A             | 61     | 0.862             | N/A             |
| 43     | 0.588             | N/A             | 62     | 0.872             | N/A             |
| 44     | 0.609             | N/A             | 63     | 0.887             | N/A             |
| 45     | 0.621             | N/A             | 64     | 0.895             | N/A             |
| 46     | 0.636             | N/A             | 65     | 0.903             | N/A             |
| 47     | 0.649             | N/A             | 66     | 0.925             | N/A             |
| 48     | 0.666             | N/A             | 67     | 0.933             | N/A             |



**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 68     | 0.945             | N/A             | 132    | 1.854             | 0.356           |
| 69     | 0.959             | N/A             | 133    | 1.862             | 0.357           |
| 70     | 0.970             | N/A             | 134    | 1.870             | 0.359           |
| 71     | 0.980             | N/A             | 135    | 1.883             | 0.362           |
| 72     | 0.988             | N/A             | 136    | 1.888             | 0.364           |
| 73     | 0.997             | N/A             | 137    | 1.896             | 0.368           |
| 74     | 1.022             | N/A             | 138    | 1.911             | 0.378           |
| 75     | 1.037             | N/A             | 139    | 1.928             | 0.391           |
| 76     | 1.051             | N/A             | 140    | 1.949             | 0.402           |
| 77     | 1.064             | N/A             | 141    | 1.969             | 0.408           |
| 78     | 1.075             | N/A             | 142    | 1.982             | 0.422           |
| 79     | 1.087             | N/A             | 143    | 1.999             | 0.428           |
| 80     | 1.097             | N/A             | 144    | 2.011             | 0.432           |
| 81     | 1.105             | N/A             | 145    | 2.022             | 0.434           |
| 82     | 1.114             | N/A             | 146    | 2.035             | 0.439           |
| 83     | 1.136             | N/A             | 147    | 2.043             | 0.450           |
| 84     | 1.160             | N/A             | 148    | 2.049             | 0.460           |
| 85     | 1.182             | N/A             | 149    | 2.063             | 0.467           |
| 86     | 1.201             | N/A             | 150    | 2.085             | 0.472           |
| 87     | 1.217             | N/A             | 151    | 2.104             | 0.480           |
| 88     | 1.233             | N/A             | 152    | 2.117             | 0.491           |
| 89     | 1.248             | N/A             | 153    | 2.127             | 0.503           |
| 90     | 1.262             | N/A             | 154    | 2.138             | 0.505           |
| 91     | 1.271             | N/A             | 155    | 2.152             | 0.515           |
| 92     | 1.279             | N/A             | 156    | 2.168             | 0.522           |
| 93     | 1.287             | N/A             | 157    | 2.186             | 0.527           |
| 94     | 1.295             | 0.001           | 158    | 2.205             | 0.537           |
| 95     | 1.302             | 0.002           | 159    | 2.224             | 0.549           |
| 96     | 1.309             | 0.003           | 160    | 2.242             | 0.568           |
| 97     | 1.316             | 0.004           | 161    | 2.268             | 0.586           |
| 98     | 1.325             | 0.008           | 162    | 2.308             | 0.610           |
| 99     | 1.339             | 0.015           | 163    | 2.352             | 0.648           |
| 100    | 1.356             | 0.021           | 164    | 2.406             | 0.677           |
| 101    | 1.365             | 0.026           | 165    | 2.421             | 0.699           |
| 102    | 1.378             | 0.039           | 166    | 2.435             | 0.720           |
| 103    | 1.397             | 0.044           | 167    | 2.470             | 0.738           |
| 104    | 1.420             | 0.055           | 168    | 2.501             | 0.767           |
| 105    | 1.445             | 0.094           | 169    | 2.537             | 0.828           |
| 106    | 1.470             | 0.110           | 170    | 2.571             | 0.855           |
| 107    | 1.491             | 0.116           | 171    | 2.625             | 0.869           |
| 108    | 1.506             | 0.132           | 172    | 2.657             | 0.885           |
| 109    | 1.517             | 0.151           | 173    | 2.683             | 0.900           |
| 110    | 1.528             | 0.159           | 174    | 2.701             | 0.941           |
| 111    | 1.542             | 0.172           | 175    | 2.717             | 0.979           |
| 112    | 1.559             | 0.186           | 176    | 2.732             | 1.002           |
| 113    | 1.578             | 0.199           | 177    | 2.756             | 1.025           |
| 114    | 1.594             | 0.207           | 178    | 2.781             | 1.047           |
| 115    | 1.605             | 0.216           | 179    | 2.811             | 1.065           |
| 116    | 1.615             | 0.229           | 180    | 2.853             | 1.089           |
| 117    | 1.625             | 0.235           | 181    | 2.898             | 1.109           |
| 118    | 1.642             | 0.240           | 182    | 2.946             | 1.133           |
| 119    | 1.670             | 0.245           | 183    | 2.988             | 1.158           |
| 120    | 1.694             | 0.261           | 184    | 3.023             | 1.184           |
| 121    | 1.705             | 0.267           | 185    | 3.057             | 1.209           |
| 122    | 1.717             | 0.277           | 186    | 3.076             | 1.222           |
| 123    | 1.732             | 0.287           | 187    | 3.101             | 1.231           |
| 124    | 1.747             | 0.298           | 188    | 3.120             | 1.239           |
| 125    | 1.763             | 0.308           | 189    | 3.136             | 1.254           |
| 126    | 1.779             | 0.316           | 190    | 3.151             | 1.278           |
| 127    | 1.795             | 0.322           | 191    | 3.163             | 1.300           |
| 128    | 1.810             | 0.329           | 192    | 3.209             | 1.313           |
| 129    | 1.823             | 0.338           | 193    | 3.223             | 1.324           |
| 130    | 1.835             | 0.346           | 194    | 3.237             | 1.340           |
| 131    | 1.845             | 0.354           | 195    | 3.263             | 1.367           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 196    | 3.302             | 1.387           | 218    | 3.853             | 1.705           |
| 197    | 3.338             | 1.402           | 219    | 3.864             | 1.711           |
| 198    | 3.372             | 1.417           | 220    | 3.874             | 1.735           |
| 199    | 3.390             | 1.432           | 221    | 3.891             | 1.752           |
| 200    | 3.428             | 1.446           | 222    | 3.928             | 1.760           |
| 201    | 3.470             | 1.460           | 223    | 3.966             | 1.774           |
| 202    | 3.493             | 1.477           | 224    | 4.008             | 1.778           |
| 203    | 3.509             | 1.492           | 225    | 4.010             | 1.797           |
| 204    | 3.522             | 1.501           | 226    | 4.012             | 1.802           |
| 205    | 3.533             | 1.510           | 227    | 4.016             | 1.804           |
| 206    | 3.550             | 1.522           | 228    | 4.019             | 1.806           |
| 207    | 3.578             | 1.561           | 229    | 4.057             | 1.810           |
| 208    | 3.607             | 1.585           | 230    | 4.065             | 1.814           |
| 209    | 3.630             | 1.597           | 231    | 4.072             | 1.827           |
| 210    | 3.658             | 1.607           | 232    | 4.081             | 1.833           |
| 211    | 3.701             | 1.627           | 233    | 4.104             | 1.837           |
| 212    | 3.745             | 1.645           | 234    | 4.124             | 1.841           |
| 213    | 3.778             | 1.656           | 235    | 4.128             | 1.845           |
| 214    | 3.814             | 1.663           | 236    | 4.132             | 1.851           |
| 215    | 3.825             | 1.669           | 237    | 4.137             | 1.855           |
| 216    | 3.835             | 1.674           | 238    | 4.147             | 1.857           |
| 217    | 3.844             | 1.685           | 239    | 4.158             | 1.860           |

**(2) CARBON MONOXIDE EXHAUST EMISSIONS.** (a) *Motor vehicles having composite carbon monoxide emission limitations in Table 1 of at least 10.0 grams/mile but less than 15.0 grams/mile.*

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.462             | N/A             | 69     | 1.384             | N/A             |
| 31     | 0.515             | N/A             | 70     | 1.403             | N/A             |
| 32     | 0.558             | N/A             | 71     | 1.411             | N/A             |
| 33     | 0.567             | N/A             | 72     | 1.417             | N/A             |
| 34     | 0.569             | N/A             | 73     | 1.420             | N/A             |
| 35     | 0.571             | N/A             | 74     | 1.425             | N/A             |
| 36     | 0.600             | N/A             | 75     | 1.435             | N/A             |
| 37     | 0.640             | N/A             | 76     | 1.447             | N/A             |
| 38     | 0.689             | N/A             | 77     | 1.459             | N/A             |
| 39     | 0.713             | N/A             | 78     | 1.467             | N/A             |
| 40     | 0.717             | N/A             | 79     | 1.475             | N/A             |
| 41     | 0.722             | N/A             | 80     | 1.475             | N/A             |
| 42     | 0.735             | N/A             | 81     | 1.481             | N/A             |
| 43     | 0.741             | N/A             | 82     | 1.481             | N/A             |
| 44     | 0.743             | N/A             | 83     | 1.485             | N/A             |
| 45     | 0.771             | N/A             | 84     | 1.491             | N/A             |
| 46     | 0.896             | N/A             | 85     | 1.495             | N/A             |
| 47     | 0.988             | N/A             | 86     | 1.508             | N/A             |
| 48     | 1.020             | N/A             | 87     | 1.514             | N/A             |
| 49     | 1.028             | N/A             | 88     | 1.523             | N/A             |
| 50     | 1.035             | N/A             | 89     | 1.533             | N/A             |
| 51     | 1.047             | N/A             | 90     | 1.539             | N/A             |
| 52     | 1.063             | N/A             | 91     | 1.551             | N/A             |
| 53     | 1.089             | N/A             | 92     | 1.553             | N/A             |
| 54     | 1.123             | N/A             | 93     | 1.554             | N/A             |
| 55     | 1.126             | N/A             | 94     | 1.563             | N/A             |
| 56     | 1.129             | N/A             | 95     | 1.565             | N/A             |
| 57     | 1.133             | N/A             | 96     | 1.570             | N/A             |
| 58     | 1.149             | N/A             | 97     | 1.597             | N/A             |
| 59     | 1.235             | N/A             | 98     | 1.634             | N/A             |
| 60     | 1.248             | N/A             | 99     | 1.672             | N/A             |
| 61     | 1.248             | N/A             | 100    | 1.727             | N/A             |
| 62     | 1.248             | N/A             | 101    | 1.773             | N/A             |
| 63     | 1.267             | N/A             | 102    | 1.833             | N/A             |
| 64     | 1.278             | N/A             | 103    | 1.942             | N/A             |
| 65     | 1.296             | N/A             | 104    | 2.108             | N/A             |
| 66     | 1.333             | N/A             | 105    | 2.113             | N/A             |
| 67     | 1.373             | N/A             | 106    | 2.131             | N/A             |
| 68     | 1.376             | N/A             | 107    | 2.192             | N/A             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 108    | 2.279             | N/A             | 172    | 10.469            | 4.459           |
| 109    | 2.391             | 0.115           | 173    | 10.835            | 4.669           |
| 110    | 2.397             | 0.119           | 174    | 11.271            | 4.950           |
| 111    | 2.427             | 0.163           | 175    | 11.770            | 5.600           |
| 112    | 2.493             | 0.183           | 176    | 12.013            | 5.654           |
| 113    | 2.579             | 0.192           | 177    | 12.233            | 5.898           |
| 114    | 2.585             | 0.200           | 178    | 12.447            | 6.046           |
| 115    | 2.623             | 0.216           | 179    | 12.648            | 6.078           |
| 116    | 2.677             | 0.227           | 180    | 12.819            | 6.124           |
| 117    | 2.707             | 0.237           | 181    | 13.415            | 6.267           |
| 118    | 2.709             | 0.240           | 182    | 13.603            | 6.549           |
| 119    | 2.719             | 0.245           | 183    | 13.836            | 7.046           |
| 120    | 2.760             | 0.252           | 184    | 14.456            | 7.463           |
| 121    | 2.790             | 0.267           | 185    | 14.637            | 7.555           |
| 122    | 2.799             | 0.280           | 186    | 15.100            | 7.699           |
| 123    | 2.803             | 0.318           | 187    | 15.326            | 7.911           |
| 124    | 2.808             | 0.330           | 188    | 15.690            | 8.172           |
| 125    | 2.821             | 0.348           | 189    | 15.917            | 8.258           |
| 126    | 2.865             | 0.356           | 190    | 16.012            | 8.361           |
| 127    | 2.896             | 0.359           | 191    | 16.309            | 8.600           |
| 128    | 2.907             | 0.361           | 192    | 16.457            | 8.655           |
| 129    | 2.911             | 0.363           | 193    | 16.621            | 8.674           |
| 130    | 2.913             | 0.364           | 194    | 16.792            | 8.693           |
| 131    | 2.915             | 0.364           | 195    | 16.979            | 8.778           |
| 132    | 2.957             | 0.367           | 196    | 17.085            | 8.867           |
| 133    | 3.015             | 0.378           | 197    | 17.164            | 8.924           |
| 134    | 3.016             | 0.381           | 198    | 17.233            | 8.973           |
| 135    | 3.017             | 0.405           | 199    | 17.316            | 9.045           |
| 136    | 3.021             | 0.423           | 200    | 17.427            | 9.098           |
| 137    | 3.023             | 0.439           | 201    | 17.483            | 9.215           |
| 138    | 3.028             | 0.449           | 202    | 17.559            | 9.386           |
| 139    | 3.035             | 0.455           | 203    | 17.698            | 9.463           |
| 140    | 3.036             | 0.469           | 204    | 17.879            | 9.579           |
| 141    | 3.036             | 0.478           | 205    | 18.035            | 9.680           |
| 142    | 3.036             | 0.486           | 206    | 18.262            | 9.773           |
| 143    | 3.036             | 0.495           | 207    | 18.334            | 9.911           |
| 144    | 3.036             | 0.508           | 208    | 18.421            | 9.961           |
| 145    | 3.036             | 0.510           | 209    | 18.535            | 10.152          |
| 146    | 3.036             | 0.510           | 210    | 18.635            | 10.242          |
| 147    | 3.036             | 0.512           | 211    | 18.803            | 10.248          |
| 148    | 3.036             | 0.514           | 212    | 19.029            | 10.315          |
| 149    | 3.036             | 0.516           | 213    | 19.331            | 10.458          |
| 150    | 3.036             | 0.524           | 214    | 19.333            | 10.630          |
| 151    | 3.037             | 0.542           | 215    | 19.337            | 10.687          |
| 152    | 3.037             | 0.543           | 216    | 19.387            | 10.754          |
| 153    | 3.043             | 0.546           | 217    | 19.521            | 10.971          |
| 154    | 3.075             | 0.549           | 218    | 19.655            | 11.012          |
| 155    | 3.223             | 0.553           | 219    | 19.823            | 11.250          |
| 156    | 3.801             | 0.578           | 220    | 19.869            | 11.327          |
| 157    | 3.894             | 0.680           | 221    | 19.881            | 11.353          |
| 158    | 4.113             | 0.713           | 222    | 19.898            | 11.390          |
| 159    | 4.447             | 0.932           | 223    | 19.908            | 11.463          |
| 160    | 4.950             | 1.000           | 224    | 19.915            | 11.511          |
| 161    | 5.586             | 1.062           | 225    | 20.005            | 11.522          |
| 162    | 6.432             | 1.253           | 226    | 20.084            | 11.546          |
| 163    | 7.279             | 1.887           | 227    | 20.085            | 11.587          |
| 164    | 8.105             | 2.111           | 228    | 20.085            | 11.652          |
| 165    | 8.487             | 2.496           | 229    | 20.139            | 11.652          |
| 166    | 8.554             | 3.095           | 230    | 20.209            | 11.654          |
| 167    | 8.595             | 3.402           | 231    | 20.215            | 11.672          |
| 168    | 8.621             | 3.610           | 232    | 20.217            | 11.729          |
| 169    | 9.135             | 3.937           | 233    | 20.245            | 11.744          |
| 170    | 9.426             | 4.157           | 234    | 20.274            | 11.806          |
| 171    | 9.976             | 4.351           | 235    | 20.277            | 11.808          |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 236    | 20.285            | 11.809          | 238    | 20.301            | 11.845          |
| 237    | 20.287            | 11.810          | 239    | 20.325            | 11.934          |

(b) *Motor vehicles having composite carbon monoxide emission limitations in Table 1 of at least 15.0 grams/mile but less than 20.0 grams/mile.*

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 0.693             | N/A             | 89     | 2.299             | N/A             |
| 31     | 0.773             | N/A             | 90     | 2.308             | N/A             |
| 32     | 0.837             | N/A             | 91     | 2.326             | N/A             |
| 33     | 0.851             | N/A             | 92     | 2.330             | N/A             |
| 34     | 0.853             | N/A             | 93     | 2.331             | N/A             |
| 35     | 0.857             | N/A             | 94     | 2.344             | 0.000           |
| 36     | 0.900             | N/A             | 95     | 2.347             | 0.000           |
| 37     | 0.960             | N/A             | 96     | 2.355             | 0.000           |
| 38     | 1.034             | N/A             | 97     | 2.395             | 0.000           |
| 39     | 1.070             | N/A             | 98     | 2.451             | 0.000           |
| 40     | 1.076             | N/A             | 99     | 2.508             | 0.004           |
| 41     | 1.083             | N/A             | 100    | 2.590             | 0.008           |
| 42     | 1.102             | N/A             | 101    | 2.660             | 0.015           |
| 43     | 1.111             | N/A             | 102    | 2.749             | 0.026           |
| 44     | 1.114             | N/A             | 103    | 2.913             | 0.038           |
| 45     | 1.157             | N/A             | 104    | 3.162             | 0.038           |
| 46     | 1.344             | N/A             | 105    | 3.170             | 0.039           |
| 47     | 1.482             | N/A             | 106    | 3.197             | 0.061           |
| 48     | 1.530             | N/A             | 107    | 3.288             | 0.062           |
| 49     | 1.542             | N/A             | 108    | 3.419             | 0.108           |
| 50     | 1.553             | N/A             | 109    | 3.587             | 0.168           |
| 51     | 1.571             | N/A             | 110    | 3.595             | 0.173           |
| 52     | 1.595             | N/A             | 111    | 3.640             | 0.237           |
| 53     | 1.633             | N/A             | 112    | 3.740             | 0.266           |
| 54     | 1.685             | N/A             | 113    | 3.868             | 0.280           |
| 55     | 1.689             | N/A             | 114    | 3.877             | 0.291           |
| 56     | 1.693             | N/A             | 115    | 3.934             | 0.314           |
| 57     | 1.700             | N/A             | 116    | 4.015             | 0.331           |
| 58     | 1.723             | N/A             | 117    | 4.061             | 0.345           |
| 59     | 1.852             | N/A             | 118    | 4.063             | 0.350           |
| 60     | 1.872             | N/A             | 119    | 4.079             | 0.356           |
| 61     | 1.872             | N/A             | 120    | 4.140             | 0.367           |
| 62     | 1.872             | N/A             | 121    | 4.185             | 0.388           |
| 63     | 1.900             | N/A             | 122    | 4.199             | 0.407           |
| 64     | 1.917             | N/A             | 123    | 4.205             | 0.463           |
| 65     | 1.944             | N/A             | 124    | 4.212             | 0.480           |
| 66     | 2.000             | N/A             | 125    | 4.232             | 0.506           |
| 67     | 2.060             | N/A             | 126    | 4.298             | 0.518           |
| 68     | 2.064             | N/A             | 127    | 4.344             | 0.522           |
| 69     | 2.076             | N/A             | 128    | 4.361             | 0.525           |
| 70     | 2.104             | N/A             | 129    | 4.366             | 0.528           |
| 71     | 2.117             | N/A             | 130    | 4.369             | 0.530           |
| 72     | 2.125             | N/A             | 131    | 4.372             | 0.530           |
| 73     | 2.130             | N/A             | 132    | 4.435             | 0.534           |
| 74     | 2.138             | N/A             | 133    | 4.523             | 0.550           |
| 75     | 2.152             | N/A             | 134    | 4.524             | 0.554           |
| 76     | 2.170             | N/A             | 135    | 4.525             | 0.590           |
| 77     | 2.188             | N/A             | 136    | 4.531             | 0.616           |
| 78     | 2.200             | N/A             | 137    | 4.534             | 0.639           |
| 79     | 2.212             | N/A             | 138    | 4.542             | 0.653           |
| 80     | 2.212             | N/A             | 139    | 4.553             | 0.662           |
| 81     | 2.221             | N/A             | 140    | 4.554             | 0.683           |
| 82     | 2.222             | N/A             | 141    | 4.554             | 0.696           |
| 83     | 2.227             | N/A             | 142    | 4.554             | 0.708           |
| 84     | 2.236             | N/A             | 143    | 4.554             | 0.721           |
| 85     | 2.243             | N/A             | 144    | 4.554             | 0.739           |
| 86     | 2.262             | N/A             | 145    | 4.554             | 0.742           |
| 87     | 2.271             | N/A             | 146    | 4.554             | 0.743           |
| 88     | 2.284             | N/A             | 147    | 4.554             | 0.745           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 148    | 4.554             | 0.748           | 194    | 25.188            | 12.653          |
| 149    | 4.554             | 0.751           | 195    | 25.468            | 12.777          |
| 150    | 4.554             | 0.762           | 196    | 25.627            | 12.906          |
| 151    | 4.556             | 0.789           | 197    | 25.746            | 12.989          |
| 152    | 4.556             | 0.790           | 198    | 25.850            | 13.060          |
| 153    | 4.565             | 0.794           | 199    | 25.974            | 13.165          |
| 154    | 4.612             | 0.799           | 200    | 26.141            | 13.242          |
| 155    | 4.834             | 0.805           | 201    | 26.225            | 13.412          |
| 156    | 5.702             | 0.842           | 202    | 26.338            | 13.662          |
| 157    | 5.841             | 0.990           | 203    | 26.547            | 13.773          |
| 158    | 6.170             | 1.038           | 204    | 26.818            | 13.942          |
| 159    | 6.670             | 1.357           | 205    | 27.052            | 14.090          |
| 160    | 7.425             | 1.455           | 206    | 27.393            | 14.224          |
| 161    | 8.379             | 1.546           | 207    | 27.501            | 14.426          |
| 162    | 9.648             | 1.824           | 208    | 27.632            | 14.498          |
| 163    | 10.918            | 2.746           | 209    | 27.803            | 14.776          |
| 164    | 12.127            | 3.073           | 210    | 27.953            | 14.907          |
| 165    | 12.731            | 3.633           | 211    | 28.205            | 14.916          |
| 166    | 12.831            | 4.505           | 212    | 28.543            | 15.014          |
| 167    | 12.892            | 4.952           | 213    | 28.997            | 15.221          |
| 168    | 12.932            | 5.254           | 214    | 29.000            | 15.472          |
| 169    | 13.702            | 5.730           | 215    | 29.005            | 15.555          |
| 170    | 14.139            | 6.051           | 216    | 29.081            | 15.652          |
| 171    | 14.964            | 6.333           | 217    | 29.281            | 15.969          |
| 172    | 15.704            | 6.490           | 218    | 29.483            | 16.028          |
| 173    | 16.253            | 6.796           | 219    | 29.734            | 16.375          |
| 174    | 16.907            | 7.205           | 220    | 29.803            | 16.487          |
| 175    | 17.655            | 8.151           | 221    | 29.821            | 16.524          |
| 176    | 18.020            | 8.230           | 222    | 29.847            | 16.578          |
| 177    | 18.349            | 8.584           | 223    | 29.862            | 16.684          |
| 178    | 18.671            | 8.800           | 224    | 29.873            | 16.755          |
| 179    | 18.972            | 8.847           | 225    | 30.008            | 16.770          |
| 180    | 19.228            | 8.913           | 226    | 30.126            | 16.805          |
| 181    | 20.123            | 9.122           | 227    | 30.127            | 16.865          |
| 182    | 20.405            | 9.532           | 228    | 30.127            | 16.960          |
| 183    | 20.754            | 10.256          | 229    | 30.208            | 16.960          |
| 184    | 21.684            | 10.862          | 230    | 30.314            | 16.962          |
| 185    | 21.955            | 10.996          | 231    | 30.323            | 16.988          |
| 186    | 22.650            | 11.206          | 232    | 30.325            | 17.072          |
| 187    | 22.989            | 11.514          | 233    | 30.368            | 17.094          |
| 188    | 23.535            | 11.894          | 234    | 30.411            | 17.184          |
| 189    | 23.876            | 12.019          | 235    | 30.416            | 17.187          |
| 190    | 24.018            | 12.170          | 236    | 30.428            | 17.188          |
| 191    | 24.464            | 12.517          | 237    | 30.430            | 17.189          |
| 192    | 24.685            | 12.598          | 238    | 30.452            | 17.241          |
| 193    | 24.931            | 12.625          | 239    | 30.488            | 17.370          |

(c) Motor vehicles having composite carbon monoxide emission limitations in Table 1 of at least 20.0 grams/mile but less than 30.0 grams/mile.

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 1.502             | N/A             | 45     | 2.406             | N/A             |
| 31     | 1.546             | N/A             | 46     | 2.433             | N/A             |
| 32     | 1.568             | N/A             | 47     | 2.458             | N/A             |
| 33     | 1.582             | N/A             | 48     | 2.483             | N/A             |
| 34     | 1.593             | N/A             | 49     | 2.774             | N/A             |
| 35     | 1.602             | N/A             | 50     | 2.844             | N/A             |
| 36     | 1.621             | N/A             | 51     | 2.900             | N/A             |
| 37     | 1.631             | N/A             | 52     | 2.936             | N/A             |
| 38     | 1.702             | N/A             | 53     | 3.133             | N/A             |
| 39     | 1.784             | N/A             | 54     | 3.304             | N/A             |
| 40     | 1.879             | N/A             | 55     | 3.407             | N/A             |
| 41     | 2.162             | N/A             | 56     | 3.456             | N/A             |
| 42     | 2.307             | N/A             | 57     | 3.480             | N/A             |
| 43     | 2.343             | N/A             | 58     | 3.518             | N/A             |
| 44     | 2.376             | N/A             | 59     | 3.560             | N/A             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 60     | 3.593             | N/A             | 124    | 8.568             | 0.532           |
| 61     | 3.628             | N/A             | 125    | 8.572             | 0.533           |
| 62     | 3.641             | N/A             | 126    | 8.584             | 0.548           |
| 63     | 3.655             | N/A             | 127    | 8.592             | 0.610           |
| 64     | 3.680             | N/A             | 128    | 8.596             | 0.614           |
| 65     | 3.700             | N/A             | 129    | 8.597             | 0.622           |
| 66     | 3.728             | N/A             | 130    | 8.601             | 0.631           |
| 67     | 3.857             | N/A             | 131    | 8.605             | 0.640           |
| 68     | 3.894             | N/A             | 132    | 8.608             | 0.646           |
| 69     | 3.943             | N/A             | 133    | 8.626             | 0.650           |
| 70     | 3.983             | N/A             | 134    | 8.650             | 0.652           |
| 71     | 4.009             | N/A             | 135    | 8.660             | 0.738           |
| 72     | 4.023             | N/A             | 136    | 8.767             | 0.754           |
| 73     | 4.023             | N/A             | 137    | 9.029             | 0.780           |
| 74     | 4.053             | N/A             | 138    | 9.238             | 0.795           |
| 75     | 4.063             | N/A             | 139    | 9.389             | 0.804           |
| 76     | 4.077             | N/A             | 140    | 9.493             | 0.810           |
| 77     | 4.225             | N/A             | 141    | 9.583             | 0.815           |
| 78     | 4.243             | N/A             | 142    | 9.626             | 0.818           |
| 79     | 4.260             | N/A             | 143    | 9.669             | 0.821           |
| 80     | 4.282             | N/A             | 144    | 9.716             | 0.825           |
| 81     | 4.322             | N/A             | 145    | 9.763             | 0.840           |
| 82     | 4.398             | N/A             | 146    | 9.809             | 0.847           |
| 83     | 4.482             | N/A             | 147    | 9.852             | 0.855           |
| 84     | 4.515             | N/A             | 148    | 9.885             | 0.865           |
| 85     | 4.518             | N/A             | 149    | 9.932             | 0.874           |
| 86     | 4.520             | N/A             | 150    | 9.986             | 0.891           |
| 87     | 4.522             | N/A             | 151    | 10.039            | 0.914           |
| 88     | 4.522             | N/A             | 152    | 10.072            | 0.929           |
| 89     | 4.523             | N/A             | 153    | 10.090            | 0.937           |
| 90     | 4.526             | N/A             | 154    | 10.105            | 0.942           |
| 91     | 4.527             | N/A             | 155    | 10.146            | 0.949           |
| 92     | 4.527             | N/A             | 156    | 10.245            | 1.375           |
| 93     | 4.528             | N/A             | 157    | 10.397            | 1.576           |
| 94     | 4.528             | 0.000           | 158    | 10.923            | 1.943           |
| 95     | 4.528             | 0.000           | 159    | 11.970            | 2.820           |
| 96     | 4.529             | 0.000           | 160    | 13.421            | 3.281           |
| 97     | 4.575             | 0.000           | 161    | 15.289            | 3.483           |
| 98     | 4.703             | 0.002           | 162    | 15.912            | 3.620           |
| 99     | 4.805             | 0.005           | 163    | 16.530            | 4.168           |
| 100    | 4.886             | 0.010           | 164    | 17.622            | 4.338           |
| 101    | 4.957             | 0.017           | 165    | 18.366            | 4.682           |
| 102    | 5.104             | 0.052           | 166    | 19.869            | 5.633           |
| 103    | 5.340             | 0.085           | 167    | 20.711            | 6.137           |
| 104    | 5.496             | 0.094           | 168    | 22.319            | 6.853           |
| 105    | 5.625             | 0.122           | 169    | 23.751            | 7.136           |
| 106    | 5.815             | 0.151           | 170    | 24.842            | 7.320           |
| 107    | 6.473             | 0.191           | 171    | 25.410            | 7.685           |
| 108    | 7.037             | 0.234           | 172    | 25.798            | 8.052           |
| 109    | 7.419             | 0.246           | 173    | 26.122            | 8.344           |
| 110    | 7.643             | 0.257           | 174    | 26.353            | 8.602           |
| 111    | 7.759             | 0.286           | 175    | 26.638            | 8.898           |
| 112    | 7.824             | 0.379           | 176    | 27.219            | 9.251           |
| 113    | 7.889             | 0.425           | 177    | 27.279            | 10.253          |
| 114    | 7.960             | 0.457           | 178    | 27.320            | 10.828          |
| 115    | 8.024             | 0.477           | 179    | 27.352            | 10.933          |
| 116    | 8.076             | 0.494           | 180    | 27.822            | 11.060          |
| 117    | 8.111             | 0.504           | 181    | 28.763            | 11.188          |
| 118    | 8.130             | 0.512           | 182    | 29.402            | 11.345          |
| 119    | 8.148             | 0.519           | 183    | 29.971            | 11.733          |
| 120    | 8.211             | 0.529           | 184    | 30.276            | 12.598          |
| 121    | 8.478             | 0.529           | 185    | 30.988            | 12.953          |
| 122    | 8.548             | 0.530           | 186    | 31.095            | 13.213          |
| 123    | 8.561             | 0.531           | 187    | 31.314            | 14.131          |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 188    | 31.833            | 14.839          | 214    | 38.591            | 20.260          |
| 189    | 32.239            | 15.137          | 215    | 38.852            | 20.739          |
| 190    | 32.547            | 15.138          | 216    | 38.861            | 21.346          |
| 191    | 32.855            | 15.141          | 217    | 38.926            | 21.810          |
| 192    | 33.153            | 15.595          | 218    | 39.194            | 22.001          |
| 193    | 33.444            | 15.658          | 219    | 39.474            | 22.290          |
| 194    | 33.482            | 15.704          | 220    | 39.668            | 22.324          |
| 195    | 33.516            | 15.729          | 221    | 39.781            | 22.343          |
| 196    | 33.549            | 16.058          | 222    | 39.890            | 22.522          |
| 197    | 33.653            | 16.987          | 223    | 39.954            | 22.683          |
| 198    | 33.973            | 17.064          | 224    | 39.984            | 22.850          |
| 199    | 34.159            | 17.073          | 225    | 39.989            | 22.853          |
| 200    | 34.191            | 17.153          | 226    | 39.990            | 22.853          |
| 201    | 34.250            | 17.332          | 227    | 39.990            | 22.853          |
| 202    | 34.469            | 17.406          | 228    | 39.990            | 22.872          |
| 203    | 34.716            | 17.641          | 229    | 39.991            | 22.872          |
| 204    | 34.969            | 17.922          | 230    | 40.012            | 22.872          |
| 205    | 35.144            | 18.484          | 231    | 40.061            | 22.895          |
| 206    | 35.418            | 18.553          | 232    | 40.116            | 22.911          |
| 207    | 35.766            | 18.658          | 233    | 40.249            | 22.922          |
| 208    | 35.949            | 18.953          | 234    | 40.253            | 22.939          |
| 209    | 36.010            | 19.266          | 235    | 40.290            | 23.010          |
| 210    | 36.548            | 19.309          | 236    | 40.385            | 23.010          |
| 211    | 37.179            | 19.731          | 237    | 40.488            | 23.010          |
| 212    | 37.651            | 19.902          | 238    | 40.720            | 23.010          |
| 213    | 38.041            | 20.012          | 239    | 40.763            | 23.010          |

(d) *Motor vehicles having composite carbon monoxide emission limitations in Table 1 of 30.0 grams/mile or greater.*

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 30     | 3.804             | N/A             | 66     | 9.354             | N/A             |
| 31     | 3.985             | N/A             | 67     | 9.457             | N/A             |
| 32     | 4.215             | N/A             | 68     | 9.575             | N/A             |
| 33     | 4.440             | N/A             | 69     | 9.728             | N/A             |
| 34     | 4.579             | N/A             | 70     | 9.938             | N/A             |
| 35     | 4.688             | N/A             | 71     | 10.140            | N/A             |
| 36     | 4.749             | N/A             | 72     | 10.222            | N/A             |
| 37     | 4.783             | N/A             | 73     | 10.261            | N/A             |
| 38     | 4.813             | N/A             | 74     | 10.278            | N/A             |
| 39     | 4.876             | N/A             | 75     | 10.290            | N/A             |
| 40     | 5.104             | N/A             | 76     | 10.715            | N/A             |
| 41     | 5.217             | N/A             | 77     | 10.790            | N/A             |
| 42     | 5.383             | N/A             | 78     | 10.844            | N/A             |
| 43     | 5.571             | N/A             | 79     | 10.921            | N/A             |
| 44     | 5.888             | N/A             | 80     | 11.010            | N/A             |
| 45     | 6.199             | N/A             | 81     | 11.090            | N/A             |
| 46     | 6.245             | N/A             | 82     | 11.136            | N/A             |
| 47     | 6.318             | N/A             | 83     | 11.136            | N/A             |
| 48     | 6.418             | N/A             | 84     | 11.165            | N/A             |
| 49     | 6.540             | N/A             | 85     | 11.191            | N/A             |
| 50     | 6.690             | N/A             | 86     | 11.205            | N/A             |
| 51     | 6.875             | N/A             | 87     | 11.211            | N/A             |
| 52     | 7.029             | N/A             | 88     | 11.211            | N/A             |
| 53     | 7.129             | N/A             | 89     | 11.211            | N/A             |
| 54     | 7.359             | N/A             | 90     | 11.211            | N/A             |
| 55     | 7.722             | N/A             | 91     | 11.220            | N/A             |
| 56     | 8.017             | N/A             | 92     | 11.294            | N/A             |
| 57     | 8.249             | N/A             | 93     | 11.332            | N/A             |
| 58     | 8.425             | N/A             | 94     | 11.355            | 0.000           |
| 59     | 8.563             | N/A             | 95     | 11.383            | 0.000           |
| 60     | 8.686             | N/A             | 96     | 11.410            | 0.001           |
| 61     | 8.804             | N/A             | 97     | 11.433            | 0.006           |
| 62     | 8.916             | N/A             | 98     | 11.516            | 0.020           |
| 63     | 9.025             | N/A             | 99     | 11.820            | 0.051           |
| 64     | 9.138             | N/A             | 100    | 12.104            | 0.092           |
| 65     | 9.250             | N/A             | 101    | 12.344            | 0.131           |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 102    | 12.781            | 0.200           | 166    | 35.937            | 13.366          |
| 103    | 13.472            | 0.307           | 167    | 37.012            | 14.428          |
| 104    | 14.405            | 0.582           | 168    | 37.892            | 15.318          |
| 105    | 14.808            | 0.800           | 169    | 39.028            | 15.699          |
| 106    | 14.965            | 0.925           | 170    | 40.406            | 16.073          |
| 107    | 15.121            | 0.973           | 171    | 41.379            | 16.475          |
| 108    | 15.372            | 1.091           | 172    | 42.033            | 17.158          |
| 109    | 15.530            | 1.113           | 173    | 42.432            | 17.532          |
| 110    | 15.687            | 1.213           | 174    | 42.742            | 17.965          |
| 111    | 16.018            | 1.344           | 175    | 43.399            | 18.242          |
| 112    | 16.527            | 1.399           | 176    | 43.895            | 18.283          |
| 113    | 16.810            | 1.520           | 177    | 44.227            | 18.480          |
| 114    | 16.961            | 1.640           | 178    | 44.926            | 19.576          |
| 115    | 17.120            | 1.684           | 179    | 45.256            | 20.015          |
| 116    | 17.135            | 1.693           | 180    | 45.553            | 20.203          |
| 117    | 17.249            | 1.786           | 181    | 45.753            | 20.433          |
| 118    | 17.451            | 2.007           | 182    | 46.210            | 21.025          |
| 119    | 17.509            | 2.084           | 183    | 47.017            | 21.882          |
| 120    | 17.605            | 2.179           | 184    | 48.185            | 22.204          |
| 121    | 17.734            | 2.264           | 185    | 48.741            | 22.859          |
| 122    | 18.049            | 2.328           | 186    | 49.462            | 23.533          |
| 123    | 18.447            | 2.375           | 187    | 50.313            | 24.281          |
| 124    | 18.592            | 2.437           | 188    | 51.285            | 25.078          |
| 125    | 18.657            | 2.543           | 189    | 52.076            | 25.276          |
| 126    | 18.796            | 2.593           | 190    | 52.857            | 25.578          |
| 127    | 18.952            | 2.641           | 191    | 52.876            | 25.859          |
| 128    | 19.137            | 2.663           | 192    | 53.067            | 25.985          |
| 129    | 19.329            | 2.672           | 193    | 53.777            | 26.153          |
| 130    | 19.519            | 2.676           | 194    | 54.242            | 26.582          |
| 131    | 19.707            | 2.683           | 195    | 54.489            | 27.067          |
| 132    | 19.882            | 2.817           | 196    | 54.601            | 27.456          |
| 133    | 19.905            | 2.992           | 197    | 54.912            | 27.805          |
| 134    | 20.049            | 3.111           | 198    | 55.588            | 28.070          |
| 135    | 20.460            | 3.234           | 199    | 56.266            | 28.590          |
| 136    | 20.746            | 3.304           | 200    | 56.617            | 28.914          |
| 137    | 21.068            | 3.310           | 201    | 56.863            | 29.063          |
| 138    | 21.380            | 3.320           | 202    | 57.204            | 29.502          |
| 139    | 21.748            | 3.354           | 203    | 57.371            | 29.697          |
| 140    | 22.046            | 3.436           | 204    | 57.487            | 29.713          |
| 141    | 22.348            | 3.443           | 205    | 57.728            | 29.783          |
| 142    | 22.397            | 3.452           | 206    | 58.097            | 29.942          |
| 143    | 22.407            | 3.490           | 207    | 58.572            | 30.284          |
| 144    | 22.417            | 3.552           | 208    | 59.024            | 30.755          |
| 145    | 22.922            | 3.588           | 209    | 59.321            | 31.287          |
| 146    | 22.951            | 3.600           | 210    | 59.715            | 31.549          |
| 147    | 22.976            | 3.616           | 211    | 60.045            | 31.820          |
| 148    | 23.017            | 3.627           | 212    | 60.453            | 32.250          |
| 149    | 23.073            | 3.636           | 213    | 60.935            | 32.546          |
| 150    | 23.161            | 3.676           | 214    | 61.307            | 32.808          |
| 151    | 23.218            | 3.882           | 215    | 61.666            | 33.142          |
| 152    | 23.253            | 4.011           | 216    | 62.148            | 33.529          |
| 153    | 23.337            | 4.047           | 217    | 62.532            | 33.763          |
| 154    | 23.425            | 4.067           | 218    | 62.546            | 33.921          |
| 155    | 23.534            | 4.081           | 219    | 62.559            | 33.961          |
| 156    | 23.652            | 4.116           | 220    | 62.570            | 33.983          |
| 157    | 23.739            | 4.251           | 221    | 62.846            | 34.007          |
| 158    | 24.606            | 5.099           | 222    | 63.097            | 34.032          |
| 159    | 25.615            | 5.383           | 223    | 63.150            | 34.054          |
| 160    | 26.073            | 6.362           | 224    | 63.150            | 34.061          |
| 161    | 28.496            | 7.926           | 225    | 63.150            | 34.082          |
| 162    | 29.772            | 8.429           | 226    | 63.150            | 34.100          |
| 163    | 31.056            | 9.201           | 227    | 63.150            | 34.109          |
| 164    | 33.351            | 10.825          | 228    | 63.150            | 34.129          |
| 165    | 34.890            | 12.291          | 229    | 63.150            | 34.284          |



**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Phase 2 (grams) | Second | Composite (grams) | Phase 2 (grams) |
|--------|-------------------|-----------------|--------|-------------------|-----------------|
| 230    | 63.150            | 34.397          | 235    | 63.159            | 34.470          |
| 231    | 63.150            | 34.463          | 236    | 63.173            | 34.471          |
| 232    | 63.150            | 34.465          | 237    | 63.193            | 34.472          |
| 233    | 63.150            | 34.466          | 238    | 63.214            | 34.472          |
| 234    | 63.153            | 34.468          | 239    | 63.233            | 34.473          |

**(3)** OXIDES OF NITROGEN EXHAUST EMISSIONS. (a) *Motor vehicles having composite oxides of nitrogen emission limitations in Table 1 of at least 1.5 grams/mile but less than 2.0 grams/mile.*

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 30     | 0.125             | 86     | 0.560             |
| 31     | 0.133             | 87     | 0.561             |
| 32     | 0.141             | 88     | 0.561             |
| 33     | 0.161             | 89     | 0.561             |
| 34     | 0.174             | 90     | 0.561             |
| 35     | 0.180             | 91     | 0.561             |
| 36     | 0.182             | 92     | 0.561             |
| 37     | 0.184             | 93     | 0.561             |
| 38     | 0.185             | 94     | 0.561             |
| 39     | 0.185             | 95     | 0.561             |
| 40     | 0.188             | 96     | 0.561             |
| 41     | 0.195             | 97     | 0.561             |
| 42     | 0.208             | 98     | 0.561             |
| 43     | 0.233             | 99     | 0.563             |
| 44     | 0.246             | 100    | 0.573             |
| 45     | 0.257             | 101    | 0.592             |
| 46     | 0.269             | 102    | 0.617             |
| 47     | 0.280             | 103    | 0.650             |
| 48     | 0.287             | 104    | 0.679             |
| 49     | 0.289             | 105    | 0.694             |
| 50     | 0.300             | 106    | 0.716             |
| 51     | 0.308             | 107    | 0.739             |
| 52     | 0.326             | 108    | 0.745             |
| 53     | 0.348             | 109    | 0.746             |
| 54     | 0.354             | 110    | 0.747             |
| 55     | 0.360             | 111    | 0.758             |
| 56     | 0.368             | 112    | 0.771             |
| 57     | 0.375             | 113    | 0.776             |
| 58     | 0.380             | 114    | 0.783             |
| 59     | 0.382             | 115    | 0.794             |
| 60     | 0.384             | 116    | 0.806             |
| 61     | 0.387             | 117    | 0.810             |
| 62     | 0.389             | 118    | 0.810             |
| 63     | 0.392             | 119    | 0.811             |
| 64     | 0.397             | 120    | 0.818             |
| 65     | 0.400             | 121    | 0.822             |
| 66     | 0.401             | 122    | 0.833             |
| 67     | 0.405             | 123    | 0.842             |
| 68     | 0.413             | 124    | 0.851             |
| 69     | 0.422             | 125    | 0.854             |
| 70     | 0.431             | 126    | 0.854             |
| 71     | 0.441             | 127    | 0.854             |
| 72     | 0.450             | 128    | 0.854             |
| 73     | 0.452             | 129    | 0.854             |
| 74     | 0.453             | 130    | 0.854             |
| 75     | 0.460             | 131    | 0.854             |
| 76     | 0.468             | 132    | 0.854             |
| 77     | 0.485             | 133    | 0.854             |
| 78     | 0.488             | 134    | 0.854             |
| 79     | 0.494             | 135    | 0.854             |
| 80     | 0.505             | 136    | 0.870             |
| 81     | 0.522             | 137    | 0.881             |
| 82     | 0.530             | 138    | 0.887             |
| 83     | 0.536             | 139    | 0.898             |
| 84     | 0.543             | 140    | 0.917             |
| 85     | 0.553             | 141    | 0.941             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 142    | 0.954             | 191    | 2.228             |
| 143    | 0.965             | 192    | 2.265             |
| 144    | 0.978             | 193    | 2.308             |
| 145    | 0.980             | 194    | 2.349             |
| 146    | 0.984             | 195    | 2.389             |
| 147    | 0.988             | 196    | 2.414             |
| 148    | 0.991             | 197    | 2.451             |
| 149    | 0.994             | 198    | 2.474             |
| 150    | 0.996             | 199    | 2.513             |
| 151    | 0.999             | 200    | 2.555             |
| 152    | 1.004             | 201    | 2.600             |
| 153    | 1.008             | 202    | 2.623             |
| 154    | 1.013             | 203    | 2.636             |
| 155    | 1.018             | 204    | 2.638             |
| 156    | 1.024             | 205    | 2.639             |
| 157    | 1.034             | 206    | 2.642             |
| 158    | 1.061             | 207    | 2.659             |
| 159    | 1.100             | 208    | 2.678             |
| 160    | 1.136             | 209    | 2.700             |
| 161    | 1.169             | 210    | 2.714             |
| 162    | 1.193             | 211    | 2.729             |
| 163    | 1.231             | 212    | 2.765             |
| 164    | 1.289             | 213    | 2.799             |
| 165    | 1.333             | 214    | 2.843             |
| 166    | 1.374             | 215    | 2.875             |
| 167    | 1.439             | 216    | 2.918             |
| 168    | 1.479             | 217    | 2.949             |
| 169    | 1.510             | 218    | 2.970             |
| 170    | 1.575             | 219    | 2.998             |
| 171    | 1.650             | 220    | 3.010             |
| 172    | 1.688             | 221    | 3.026             |
| 173    | 1.703             | 222    | 3.029             |
| 174    | 1.726             | 223    | 3.038             |
| 175    | 1.739             | 224    | 3.050             |
| 176    | 1.751             | 225    | 3.053             |
| 177    | 1.762             | 226    | 3.054             |
| 178    | 1.790             | 227    | 3.054             |
| 179    | 1.817             | 228    | 3.055             |
| 180    | 1.847             | 229    | 3.055             |
| 181    | 1.877             | 230    | 3.055             |
| 182    | 1.909             | 231    | 3.055             |
| 183    | 1.940             | 232    | 3.056             |
| 184    | 1.970             | 233    | 3.056             |
| 185    | 2.005             | 234    | 3.056             |
| 186    | 2.062             | 235    | 3.056             |
| 187    | 2.103             | 236    | 3.057             |
| 188    | 2.138             | 237    | 3.057             |
| 189    | 2.171             | 238    | 3.057             |
| 190    | 2.198             | 239    | 3.057             |

(b) Motor vehicles having composite oxides of nitrogen emission limitations in Table 1 of at least 2.0 grams/mile but less than 2.5 grams/mile.

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 30     | 0.167             | 42     | 0.277             |
| 31     | 0.177             | 43     | 0.311             |
| 32     | 0.188             | 44     | 0.328             |
| 33     | 0.214             | 45     | 0.343             |
| 34     | 0.232             | 46     | 0.359             |
| 35     | 0.240             | 47     | 0.373             |
| 36     | 0.243             | 48     | 0.383             |
| 37     | 0.245             | 49     | 0.385             |
| 38     | 0.246             | 50     | 0.400             |
| 39     | 0.246             | 51     | 0.410             |
| 40     | 0.250             | 52     | 0.434             |
| 41     | 0.260             | 53     | 0.464             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 54     | 0.472             | 119    | 1.081             |
| 55     | 0.480             | 120    | 1.091             |
| 56     | 0.491             | 121    | 1.096             |
| 57     | 0.500             | 122    | 1.111             |
| 58     | 0.506             | 123    | 1.122             |
| 59     | 0.509             | 124    | 1.135             |
| 60     | 0.512             | 125    | 1.138             |
| 61     | 0.516             | 126    | 1.139             |
| 62     | 0.519             | 127    | 1.139             |
| 63     | 0.523             | 128    | 1.139             |
| 64     | 0.529             | 129    | 1.139             |
| 65     | 0.533             | 130    | 1.139             |
| 66     | 0.535             | 131    | 1.139             |
| 67     | 0.540             | 132    | 1.139             |
| 68     | 0.551             | 133    | 1.139             |
| 69     | 0.563             | 134    | 1.139             |
| 70     | 0.575             | 135    | 1.139             |
| 71     | 0.588             | 136    | 1.160             |
| 72     | 0.600             | 137    | 1.174             |
| 73     | 0.603             | 138    | 1.183             |
| 74     | 0.604             | 139    | 1.197             |
| 75     | 0.613             | 140    | 1.223             |
| 76     | 0.624             | 141    | 1.255             |
| 77     | 0.646             | 142    | 1.272             |
| 78     | 0.651             | 143    | 1.286             |
| 79     | 0.659             | 144    | 1.304             |
| 80     | 0.673             | 145    | 1.307             |
| 81     | 0.696             | 146    | 1.312             |
| 82     | 0.706             | 147    | 1.317             |
| 83     | 0.716             | 148    | 1.321             |
| 84     | 0.724             | 149    | 1.325             |
| 85     | 0.737             | 150    | 1.328             |
| 86     | 0.747             | 151    | 1.332             |
| 87     | 0.748             | 152    | 1.338             |
| 88     | 0.748             | 153    | 1.344             |
| 89     | 0.748             | 154    | 1.350             |
| 90     | 0.748             | 155    | 1.357             |
| 91     | 0.748             | 156    | 1.365             |
| 92     | 0.748             | 157    | 1.379             |
| 93     | 0.748             | 158    | 1.414             |
| 94     | 0.748             | 159    | 1.466             |
| 95     | 0.748             | 160    | 1.514             |
| 96     | 0.748             | 161    | 1.559             |
| 97     | 0.748             | 162    | 1.591             |
| 98     | 0.748             | 163    | 1.641             |
| 99     | 0.751             | 164    | 1.719             |
| 100    | 0.764             | 165    | 1.777             |
| 101    | 0.789             | 166    | 1.832             |
| 102    | 0.822             | 167    | 1.919             |
| 103    | 0.867             | 168    | 1.972             |
| 104    | 0.905             | 169    | 2.013             |
| 105    | 0.925             | 170    | 2.100             |
| 106    | 0.955             | 171    | 2.200             |
| 107    | 0.985             | 172    | 2.251             |
| 108    | 0.993             | 173    | 2.270             |
| 109    | 0.995             | 174    | 2.301             |
| 110    | 0.996             | 175    | 2.318             |
| 111    | 1.010             | 176    | 2.335             |
| 112    | 1.028             | 177    | 2.349             |
| 113    | 1.034             | 178    | 2.387             |
| 114    | 1.044             | 179    | 2.423             |
| 115    | 1.059             | 180    | 2.462             |
| 116    | 1.075             | 181    | 2.503             |
| 117    | 1.080             | 182    | 2.545             |
| 118    | 1.080             | 183    | 2.586             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 184    | 2.627             | 212    | 3.686             |
| 185    | 2.673             | 213    | 3.732             |
| 186    | 2.749             | 214    | 3.791             |
| 187    | 2.804             | 215    | 3.833             |
| 188    | 2.851             | 216    | 3.890             |
| 189    | 2.894             | 217    | 3.932             |
| 190    | 2.931             | 218    | 3.960             |
| 191    | 2.971             | 219    | 3.997             |
| 192    | 3.020             | 220    | 4.013             |
| 193    | 3.077             | 221    | 4.035             |
| 194    | 3.132             | 222    | 4.038             |
| 195    | 3.185             | 223    | 4.050             |
| 196    | 3.219             | 224    | 4.066             |
| 197    | 3.268             | 225    | 4.070             |
| 198    | 3.299             | 226    | 4.072             |
| 199    | 3.350             | 227    | 4.072             |
| 200    | 3.406             | 228    | 4.073             |
| 201    | 3.466             | 229    | 4.073             |
| 202    | 3.497             | 230    | 4.073             |
| 203    | 3.514             | 231    | 4.073             |
| 204    | 3.517             | 232    | 4.074             |
| 205    | 3.519             | 233    | 4.074             |
| 206    | 3.523             | 234    | 4.075             |
| 207    | 3.545             | 235    | 4.075             |
| 208    | 3.570             | 236    | 4.076             |
| 209    | 3.600             | 237    | 4.076             |
| 210    | 3.619             | 238    | 4.076             |
| 211    | 3.639             | 239    | 4.076             |

(c) Motor vehicles having composite oxides of nitrogen emission limitations in Table 1 of at least 2.5 grams/mile but less than 3.0 grams/mile.

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 30     | 0.262             | 63     | 0.703             |
| 31     | 0.275             | 64     | 0.707             |
| 32     | 0.301             | 65     | 0.711             |
| 33     | 0.317             | 66     | 0.716             |
| 34     | 0.327             | 67     | 0.721             |
| 35     | 0.330             | 68     | 0.726             |
| 36     | 0.332             | 69     | 0.742             |
| 37     | 0.334             | 70     | 0.759             |
| 38     | 0.336             | 71     | 0.773             |
| 39     | 0.337             | 72     | 0.784             |
| 40     | 0.354             | 73     | 0.790             |
| 41     | 0.366             | 74     | 0.794             |
| 42     | 0.410             | 75     | 0.799             |
| 43     | 0.414             | 76     | 0.809             |
| 44     | 0.438             | 77     | 0.821             |
| 45     | 0.477             | 78     | 0.833             |
| 46     | 0.506             | 79     | 0.839             |
| 47     | 0.518             | 80     | 0.844             |
| 48     | 0.522             | 81     | 0.857             |
| 49     | 0.526             | 82     | 0.870             |
| 50     | 0.554             | 83     | 0.883             |
| 51     | 0.574             | 84     | 0.894             |
| 52     | 0.587             | 85     | 0.902             |
| 53     | 0.601             | 86     | 0.907             |
| 54     | 0.615             | 87     | 0.910             |
| 55     | 0.629             | 88     | 0.912             |
| 56     | 0.643             | 89     | 0.913             |
| 57     | 0.667             | 90     | 0.914             |
| 58     | 0.678             | 91     | 0.915             |
| 59     | 0.683             | 92     | 0.916             |
| 60     | 0.686             | 93     | 0.917             |
| 61     | 0.693             | 94     | 0.918             |
| 62     | 0.699             | 95     | 0.919             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 96     | 0.920             | 161    | 2.050             |
| 97     | 0.921             | 162    | 2.131             |
| 98     | 0.922             | 163    | 2.235             |
| 99     | 0.924             | 164    | 2.320             |
| 100    | 0.929             | 165    | 2.395             |
| 101    | 0.941             | 166    | 2.488             |
| 102    | 0.970             | 167    | 2.563             |
| 103    | 1.027             | 168    | 2.645             |
| 104    | 1.093             | 169    | 2.746             |
| 105    | 1.155             | 170    | 2.778             |
| 106    | 1.234             | 171    | 2.792             |
| 107    | 1.275             | 172    | 2.810             |
| 108    | 1.305             | 173    | 2.847             |
| 109    | 1.320             | 174    | 2.874             |
| 110    | 1.332             | 175    | 2.905             |
| 111    | 1.346             | 176    | 2.950             |
| 112    | 1.358             | 177    | 3.001             |
| 113    | 1.378             | 178    | 3.047             |
| 114    | 1.406             | 179    | 3.104             |
| 115    | 1.426             | 180    | 3.173             |
| 116    | 1.438             | 181    | 3.238             |
| 117    | 1.448             | 182    | 3.302             |
| 118    | 1.460             | 183    | 3.372             |
| 119    | 1.462             | 184    | 3.452             |
| 120    | 1.467             | 185    | 3.545             |
| 121    | 1.476             | 186    | 3.648             |
| 122    | 1.494             | 187    | 3.701             |
| 123    | 1.505             | 188    | 3.759             |
| 124    | 1.517             | 189    | 3.821             |
| 125    | 1.546             | 190    | 3.870             |
| 126    | 1.569             | 191    | 3.892             |
| 127    | 1.586             | 192    | 3.914             |
| 128    | 1.596             | 193    | 3.955             |
| 129    | 1.603             | 194    | 3.997             |
| 130    | 1.605             | 195    | 4.035             |
| 131    | 1.606             | 196    | 4.089             |
| 132    | 1.607             | 197    | 4.146             |
| 133    | 1.607             | 198    | 4.206             |
| 134    | 1.608             | 199    | 4.243             |
| 135    | 1.614             | 200    | 4.295             |
| 136    | 1.616             | 201    | 4.351             |
| 137    | 1.631             | 202    | 4.398             |
| 138    | 1.643             | 203    | 4.410             |
| 139    | 1.656             | 204    | 4.419             |
| 140    | 1.673             | 205    | 4.426             |
| 141    | 1.703             | 206    | 4.429             |
| 142    | 1.739             | 207    | 4.453             |
| 143    | 1.767             | 208    | 4.486             |
| 144    | 1.774             | 209    | 4.542             |
| 145    | 1.785             | 210    | 4.598             |
| 146    | 1.806             | 211    | 4.638             |
| 147    | 1.830             | 212    | 4.715             |
| 148    | 1.844             | 213    | 4.774             |
| 149    | 1.845             | 214    | 4.829             |
| 150    | 1.846             | 215    | 4.872             |
| 151    | 1.852             | 216    | 4.931             |
| 152    | 1.868             | 217    | 4.981             |
| 153    | 1.877             | 218    | 5.017             |
| 154    | 1.879             | 219    | 5.029             |
| 155    | 1.886             | 220    | 5.033             |
| 156    | 1.900             | 221    | 5.037             |
| 157    | 1.910             | 222    | 5.047             |
| 158    | 1.936             | 223    | 5.057             |
| 159    | 1.954             | 224    | 5.061             |
| 160    | 1.986             | 225    | 5.062             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 226    | 5.063             | 233    | 5.067             |
| 227    | 5.063             | 234    | 5.068             |
| 228    | 5.063             | 235    | 5.069             |
| 229    | 5.063             | 236    | 5.070             |
| 230    | 5.064             | 237    | 5.070             |
| 231    | 5.065             | 238    | 5.070             |
| 232    | 5.066             | 239    | 5.070             |

(d) *Motor vehicles having composite oxides of nitrogen emission limitations in Table 1 of 3.0 grams/mile or greater.*

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 30     | 0.419             | 85     | 1.310             |
| 31     | 0.425             | 86     | 1.319             |
| 32     | 0.431             | 87     | 1.320             |
| 33     | 0.449             | 88     | 1.337             |
| 34     | 0.476             | 89     | 1.348             |
| 35     | 0.497             | 90     | 1.361             |
| 36     | 0.515             | 91     | 1.366             |
| 37     | 0.516             | 92     | 1.369             |
| 38     | 0.519             | 93     | 1.373             |
| 39     | 0.527             | 94     | 1.375             |
| 40     | 0.542             | 95     | 1.377             |
| 41     | 0.560             | 96     | 1.379             |
| 42     | 0.598             | 97     | 1.381             |
| 43     | 0.616             | 98     | 1.383             |
| 44     | 0.645             | 99     | 1.385             |
| 45     | 0.670             | 100    | 1.399             |
| 46     | 0.691             | 101    | 1.405             |
| 47     | 0.716             | 102    | 1.466             |
| 48     | 0.735             | 103    | 1.485             |
| 49     | 0.765             | 104    | 1.546             |
| 50     | 0.802             | 105    | 1.623             |
| 51     | 0.836             | 106    | 1.699             |
| 52     | 0.868             | 107    | 1.760             |
| 53     | 0.890             | 108    | 1.788             |
| 54     | 0.918             | 109    | 1.798             |
| 55     | 0.936             | 110    | 1.842             |
| 56     | 0.947             | 111    | 1.864             |
| 57     | 0.958             | 112    | 1.888             |
| 58     | 0.970             | 113    | 1.905             |
| 59     | 0.982             | 114    | 1.920             |
| 60     | 0.994             | 115    | 1.926             |
| 61     | 1.019             | 116    | 1.939             |
| 62     | 1.042             | 117    | 1.958             |
| 63     | 1.049             | 118    | 1.972             |
| 64     | 1.058             | 119    | 1.981             |
| 65     | 1.062             | 120    | 1.987             |
| 66     | 1.064             | 121    | 1.991             |
| 67     | 1.070             | 122    | 1.996             |
| 68     | 1.077             | 123    | 2.012             |
| 69     | 1.085             | 124    | 2.040             |
| 70     | 1.092             | 125    | 2.060             |
| 71     | 1.101             | 126    | 2.069             |
| 72     | 1.111             | 127    | 2.092             |
| 73     | 1.121             | 128    | 2.114             |
| 74     | 1.131             | 129    | 2.132             |
| 75     | 1.141             | 130    | 2.144             |
| 76     | 1.159             | 131    | 2.152             |
| 77     | 1.164             | 132    | 2.157             |
| 78     | 1.186             | 133    | 2.160             |
| 79     | 1.221             | 134    | 2.163             |
| 80     | 1.260             | 135    | 2.165             |
| 81     | 1.268             | 136    | 2.168             |
| 82     | 1.272             | 137    | 2.171             |
| 83     | 1.277             | 138    | 2.186             |
| 84     | 1.288             | 139    | 2.235             |

**Table 3 (continued)**  
**Fast-Pass Emission Limitations For The Transient Emission Test**

| Second | Composite (grams) | Second | Composite (grams) |
|--------|-------------------|--------|-------------------|
| 140    | 2.298             | 190    | 4.696             |
| 141    | 2.333             | 191    | 4.731             |
| 142    | 2.373             | 192    | 4.780             |
| 143    | 2.406             | 193    | 4.837             |
| 144    | 2.416             | 194    | 4.876             |
| 145    | 2.420             | 195    | 4.928             |
| 146    | 2.424             | 196    | 4.972             |
| 147    | 2.435             | 197    | 5.025             |
| 148    | 2.455             | 198    | 5.104             |
| 149    | 2.471             | 199    | 5.189             |
| 150    | 2.484             | 200    | 5.275             |
| 151    | 2.495             | 201    | 5.336             |
| 152    | 2.509             | 202    | 5.366             |
| 153    | 2.522             | 203    | 5.387             |
| 154    | 2.533             | 204    | 5.427             |
| 155    | 2.541             | 205    | 5.444             |
| 156    | 2.552             | 206    | 5.447             |
| 157    | 2.589             | 207    | 5.477             |
| 158    | 2.631             | 208    | 5.520             |
| 159    | 2.704             | 209    | 5.560             |
| 160    | 2.758             | 210    | 5.603             |
| 161    | 2.802             | 211    | 5.657             |
| 162    | 2.904             | 212    | 5.698             |
| 163    | 2.960             | 213    | 5.762             |
| 164    | 3.027             | 214    | 5.836             |
| 165    | 3.127             | 215    | 5.944             |
| 166    | 3.187             | 216    | 6.008             |
| 167    | 3.306             | 217    | 6.040             |
| 168    | 3.384             | 218    | 6.072             |
| 169    | 3.467             | 219    | 6.089             |
| 170    | 3.565             | 220    | 6.101             |
| 171    | 3.640             | 221    | 6.118             |
| 172    | 3.718             | 222    | 6.126             |
| 173    | 3.781             | 223    | 6.139             |
| 174    | 3.827             | 224    | 6.145             |
| 175    | 3.852             | 225    | 6.148             |
| 176    | 3.903             | 226    | 6.150             |
| 177    | 3.930             | 227    | 6.151             |
| 178    | 3.970             | 228    | 6.152             |
| 179    | 4.015             | 229    | 6.153             |
| 180    | 4.074             | 230    | 6.154             |
| 181    | 4.159             | 231    | 6.156             |
| 182    | 4.230             | 232    | 6.157             |
| 183    | 4.286             | 233    | 6.159             |
| 184    | 4.334             | 234    | 6.160             |
| 185    | 4.388             | 235    | 6.162             |
| 186    | 4.447             | 236    | 6.163             |
| 187    | 4.505             | 237    | 6.164             |
| 188    | 4.561             | 238    | 6.166             |
| 189    | 4.625             | 239    | 6.168             |

**History:** Renum. from NR 154.17 (3) and am. Register, September, 1986, No. 369, eff. 11-1-86; am. Table, Register, February, 1990, No. 410, eff. 3-1-90; r. and recr. Register, December, 1995, No. 480, eff. 1-1-96; am. (9) (b), Register, January, 1997, No. 493, eff. 2-1-97; r. and recr. Table 1 (3), renum. Table 3, (1) (a) to (c), (2) (a) to (c) and (3) (a) to (c) to be (1) (b) to (d), (2) (b) to (d) and (3) (b) to (d), Register, November, 1998, No. 515, eff. 12-1-98; am. (2) (c), (8) (a), (b), (10) (intro.), r. and recr. Table 3 (1) (a), (2) (a) and (3) (a), r. Table 1 (5), Register, November, 1999, No. 527, eff. 12-1-99; renum. (9) (a) to be (9), r. (9) (b), Register, January, 2001, No. 541, eff. 2-1-01; CR 05-072: am. Table 1 (4) (title) and cr. Table 1 (5) Register March 2006 No. 603, eff. 4-1-06; **CR 10-049: am. (2) (intro.), (7) (title), (9), r. (3), (4), (6), (7) (a) (title), (b), (8), Table 2, 4, Register November 2010 No. 659, eff. 12-1-10.**

**NR 485.045 Repair cost limit for vehicle inspection program.** (1) **REPAIR COST LIMIT.** For vehicles subject to the motor vehicle emission inspection program under s. 110.20 (6),

Stats., the repair cost limit for determining eligibility for a waiver of compliance under s. 110.20 (13), Stats., from the emission limitations of s. NR 485.04, shall be established in accordance with 42 USC 7511a (b) (4) or (c) (3) (C), and regulations promulgated thereunder, and shall equal the higher of \$450 or an amount calculated from a base of \$450 and adjusted annually, beginning in 1989, by the percentage, if any, by which the consumer price index, as defined in section 502 (b) (3) (B) (v) of the Act (42 USC 7661a (b) (3) (B) (v)), has been adjusted.

(2) **CERTIFICATION OF REPAIR COST LIMIT.** Beginning in 1994, by April 1 of each year the department shall certify to DOT the amount of the repair cost limit calculated under sub. (1) for

determining eligibility for a waiver of compliance under s. 110.20 (13), Stats., for the subsequent 12 month period of July 1 through June 30.

**History:** Emerg. cr. eff. 11-15-92; cr. Register, June, 1993, No. 450, eff. 7-1-93; r. (1) (a), Register, December, 1995, No. 480, eff. 1-1-96; **CR 10-049; renum. (1) (intro.) to be (1) and am., r. (1) (b), (c) Register November 2010 No. 659, eff. 12-1-10; correction in (2) made under s. 13.92. (4) (b) 7., Stats., Register November 2010 No. 659.**

**NR 485.05 Visible emission limits for motor vehicles, internal combustion engines and mobile sources.** No person may cause, allow or permit visible emissions in amounts greater than the following limitations, except when uncombined water is the cause for violation:

(1) Gasoline-powered internal combustion engines of 25 HP or more, or gasoline-powered motor vehicles: no visible emissions for longer than 5 consecutive seconds.

(2) Diesel-powered motor vehicles of model year 1970 or later: emissions of shade or density greater than number 1 on the Ringelmann chart or 20% opacity for longer than 10 consecutive seconds.

(3) Diesel-powered motor vehicles of model year 1969 or earlier: emissions of shade or density greater than number 2 on the Ringelmann chart or 40% opacity for longer than 10 consecutive seconds.

(4) Ships, locomotives, or semistationary diesel engines: emissions of shade or density greater than number 2 on the Ringelmann chart or 40% opacity for longer than an aggregate time of 5 minutes in any 30-minute period. At no time may emissions exceed a shade or density greater than number 4 on the Ringelmann chart or 80% opacity.

**History:** Renum. from NR 154.17 (4), Register, September, 1986, No. 369, eff. 10-1-86; am. (intro.) Register, July, 1989, No. 403, eff. 8-1-89; am. (intro.) and (4), Register, May, 1992, No. 437, eff. 6-1-92.

**NR 485.055 Particulate emission limit for gasoline and diesel internal combustion engines.** No person may cause, allow or permit the emissions of particulate matter to the ambient air from stationary or semistationary gasoline or diesel powered internal combustion reciprocating engines in excess of 0.50 pound of particulate per million Btu heat input.

**History:** Cr. Register, June, 1994, No. 462, eff. 7-1-94.

**NR 485.06 Tampering with air pollution control equipment.** (1) No person may tamper with or fail to maintain in good working order any air pollution control equipment which has been installed on a motor vehicle by the manufacturer prior to sale unless the person repairs or restores the equipment or replaces the equipment with new identical or comparable tested replacement equipment. Catalytic converters must be original equipment or EPA-certified equipment except as specified in sub. (2). Air pollution control equipment includes but is not limited to:

- (a) Positive crankcase ventilation equipment.
- (b) Exhaust emission control equipment.
- (c) Evaporative fuel loss control equipment.
- (d) Any control equipment operating on principles such as thermal decomposition, catalytic oxidation or reduction, absorption, or adsorption.

(2) (a) Notwithstanding sub. (1), any person may replace the catalytic converter with aftermarket equipment certified by the U.S. environmental protection agency (EPA) on the following categories of vehicles:

- 1. All vehicles of model year 1994 or earlier.
- 2. For vehicles of model year 1995 or later, those vehicles which are at least 8 model years older than the current model year, or those vehicles with more than 80,000 miles on the odometer.

(b) If the catalytic converter is replaced, the owner of the vehicle shall provide a receipt or other evidence showing that the replacement converter has been certified by EPA.

**History:** Renum. from NR 154.17 (2), Register, September, 1986, No. 369, eff. 10-1-86; renum. (intro.) to (4) to (1) (a) to (d) and cr. (2), Register, July, 1989, No. 403, eff. 8-1-89; CR 05-072: am. (2) Register March 2006 No. 603, eff. 4-1-06.

**NR 485.07 Inspection requirement for motor vehicle tampering.** (1) **APPLICABILITY.** This section applies to any motor vehicle which is subject to an air pollution control equipment inspection under s. 110.20 (6) (b), Stats., or which is inspected for tampering of air pollution control equipment.

(2) **RECORDS AND COMPLIANCE.** DOT or its designee shall maintain a record of vehicles failing the tampering inspection conducted under either s. 110.20 (6) (b), Stats., or any other enforcement mechanism. DOT may not register or renew registration of a failed vehicle until evidence of repair, replacement or restoration of the failed or missing parts is provided to DOT or its designee, and DOT or its designee reinspects the vehicle for the failed or missing parts.

(3) **FULL TAMPERING INSPECTION PROCEDURE.** (a) Full tampering inspections shall consist of a visual check for the presence and proper connection of the following air pollution control equipment: the positive crankcase ventilation (PCV) valve and connections; the evaporative emissions control canister; the exhaust system catalytic converter and oxygen sensor; the exhaust gas recirculation (EGR) assembly; the air pump, belts and hoses or the air injector assembly; the fuel inlet restrictor; a properly seated gas tank fill cap; and the thermostatic air cleaner/filter assembly. A vehicle shall fail the tampering inspection if this check indicates any evidence of tampering.

(b) Full tampering inspections shall also include a visual check of the status and operation of any emission service indicator light which has been installed on the motor vehicle by the manufacturer prior to sale. A vehicle shall fail the tampering inspection if the status of this light indicates an emission malfunction or if the light is not operational.

(c) Full tampering inspections may also include a test for the presence of lead deposits in the tailpipe if the vehicle is required to use unleaded gasoline. Evidence of the use of leaded fuel in vehicles requiring the use of unleaded fuel as shown by the presence of lead in the tailpipe, the presence of leaded fuel in the gas tank or evidence of current or previous tampering with the fuel inlet restrictor shall constitute tampering with the catalytic converter and the exhaust oxygen sensor if the vehicle originally had that equipment. When evidence of fuel inlet tampering is found, and a tailpipe lead test indicates the absence of lead deposits, DOT or its designee may waive the requirement to repair, replace or restore the catalytic converter and oxygen sensor equipment if the following conditions are met:

1. A full tampering inspection of the vehicle indicates no additional tampering.

2. The owner of the vehicle provides evidence to DOT or its designee that the catalytic converter and oxygen sensor were replaced subsequent to April 1, 1988, or the owner provides evidence to DOT or its designee that a previously tampered with but partially restored and functional fuel inlet restrictor was installed in the vehicle prior to or concurrently with the replacement of the catalytic converter and oxygen sensor, or DOT or its designee determines that the particular vehicle model is on a list of vehicle models that chronically fail the fuel inlet restrictor test due to improper new vehicle equipment design, improper new vehicle equipment installation or normal extended wear.

(4) **SUBSTITUTE PROCEDURE.** Upon written department approval granted to DOT, a partial tampering inspection procedure may be substituted for the full inspection procedure in sub. (3), provided that use of the substitute procedure maintains the inspection program effectiveness in terms of adequate pollution



reduction and adequate identification and repair of tampered and misfueled vehicles and improperly maintained emission control equipment.

**(5) PROCEDURE REVIEW.** The department shall review the tampering inspection procedure in effect prior to each DOT inspection contract or contract extension. Upon such review, the department may withdraw or alter any substitute procedure approved under sub. (4).

**History:** Cr. Register, July, 1989, No. 403, eff. 8-1-89; am. (4) (a) (intro.), Register, May, 1992, No. 437, eff. 6-1-92; am. (1), (2), (3) (a) and (5), r. (3) (c), renum. (3) (b) to be (3) (c) and am. (intro.), cr. (3) (b), r. and recr. (4), Register, December, 1995, No. 480, eff. 1-1-96; am. (3) (c) (intro.), Register, January, 1997, No. 493, eff. 2-1-97.